Medi-Cal DRG Project Policy Design Document 9/26/13

Submitted to the California
Department of Health Care Services

September 26, 2013
Revision of May 1, 2012, Policy Design Document, W250

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Document Version: 3.0 (September 2013).

Note to Readers

This document incorporates updates made to the Medi-Cal DRG Project: Policy Design Document since its release on May 1, 2012. The Policy Design Document describes the structure and components of the Medi-Cal payment method for hospital inpatient services based on diagnosis related groups (DRGs). In general this updated version is intended to provide additional specification to the structure of the payment policies and to reflect changes made since May 2012. The updates include specifications such as adoption of a 3.5 percent documentation, coding and capture adjustment; the final process for setting DRG statewide and transition base prices; the adoption of final values for outlier thresholds, policy, and age adjustors; payment policy for administrative days and rehabilitation stays, and the timeline for DRG version changes and the ICD-10 interface.

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Letter of Transmittal

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September 26, 2013

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RE: Medi-Cal DRG Project: Policy Design Document (PDD)

Dear Mari:

It is my pleasure to submit this Policy Design Document with our recommendations for the new hospital inpatient payment method, per the revised Statement of Work dated July 18, 2012 (FI letter A1731).

This document reflects the Department of Health Care Services' (DHCS) decisions for the design of the payment method. Our emphasis is on the structure of the payment method. Based on history in California and elsewhere, this payment method could remain in place for 10, 20 or more years. It is therefore designed to be flexible in accommodating future policy decisions. In particular, nothing in this document specifies the levels of payment that will be made for specific medical conditions or to specific hospitals when the new method is implemented. We will continue to advise and assist DHCS in implementing these decisions. We should also note that all discussion of federal and state law is from a policy analyst's perspective and is not legal advice to DHCS.

In preparing this document, we have greatly benefited from advice and assistance from many state staff, as listed below. We would like to particularly thank Becky Swol, Dr. Robert Dimand, Dr. Laura Ann Halliday, Robert Kvick, William Lau, Jan Rains, Belinda Rowan, Richard Luu, Kelli Shaw, Elizabeth Touhey, Pilar Williams and you. At the initiation of the project, our instructions from Medicaid Director Toby Douglas were to run a very transparent and consultative development process. Input and suggestions from the consultation group convened by the California Hospital Association have been very helpful indeed. We thank Matt Absher, Anne McLeod, Amber Ott and the many hospital executives who gave their time to this effort.

Much of our analysis was illuminated by review of paid claims in CY 2009. The analytical dataset, and a subset that became the simulation baseline dataset, are described in a separate report, *Medi-Cal DRG Project: Summary of Analytical Dataset* (December 2011). We also would like to acknowledge our use of APR-DRG grouping software created, owned and licensed by the 3M Company. We very much appreciate the assistance provided by Jack Ijams, Elizabeth McCullough, Richard Fuller and their colleagues at 3M Health Information Systems, but we emphasize that 3M bears no responsibility for the judgments we have made in using the 3M software.

Anyone with questions may feel free to contact me at 262.365.3592 or dawn.weimar@xerox.com.

Sincerely,

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Acronyms

ALOS	Average length of stay
APR-DRGs	All Patient Refined Diagnosis Related Groups. APR-DRGs are proprietary software created, owned and licensed by the 3M Company. All copyrights in and to the 3M™ Software are owned by 3M. All rights reserved.
CA-MMIS	California Medicaid Management Information System, which is the Medi-Cal claims processing system
CC	Complications and comorbidities
CCR	Cost-to-charge ratio (also referred to as interim rate)
CCS	California Children's Services. This program is a partnership between local county health departments and DHCS Children's Medical Services, providing healthcare services to children from birth up to 21 years of age with CCS-eligible medical conditions
CHA	California Hospital Association
CMAC	California Medical Assistance Commission. The state agency that contracted and negotiated per diem rates with hospitals under the Medi-Cal SPCP
CMS	Centers for Medicare and Medicaid Services
CY	Calendar year
DHCS	Department of Health Care Services
DPH	Designated public hospital
DRG	Diagnosis related groups
DSH	Disproportionate share hospitals
EDI	Electronic data interchange
ER	Emergency room
FAQ	Frequently asked questions
FDOS	First date of service
FFS	Fee for service
FFY	Federal fiscal year
GHPP	Genetically Handicapped Persons Program
HACs	Hospital-acquired conditions
HCACs	Health care-acquired conditions
HCPCS	Healthcare Common Procedure Coding System
HFMA	Healthcare Financial Management Association
HSCRC	Maryland Health Services Cost Review Commission
ICD-10-CM	International Classification of Diseases, 10th Edition, Clinical Modification
ICD-10-PCS	International Classification of Diseases, 10th Edition, Procedure Coding System
IPPS	Medicare's Inpatient Prospective Payment System
LDOS	Last date of service
MACPAC	Medicaid and CHIP Payment Advisory Commission, a Congressional agency
Medi-Cal	The California Medicaid program
MedPAC	Medicare Payment Advisory Commission, a Congressional agency
MEDPAR	Medicare Provider Analysis and Review
MMIS	Refers to the CA-MMIS claims payment system
MS-DRGs	Medicare Severity Diagnosis Related Groups
NCD	National Coverage Determination memoranda
NDPH	Non-designated public hospital
OHC	Other health coverage

OSHPD	California Office of Statewide Health Planning and Development
POA	Present-on-admission indicator
PDD	Policy design document, that is, this document
PPACA	Patient Protection and Affordable Care Act
PPC	Provider preventable condition; also potentially preventable complication
SAR	Service authorization request
SFY	State fiscal year
SNFD	Safety Net Financing Division, a division within DHCS
SOC	Share of cost
SPCP	Selective provider contracting program, that is, the payment method for the Medi-Cal program (contract hospitals) prior to APR-DRG implementation
TAR	Treatment authorization request
TBD	To be determined
TOB	Type of bill, a field on the standard UB-04 inpatient claim form
VA	Veterans Administration

Summary: Policy Design Components

#	Item	Description
1	**Scope of Payment Method**	
1.1	Goals of the project	Design a new payment method for hospital inpatient care based on Diagnosis Related Groups (DRGs).
1.2	Time horizon	The new payment method can be expected to be in place for 10 to 20 years or more. The payment method structure must be robust, readily updated, and flexible enough to accommodate future changes in payment policy.
1.3	Principles in recommending payment policy	Access: Encourage access by setting higher payments for sicker patients. Efficiency: Reward efficiency by allowing hospitals to retain savings from decreased LOS and decreased cost per day. Transparency: Improve transparency and understanding by defining the "product" of a hospital in a way that makes sense to both clinical and financial managers. Fairness: Improve fairness so that (a) different hospitals receive similar payment for similar care and (b) payments to hospitals are adjusted for significant cost factors that are outside the hospital's control. Administrative ease: Make changes in a way that reduces administrative burden on hospitals and DHCS. Data integrity: Make payment depend on data inputs that have high consistency and credibility. Quality: Facilitate improvement of quality and outcomes.
1.4	Key dates	• Analytical dataset: 12/22/11 • Updated policy design document: 9/26/2013 • Implementation: 07/01/13
1.5	Previous payment method	Non-contracted hospitals: A cost-based method with payments made on an interim basis (cost-to-charge) and a cost settlement process. SPCP or contracted hospitals: Per diem rates negotiated with the California Medical Assistance Commission (CMAC).
1.6	Affected providers	Included: in-state and out-of-state general acute care hospitals, including critical access hospitals. Excluded: designated public hospitals, psychiatric hospitals, rehabilitation hospitals (including alcohol and drug rehabilitation) and rehabilitation units at general hospitals. Non-designated public hospitals: Non-designated public hospitals will transition to DRG payment starting with admissions beginning on January 1, 2014.
1.7	Affected claims	Included: All inpatient claims in general acute care hospitals. Excluded: Rehabilitation stays at general acute care facilities and at specialty rehabilitation facilities (identified by rehabilitation revenue codes used in the previous payment method) and alcohol and drug rehabilitation, long-term care swing bed stays, managed care stays, administrative days and Medicare crossovers.

#	Item	Description
1.8	Beneficiaries with dual eligibility	Medicare crossover claims will not be part of the DRG logic, including HCACs. Crossover claims will not be grouped for analysis purposes. Medi-Cal primary claims for beneficiaries with dual eligibility will be paid like other claims where Medi-Cal is primary.
1.9	Out-of-state claims	Claims from out-of-state hospitals are included in the DRG-based payment in the same way as California hospitals, with negotiated payment in extremely rare situations where complex medical services and surgical procedures otherwise would be unavailable.
1.10	Hospice	Excluded: Inpatient hospice (provider type 39).
1.11	Affected programs	Included: all Inpatient Medi-Cal fee-for-service, CCS only, GHPP only.
1.12	Medi-Cal managed care	Medi-Cal managed care plans (MCPs) will pay for emergency and post-stabilization acute inpatient services provided by out-of-network general acute care hospitals based on diagnosis related groups effective July 1, 2013.
1.13	Analytical and simulation datasets and ratesetting	• Calendar year 2009 (January – December 2009). • Database consisted of claims payment data from CA-MMIS and diagnosis/procedure data from OSHPD data. • Analytical Dataset: 538,470 stays, approximately $3.5 billion in payments. • Simulation baseline dataset: 446,715 stays, approximately $2.6 billion in CY 2009 payments. • Ratesetting: 406,164 stays, approximately $2.6 billion in FY 2013-14 payments.
2	**Casemix Measurement and Relative Weights**	
2.1	Overview of DRG payment calculations	This section is a general discussion of DRG pricing principles, not specific to California.
2.2	Casemix measurement	Measured using All Patient Refined Diagnosis Related Groups (APR-DRG) software.
2.3	DRG grouper version	• Version 29 (released in 10/2011), which has been used for analysis and simulation, will be implemented July 1, 2013. • Version 31 will be used on July 1, 2014. • ICD-10 Version 31 will be used on October 1, 2014. • Annual updates may occur each July 1 thereafter.
2.4	ICD-10 impact	APR-DRGs to be implemented before ICD-10. In general, CA-MMIS will have a crosswalk, but for inpatient stays, the crosswalk will not be used. The ICD-10 codes will be passed to the APR-DRG grouper. On July 1, 2014, Version 31 will be used with ICD-9-CM coding. On October 1, 2013, Version.31 will be used with ICD-10 coding.
2.5	Relative weights	The national weights do fit the Medi-Cal data well. DHCS adopted the national weights calculated by 3M for the APR-DRG grouper.
2.6	Policy adjustor functionality	The DRG design includes functionality for policy adjustors. Policy adjustors: • Neonate DRGs at designated NICU hospitals (as defined by CCS): 1.75. • Neonate DRGs at all other hospitals: 1.25.

#	Item	Description
2.7	Age adjustor functionality	The DRG design includes functionality for age adjustors. Age adjustor is applied based on DRGs in specified Medicaid care categories (MCC). Age adjustor for DRGs in pediatric-miscellaneous and pediatric-respiratory MCCs = 1.25.
2.8	Updating relative weights and policy adjustors	Relative weights will be reviewed and updated at the same time as the DRG grouper is updated, if appropriate. Policy adjustors and age adjustors will be reviewed annually to determine whether they remain appropriate.
3	**DRG Base Price**	
3.1	DRG base price	The DRG base price is adjusted based on Medicare wage areas and California's definition of remote rural hospitals. The statewide and remote rural DRG base prices for year 1 (July 2013) were distributed to hospitals in late January 2013.
3.2	Budget target	The DRG payment method was implemented on a budget-neutral basis by California statute. It is expected the legislative appropriations will be frozen at 2012-13 levels. Future increases will be subject to legislative appropriations.
3.3	Variations in the DRG base price by wage areas	Wage areas: Adopt the Medicare assignment of hospitals to specific wage areas, including reclassifications of hospitals into adjacent wage areas. Wage index: Use the same wage area index values for each hospital as Medicare does. For hospitals where Medicare does not show a specific value, use the wage area corresponding to the hospital's physical location. For out-of-state hospitals, use the Medicare national value of 1.00.
3.4	Variations in the DRG base price by hospital characteristics	DHCS-designated remote rural hospitals will receive a higher DRG base price. Definition: "A rural hospital, at least 15 miles in driving distance from the nearest general acute care hospital that has at least a basic level emergency room." Designated NICU hospital claims will have a higher neonate policy adjustor. Definition: "A designated NICU is a NICU certified by the California Children's Services program for neonatal surgery."
3.5	Documentation, coding and capture adjustment	The payment methodology included an adjustment to the DRG base price in anticipation of improved documentation and coding by hospitals, as follows. • Documentation, coding and capture adjustment is set at 3.5%. • Real casemix change is expected, e.g., 0.5% per year (2009-2013). • A casemix corridor and value will be available to increase or decrease the DRG base price depending on the difference between the expected and reported casemix. • DRG base prices will be adjusted prospectively, if possible. • Advance notice will be provided to hospitals of changes in measured casemix. • Casemix changes will be monitored through claims analysis.
3.6	Transition base prices	Three-year transition to the statewide DRG base price is operationalized by adjusting each hospital-specific DRG base price.

#	Item	Description
4	**Other Factors in Payment**	
4.1	Transfer adjustments	If a patient is transferred to an acute care setting, it may mean that the length of stay at the transferring hospital is lower than the average length of stay. Payment to the transferring hospital is reduced to a per diem based on the DRG as follows. • Acute care transfers: Use the Medicare formula to reduce payment to a per diem. Unlike Medicare, we recommend inclusion of discharge statuses 02, 05, 65 and 66 as discharges that would qualify as an acute care transfer. • Post-acute care transfers: No Medicare-style transfer policy for post-acute care due to the very different patient characteristics of the Medicare and Medi-Cal populations. Payment adjustment only applies to the transferring hospital. The receiving hospital is paid a full DRG payment.
4.2	DRG outlier payment adjustments	DHCS adopted a DRG cost outlier adjustment policy as follows: Cost outlier-high side: A stay qualifies as a cost outlier-high side if the hospital's estimated loss on the stay exceeds a threshold. For high side outliers, the outlier payment would equal 60% of the difference between estimated loss and the threshold, plus 80% of the loss above a second threshold. • Cost outlier threshold 1 = $40,000. Marginal cost factor 1 = 60% • Cost outlier threshold 2 = $125,000. Marginal cost factor 2 = 80% Cost outlier- low side: A stay qualifies as a cost outlier-low side if the hospital's estimated gain on the stay exceeds a threshold. The low-side outlier logic is symmetric to the high-side outlier logic, except that only threshold 1 and marginal cost factor 1 are used.
4.3	Add-on payments functionality	The payment method includes functionality for a hospital-specific add-on payment to be added for each stay. Such add-on payments can be used, for example, in paying for capital, medical education, or quality incentives. There are no plans to use this field initially.
4.4	"Lesser of" paid or billed	Payment cannot exceed charges. If the allowed amount exceeds charges, payment will be reduced to charges. This is consistent with previous policy, which is not impacted by a change in payment method.
4.5	Other health coverage and share of cost	Other healthcare coverage payments and share-of-cost continues to be applied under the new payment method as is currently done.
4.6	Supplemental payments	Supplemental payments are outside the scope of the DRG payment method.
4.7	Separately payable services, supplies and devices	• Continue to use existing CA-MMIS functionality that allows separate payment on an outpatient claim for certain services, supplies and devices during an inpatient stay. • A list of specific HCPCS codes is available for separate outpatient payment regardless of the treating hospital. • All physician services should be billed as professional claims (i.e., CMS-1500, X12N837P).
4.8	Newborn hearing screening	Implementation of DRG payment has no effect on this screening program.
4.9	Negotiated payments	Enable flexibility for DHCS to negotiate payment arrangements for out-of-state services in truly exceptional circumstances.

#	Item	Description
4.10	Pay for quality	• DHCS will continue to comply with minimum federal requirements for health care-acquired conditions and erroneous surgeries (known as provider preventable conditions or PPCs) under DRG payment. • The present-on-admission indicator (POA) values on diagnoses is required on the claim and collected. • 3M™ Hospital-acquired Condition (HAC) Utility V.30 supplied with the APR-DRG grouper is used to identify and remove Medicaid HCAC diagnoses from claims based on the POA. • Erroneous surgeries based on diagnosis codes E8765, E8766, and E8767 are identified for manual reporting and post-payment review by DHCS with potential disallowance of payment. • Functionality was built to allow exceptions to the HCAC pricing logic for a DHCS-defined list of pediatric HCAC categories. • DRGs also offer DHCS opportunities for future pay for quality initiatives, e.g., PPCs, PPRs or state-defined measures.
5	**Treatment Authorization, Coding and Billing**	
5.1	Treatment authorization request	• Continue to require TAR on the medical necessity of the admission, including CCS and GHPP admissions. • Discontinue TAR on the length of stay and on days of care related to induction of labor. • Continue daily TAR on non-obstetric procedures provided to beneficiaries with restricted Medicaid eligibility. • Continue to require TAR on both the admission and the length of stay for administrative days and rehabilitation.
5.2	Late charges and interim claims	Late charges: Disallow claims for late charges (bill type 115). Interim claims: • Accept interim claims for stays with length of stays exceeding 29 days with bill types 112 and 113 and with patient discharge status 30. Payment based on a statewide per diem rate. Claims can be submitted in additional increments of at least 30 days. • When patient is discharged, hospital submits a single admit-through-discharge claim (bill type 111). The claims system calculates the full DRG payment. Any interim payments are recovered in the next check write. • Deny bill type 114.
5.3	Related outpatient services	Continue previous policy to include related outpatient services within the definition of an inpatient stay.
5.4	Administrative days	• Continue to pay administrative days Level 1 under existing policy, requiring a daily TAR and billed using revenue code 169. • Implement a new Level 2 administrative day policy similar to Level 1, except at a higher rate for higher acuity patients. Level 2 revenue codes 190 (sub-acute pediatric), where the age of the beneficiary is less than 21, and 199 (sub-acute adult), where the age of the beneficiary is 21 or greater, are available for payment only to DRG hospitals.

#	Item	Description
5.5	Rehabilitation stays	• A “rehabilitation” stay is identified by the presence of an accommodation revenue code for rehabilitation (e.g., 118, 128, 138, and 158). • For DRG hospitals, payment is based on a hospital-specific per diem amount, adjusted by the hospital-specific wage index, in the same manner as the DRG base price is adjusted. • Per diem rates are established for services provided to adult beneficiaries (age 21 and over), pediatric beneficiaries (under age 21), and a blended rate for DRG hospitals that provided rehab services to adult and pediatric populations. • TAR/SAR for the admission and all days is required.
5.6	Remittance advice	The paper and electronic (X12N 835) remittance advice sent to DRG hospitals include DRG payment information: • Four-digit APR-DRG code. • APR-DRG relative weight (only on the X12N 835). • New remittance advice document (RAD) codes to show a change in DRG assignment due to a HCAC and to interim claim payment activities.
5.7	Billing and eligibility for newborns	• Separate claims for the mother and the newborn(s) are required. Claims that include revenue codes for nursery and for labor and delivery in the same claim will be disallowed. • TAR on the length of stay and induction of labor is removed. • Claims will continue to be submitted under either the baby’s benefits identification card (BIC) or the mother’s card. The baby’s identification number should remain constant throughout the entire hospital stay.
5.8	Per diem and special rates	• Per diem rates are established for interim claims, administrative day level 2, and rehabilitation stays. • The previous payment policy continues for administrative day level 1. • Separately payable services include blood factors and bone marrow procurement.
6	**Implications for Hospitals and DHCS**	
6.1	Frequently asked questions	An FAQ document is available through the Medi-Cal DRG webpage at www.dhcs.ca.gov/provgovpart/Pages/DRG.aspx.
6.2	DRG pricing calculator	The DRG pricing calculator is a spreadsheet tool used for both hospital training and MMIS testing to demonstrate how the pricing logic works. This section includes pricing examples.
6.3	Expected impacts on hospitals	This section summarizes the DRG payment method’s impact on hospital billing, operations and finances.
6.4	Policy documentation	Policy documentation for the new payment method included updates to the California Medicaid State Plan and the provider billing manual. Xerox assisted DHCS in the preparation of policy documentation.
6.5	Policy update and file maintenance tasks	This section summarizes the recommended tasks (periodic reviews, updates and maintenance) essential to the proper functioning of any DRG-based payment method.
6.6	Monitoring payment method integrity	This section provides a suggested approach, reports, and associated tasks to monitor the integrity of the new payment method after implementation.

#	Item	Description
6.7	Implications for growth in hospital cost	Payment by DRG is expected to reduce the growth rate in hospital cost by creating financial rewards for controlling length of stay and cost per day.
7	**Business Requirements for CA-MMIS Changes**	
7.1	Summary of requirements	This section summarizes the business requirements for CA-MMIS changes.
7.2	Reference data system	This section lists the system parameters, system lists, and field edits needed in CA-MMIS.
7.3	Provider master file	This section identifies the new provider master file fields and associated business data validation rules.
7.4	TAR data entry – SURGE and SARS	This section identifies the TAR entry business requirements.
7.5	Inpatient claim data entry	This section identifies the inpatient claim data entry business requirements (e.g., additional diagnosis and procedure codes and occurrence codes).
7.6	Adjudication edits	This section identifies the business requirements for claim data edits (e.g., validity edits, HCAC and erroneous surgery edits, pricing parameter edits, DRG grouping edits, and other edits).
7.7	Claims pricing	This section identifies the claims pricing business requirements.
7.8	Processing final claim after interim claims	This section identifies the business requirements for voiding interim claims when the final claim for a long hospital stay is adjudicated.
7.9	Reporting DRG pricing information	This section identifies the business rules for changes to the remittance advice, DRG pricing reports, and data warehouse extracts.
7.10	Database changes	This section identifies new files and fields that will need to be added to the CA-MMIS database.
7.11	Data configuration	This section identifies the data configuration tasks to be performed in testing and production environments prior to implementation.
7.12	Data retention	This section identifies the data retention and disaster recovery business requirements.
7.13	Other adjustments	This section identifies the business requirements for certain payment adjustments, such as timely filing and lesser of paid or billed.
7.14	Payment policy flowchart	This section describes the DRG pricing method in the form of a flowchart.

1 Scope of Payment Method

1.1 Goals of the Project

In implementing a new payment method for hospital inpatient services provided to Medi-Cal beneficiaries based on diagnosis related groups (DRGs), the California Department of Health Care Services' (DHCS) goals are to:

- Design and implement the provisions described in §14105.28 that were added to the Welfare and Institutions Code by the 2009-2010 Legislature under Senate Bill 853[1]
- Replace the previous method of negotiated rates with a method based on All Patient Refined Diagnosis Related Groups (APR-DRGs)
- Encourage access to care, reward efficiency, improve transparency, and improve fairness by paying similarly across hospitals for similar care
- Facilitate implementation of State and federal provisions related to provider preventable conditions, and
- Support provider compliance with State and federal requirements

1.2 Time Horizon

Based on experience in California, other states and at the federal level, the new payment method can be expected to be in place for 10, 20 or more years. It is therefore essential that it be flexible enough to accommodate a wide range of changes in future payment policy. We cannot know what these will be, but we can make educated guesses based on experience in California and elsewhere.

At the same time, it is important to keep the design of the payment method as simple as possible. One reason is that there is too much complexity already in healthcare payment, so any added complexity should result in a clear benefit. A second reason is that added complexity increases costs for both hospitals and the Medi-Cal claims processing system, which is known as the California Medicaid Management Information System (CA-MMIS).

One consequence of designing a payment method expected to be in place for many years is that the structure itself should not be contentious, precisely because it should accommodate a wide range of payment policy choices. For example, we designed a structure that accommodates both a single default DRG base price as well as hospital-

specific base prices. That means that the question of whether different DRG base prices should be paid to different hospitals can be supported, based on DHCS's future needs. Another example is that we included functionality to allow hospital-specific "add-on" payments on each claim that are separate from the DRG payment. This field can be used to make payments for medical education, capital, pay-for-quality incentives, or for other purposes. If such add-on payments are needed, then the functionality is there. If add-on payments are not needed, then the data field is simply filled with zeroes. There are no plans to use this field initially.

1.3 Principles in Recommending Payment Policy

As a guide to making payment policy recommendations, we use the following principles. Although trade-offs are inevitable, we find it useful to explicitly list the principles. The list includes a few comments on how these guiding principles can affect payment by DRG.

- ***Access.*** In practice, this means paying more for patients who need more care and paying less for patients who need less care. If payment is too low for acutely ill patients, then hospitals are penalized for treating those patients and will seek to avoid them, especially over time as decisions are made about capital spending and what services to offer. And if payment is too high for low-acuity patients, then these patients are inappropriately profitable for hospitals. Issues of access are particularly pertinent when Medicaid represents a large percentage of total volume for a particular category of care, such as neonatology, pediatrics, and obstetrics.

  DRG payment is generally viewed as facilitating access to care because payment is appropriate to the illness, burden or severity of the patient's condition, resulting in payment that is higher for higher-acuity patients. The DRG algorithm must, however, be appropriate for the patient population, as we will see in Section 2.2. The access criterion also helps explain why DRG payment methods include outlier payment provisions for patients who are extraordinarily and unpredictably expensive.

- ***Efficiency.*** The question here is whether a payment method specifically and predictably rewards hospitals that increase efficiency, other things equal. The classic example is the Medicare implementation of DRGs in 1983, which prompted significant reductions in length of stay and in the growth rate of cost per day.[2] When designing particular features of a DRG payment method, it is therefore important to minimize reliance on hospital-specific costs or charges. The outlier payment feature is a good example of how the access and efficiency criteria must be balanced to accomplish objectives. See Section 4.2.

- ***Transparency.*** Recent years have seen increasing interest among hospitals, patients, and government in increasing transparency in charges and payments. DRGs enable this transparency by defining the "product of a hospital," that is, by organizing the immense complexity of modern inpatient care into a manageable number of groups that are similar both clinically and financially. DRGs enable "clinical conversations" about practice patterns within hospital walls between clinicians and financial managers. Medi-Cal use of DRGs would have the most

impact in those areas where Medicaid is a major payer, such as obstetric and pediatric care.

In California, DRGs promote transparency in that the previous method of confidential hospital-specific rates is replaced by a system of published rates by DRG.

- ***Fairness.*** Fairness has two primary meanings. First, different hospitals would receive similar payment for similar care, which is widely considered a major benefit of DRG payment. Second, payment rates would be adjusted for factors outside the hospital's control. Medicare, for example, includes wage area adjustments in an effort to be fair to hospitals in high wage areas. In practice and as Medicare's experience has demonstrated it can be quite contentious to precisely define "factors outside the hospital's control."

- ***Administrative ease.*** Implementing a new payment method is a major initiative for both hospitals and a Medicaid program. That said, well designed and well implemented methods are easier for everyone than the alternative. For hospitals, the major potential impacts are on medical coding, billing, and information systems. In addition, payment methodology may also influence the coordination of care from admission to discharge. For DHCS, the major impact would be on the CA-MMIS. In all areas, simplicity is paramount. Complexity should be added to a payment method only if it results in substantial improvements to one of the other criteria. It also helps if existing business processes within both the hospitals and the state agency continue to be used to the fullest extent possible.

- ***Data integrity.*** All payment methods depend on incoming data, and all data have issues. Ideally, data used to calculate payment should be specific, verifiable, relevant and consistently defined. DRG payment relies heavily on diagnosis and procedure coding and to a lesser extent on hospital-specific charges and costs. Complete documentation of diagnosis and procedure codes is essential to accurate DRG assignment and, therefore, payment.

- ***Quality.*** Very few payment methods specifically reward quality care; indeed, many methods, including DRGs, can reward poor quality if poor quality results in more care being provided. Although pay-for-quality initiatives are not the focus of this project, the design of the payment method should facilitate quality measurement and incentives where possible. In particular, any initiative to measure and reward quality must include careful adjustment for casemix differences among patients and hospitals. In addition, DRG payment will enable compliance with new federal requirements to adjust payments for certain provider preventable conditions.

1.4 Key Dates

Project milestone dates in Table 1.4.1 were originally set on the assumption of a July 1, 2012, implementation date, which has since been revised to July 1, 2013. Dates may be changed through written correspondence between the project managers.

Table 1.4.1

Project Milestone Dates

Project Milestone	Date	Date Approved
Receive sample inpatient hospital dataset	4/1/2011	
Start work	4/8/2011	
Project kick-off meetings	Week of 4/25/11	
Delivery of first draft of Policy Design Document (PDD)	5/17/2011	6/22/2011
Delivery of second draft of PDD	6/14/2011	6/22/2011
Receive full calendar year inpatient hospital dataset	7/14/2011	
Delivery of Analytical Dataset Summary-draft	8/18/2011	9/23/2011
Delivery of third draft of PDD	8/26/2011	8/30/2011
Delivery of fourth draft of PDD	9/23/2011	9/27/2011
Delivery of Analytical Dataset Summary	10/20/2011	12/23/2011
Delivery of fifth draft of PDD	10/20/2011	10/27/2011
Delivery of sixth draft of PDD	12/6/2011	12/23/2011
Delivery of seventh draft of PDD	1/10/2012	1/26/2012
Delivery of final draft of PDD	2/23/2012	
Delivery of final PDD	3/13/2012	3/20/2012
Delivery of policy documentation: SPA and Provider Manual	5/18/2012 & 10/1/2012	10/31/2012
Delivery of policy-oriented test scenarios	8/12/2012	9/5/2012
Delivery of draft for hospital-specific DRG base prices	1/30/2013	1/30/2013
Contractor provides hospital-specific payment simulations to at least 100 hospitals	1/31/2013	1/31/2013
DHCS accepts delivery to a minimum of 50 hospitals	1/31/2013	1/31/2013
Delivery of new FAQ version	1/24/2013	2/28/2013
New payment method effective for private hospitals	7/1/2013	
Delivery of PDD with revisions resulting from implementation work	9/26/2013	
New payment method for NDPHs effective	1/1/2014	

1.5 Previous Payment Method

Medi-Cal's previous payment method for hospital inpatient services was based generally on two distinct methods.

- ***Selective Provider Contracting Program (SPCP) or contract hospital rates***. This payment method was established legislatively in 1982 and operated under a federal waiver.[3] The California Medical Assistance Commission (CMAC) contracted and negotiated per diem rates with hospitals under the Medi-Cal SPCP. Hospitals may have had one or more rates depending on the services offered and the contract terms. The hospital contracted and supplemental rates were confidential for a period of four years.[4]

- ***Non-contract hospital rates***. Non-contract hospitals were reimbursed based on Medi-Cal allowable, audited costs. Hospitals were paid interim rates using a cost-to-charge ratio that was based on the most recently accepted cost report as reported. A cost settlement process reconciled the difference between interim payments and the costs of providing services. DHCS had a three-year period to complete the audit process.[5]

Table 1.5.1

Previous Payment Method

	Nbr of Hosp	Stays	Days	Charges	Est. Cost	Baseline Payments	Casemix	Cost / Chg	Pay / Cost	Avg LOS	Avg Chg	Avg Cost	Avg Pay
Contract hospitals	178	415,416	1,811,040	$16,427,965,128	$3,690,807,040	$2,522,841,240	0.72	22%	68%	4.4	$39,546	$8,885	$6,073
Non-contract hospitals	173	120,903	401,327	$3,490,630,091	$923,252,468	$923,252,468	0.62	27%	100%	3.3	$28,871	$7,636	$7,636
Out-of-state hospitals	254	2,151	11,304	$78,656,721	$17,304,479	$17,304,479	0.66	22%	100%	5.3	$36,568	$8,045	$8,045
Total	**605**	**538,470**	**2,223,671**	**$19,997,251,939**	**$4,631,363,987**	**$3,463,398,187**	**0.70**	**23%**	**75%**	**4.1**	**$37,137**	**$8,601**	**$6,432**

Notes:

1. Data are the responsibility of Xerox and should not be attributed to any California state agency.
2. This table is based on the analytical baseline dataset for CY 2009. Other tables in this document are based on the simulation baseline dataset. See Section 1.13 for details on the other refinements for purposes of payment simulation and ratesetting.
3. Payment figures exclude supplemental payments.
4. Data exclude designated public hospitals and include non-designated public hospitals (which were excluded from the dataset used to set the DRG base prices for July 1, 2013). NDPHs will transition to DRG payment starting with admissions beginning on January 1, 2014.
5. Some hospitals are counted under both contract and non-contract categories because their status changed during calendar year 2009.
6. Casemix is measured using national relative weights for APR-DRG V.29.

In addition, rates for 21 designated public hospitals are established by DHCS based on the certified public expenditures process. Designated hospitals are outside the scope of the new payment method.

We note that DHCS identified 46 non-designated public hospitals that were excluded from the dataset used to set the DRG base prices for July 1, 2013. For purposes of this analysis, however, we used the analytical dataset which includes designated and non-designated public hospitals, to capture a more complete picture of the previous payment method. (See Section 1.13 for details on the other refinements for purposes of payment simulation and ratesetting.)

Table 1.5.1 shows that the SPCP payment method accounted for 77 percent of total Medi-Cal stays and 73 percent of payments made to general acute care hospitals in CY 2009, based on the separate report *Summary of the Analytical Dataset*, December 22, 2011.

1.6 Affected Providers

Included in the scope of the new payment method are general acute care hospitals, including hospitals designated by Medicare as critical access hospitals. These hospitals include in-state and out-of-state facilities that submit fee-for-service claims for inpatient hospital services provided to Medi-Cal beneficiaries.

The following hospitals are outside the scope of the DRG payment method:

- Psychiatric hospitals and psychiatric units at general hospitals
- Rehabilitation hospitals and rehabilitation units at general hospitals, including alcohol and drug rehabilitation hospitals
- Designated public hospitals
- Inpatient hospice

General acute care hospitals are identified as provider types 16 and 60 and include designated public hospitals (DPHs). Because designated public hospitals are outside the scope of DRG payment, they have been excluded from the analytical dataset used to develop the DRG method. In addition, Indian Health Services hospitals (provider type 75) are excluded from the DRG payment method. Non-designated public hospitals will transition to DRG payment starting with admissions beginning on January 1, 2014.

General acute care hospitals as defined in the claims processing system also include hospitals that self-identify as rehabilitation hospitals as well as rehabilitation units within general hospitals. See Section 5.5 regarding payment for rehabilitation stays, which were excluded from the dataset used in setting DRG base prices for July 1, 2013.

1.7 Affected Claims

Within general acute care hospitals, the DRG payment method will apply to hospital inpatient claims submitted on the UB-04 claim form and ANSI ASC X12N 837 institutional transaction.

- ***Included:*** All inpatient claims in general acute care hospitals are in the scope of the project
- ***Excluded:*** Psychiatric stays, rehabilitation stays (rehabilitation stays at general acute care facilities and at specialty rehabilitation facilities and identified by rehabilitation revenue codes used in the previous payment method), long-term care swing-bed stays, managed care stays, and administrative days

In general, psychiatric care and chemical dependency are outside the scope of the DRG project, because these services are covered and paid by the counties. Nevertheless, there were a small number of mental health and chemical dependency claims in the 2009 simulation baseline dataset paid by DHCS that were not a county responsibility and did not meet any other DRG exclusion criteria. These few stays will be paid by DRG. See Table 1.7.1.

While rehabilitation stays also represent a small percentage of total claims in the dataset, special consideration for these claims was warranted. Please see Section 5.5 for the definition of rehabilitation stays going forward and excluded from the DRG payment method.

Table 1.7.1 shows total Medi-Cal stays and payments for rehabilitation stays and mental health and chemical dependency stays made to general acute care hospitals in CY 2009, based on the simulation baseline dataset.

Table 1.7.1

Summary of Rehabilitation and Mental Health/Chemical Dependency Stays

Hospitals	Stays	Days	Charges	Est Cost	Baseline Payment	Cost / Chg	Pay / Cost	Avg LOS	Avg Chg	Avg Cost	Avg Pay
Physical Rehabilitation											
California hospitals	1,231	31,375	$139,040,715	$32,501,197	$38,017,051	23%	117%	25.5	$112,949	$26,402	$30,883
Out-of-state hospitals	9	70	$257,469	$56,643	$56,643	22%	100%	7.8	$28,608	$6,294	$6,294
Subtotal	**1,240**	**31,445**	**$139,298,184**	**$32,557,840**	**$38,073,694**	**23%**	**117%**	**25.4**	**$112,337**	**$26,256**	**$30,705**
Mental Health/Chemical Dependency											
California hospitals	837	2,600	$25,266,984	$5,988,514	$5,016,349	24%	84%	3.1	$30,188	$7,155	$5,993
Out-of-state hospitals	31	248	$687,530	$151,257	$151,257	22%	100%	8.0	$22,178	$4,879	$4,879
Subtotal	**868**	**2,848**	**$25,954,514**	**$6,139,771**	**$5,167,606**	**24%**	**84%**	**3.3**	**$29,902**	**$7,073**	**$5,953**
Total Stays	2,108	34,293	$165,252,698	$38,697,611	$43,241,300	23%	112%	16.3	$78,393	$18,358	$20,513
Total Medi-Cal Stays	446,715	1,732,336	$14,508,005,748	$3,422,225,747	$2,632,095,148	24%	77%	3.9	$32,477	$7,661	$5,892
% of Total Medi-Cal Stays	**0.5%**	**2.0%**	**1.1%**	**1.1%**	**1.6%**						

Notes:

1. For the purpose of analysis and design of the payment method, rehab stays were defined broadly by (A) all claims that grouped to APR-DRG 850 and 860, or (B) had a principal diagnosis code of V57.0, V57.1, V57.21, V57.22, V57.3, V57.4, V57.81, or (C) had diagnosis codes V57.89 or V57.9 or had procedure codes 93.85 or 93.89 anywhere on the claim. See Section 5.5 for the definition of rehabilitation stays to be used going forward and excluded from the DRG payment method.
2. Mental health/chemical dependency stays were defined by all claims that grouped to APR-DRGs 750-760 or 770-776.
3. This table is based on the simulation baseline dataset. See Section 1.13 for a description of the simulation baseline dataset and other refinements for purposes of ratesetting.
4. Data exclude designated public hospitals and include non-designated public hospitals (which were excluded from the dataset used to set the DRG base prices for July 1, 2013). NDPHs will transition to DRG payment starting with admissions beginning on January 1, 2014.

1.8 Beneficiaries with Dual Eligibility

Many beneficiaries are dually eligible for Medicare and Medi-Cal, a situation sometimes referred to as "Medi-Medi." In general, Medicare is the primary payer for inpatient hospital care and Medi-Cal is the secondary payer. For these Medicare crossover claims, Medi-Cal policy is to pay the lower of two amounts.[6]

- Amount 1 = The sum of the Medicare deductible, Medicare blood deductible, and Medicare coinsurance
- Amount 2 = The amount that Medi-Cal would have paid if Medi-Cal had been the primary payer, minus the amount already paid by Medicare

This policy, known as comparative pricing in California, is followed by many states.[7]

Medicare crossover claims will not be part of the DRG logic, including HCACs. Crossover claims will not be grouped for analysis purposes.

In 2009, Medi-Cal also paid for 29,755 stays where the patient had dual eligibility but Medicare was not the primary payer. This can occur because the patient did not have Medicare Part A coverage or because the Medicare inpatient hospital benefit had been exhausted. Total charges were $2.08 billion, estimated hospital cost $444.2 million, and Medi-Cal payment $292.1 million. Because Medi-Cal was the primary payer, these stays are included within the scope of the DRG payment method. These "No Part A" stays would continue to be priced and paid just like any other Medi-Cal claim.

1.9 Out of State Claims

Just 0.4 percent of stays are in out-of-state hospitals, accounting for $17.3 million in payments, based on the analytical baseline dataset for CY 2009 (see Table 1.5.1). This percentage is much lower than in most other states, reflecting both the extremely wide range of services available within California, as well as the relative sparseness of the population along the borders with Arizona, Nevada and Oregon. Out-of-state hospitals are included in the DRG-based payment in the same way as California hospitals. Throughout this project all out-of-state hospitals will be considered as a single group, e.g., when data are presented by Medicare wage area or hospital bed size.

Even in a state the size of California, situations occur in which only an out-of-state hospital can provide a specific type of care. In these situations, we would expect payment to be by DRG, just as it would for any other stay. However, we recommended that the State Plan include authority for DHCS to negotiate payment to an out-of-state hospital in extremely rare situations where complex medical services and surgical procedures otherwise would be unavailable. See Section 4.9.

1.10 Hospice

Inpatient hospice requires the provider type code “39” (hospice) for billing. Since the DRG project is limited to acute care providers (16 and 60), inpatient hospice will not be affected.

1.11 Affected Programs

At a high level, the new hospital inpatient payment method includes claims for services provided to Medicaid eligible beneficiaries enrolled in Medi-Cal fee-for-service programs. In some states, California included, Medicaid rates and fees are used to pay for similar services provided through other state programs.

Claims for beneficiaries who have coverage under the California Children’s Services (CCS) or Genetically Handicapped Person Program (GHPP) will be priced using the new DRG method. This is true for all CCS or GHPP clients regardless of whether they also have Medi-Cal coverage.

Claims for Healthy Families patients are considered managed care and not paid by DRGs. However, claims for patients covered by both Healthy Families and CCS will be paid by DRG for the CCS portion of the stay.

The new Medi-Cal payment method also applies to these two programs.

- ***California Children’s Services (CCS).*** This program, a partnership between local county health departments and DHCS Children’s Medical Services, provides healthcare services to children from birth up to 21 years of age with CCS-eligible medical conditions[8]. Most CCS beneficiaries have Medi-Cal eligibility as well and are therefore included in the dataset for this project. Other beneficiaries, who are referred to as “CCS Only,” do not have Medi-Cal eligibility.

Table 1.11.1

Summary of Affected Programs

Program	Stays	Charges	Payment	Avg Charges	Avg Payment
CCS	1,073	$54,263,371	$12,462,962	$50,572	$11,615
GHPP	145	$15,538,844	$3,256,292	$107,164	$22,457
Total	**1,218**	**$69,802,215**	**$15,719,254**	**$57,309**	**$12,906**

Notes:

1. Data exclude designated public hospitals and include non-designated public hospitals (which were excluded from the dataset used to set the DRG base prices for July 1, 2013). NDPHs will transition to DRG payment starting with admissions beginning on January 1, 2014.
2. Claim counts include adjustments, voids and interim claims.
3. Stays represent CCS-only and GHPP-only claims.

- ***Genetically Handicapped Persons Program (GHPP).***This program provides healthcare services for adults (21 years of age or older) with specified genetic diseases. Services may include, but are not limited to hospital, physician, drugs, laboratory, medical supplies, durable medical equipment, and other Medi-Cal covered services. A service authorization form (SAR), is required.[9]

To assist in understanding the impact of the new APR-DRG payment method on these programs, we obtained a separate dataset of CCS-only and GHPP-only claims. Table 1.11.1 shows claims from calendar year 2009, excluding claims from designated public hospitals. For the two programs combined, excluding beneficiaries who also had Medi-Cal eligibility, there were 1,218 claims with $15.7 million in payments.

1.12 Medi-Cal Managed Care

Although this project applies to fee-for-service payment, there are two areas of potential impact on Medi-Cal managed care plans.

- ***Out-of-network emergency care and post-stabilization.*** In general, managed care beneficiaries nationwide are treated only at hospitals that belong to their plan's provider network. When Medicaid beneficiaries receive emergency care at an out-of-network hospital, federal law says that, in general, the hospital must accept payment from the plan that is no higher than what fee-for-service payment would have been.[10] In California, fee-for-service payment levels have been confidential under the Selective Provider Contracting Program. Therefore the Medicaid program has periodically calculated an average per diem payment amount known as the "Rogers Rate." The plans have used this rate to pay out-of-network hospitals for emergency care. Under DRG payment, payment methods and rates will be public knowledge, so calculation and payment of the Rogers Rate will no longer be needed. Instead, we expect that the plans will pay hospitals based on the fee-for-service DRG payment method. In understanding the details of the payment method, plans and hospitals will be able to turn to the DRG pricing calculator spreadsheet, the "frequently asked questions" document, the state plan amendment, the fee-for-service hospital provider manual, and this Policy Design Document (PDD).

  DRGs went into effect for Medi-Cal managed care at the same time as FFS, on July 1, 2013. Medi-Cal managed care plans (MCPs) are required to use DRGs for emergency and post-stabilization services at all out-of-network hospitals, including public and out-of-state hospitals. To the extent acute rehabilitation services are provided at out-of-network hospitals on an emergency or post-stabilization basis, MCPs may not pay more than the statewide per diem rate that DHCS has developed.[11]

- ***DRG payment as a model.*** Medi-Cal managed care plans are free to set their own payment methods for use with hospitals. Typical options include per diem models, various forms of case rates (including DRGs), percentages of charges, and even different methods for different services within the same contract. The new fee-for-service DRG payment method will give plans another option that they may choose to adopt. Although this may well be appropriate, we caution the managed care plans that the DRG method has been designed only with the fee-for-service population in mind. Extension of its use to the managed care population would require a separate analysis of appropriateness. With that

caveat, however, we note that the DRG method has been designed to cover all medical conditions and to be flexible enough to accommodate a wide range of payment policy options.

In developing the new DRG payment policies in this document, DHCS has also taken into account the significant transition to managed care now taking place in the Medi-Cal program. Although we used 2009 claims data as the basis for our analysis, we also simulated the impact of the managed care transition as if it had already occurred by 2009. See Section 1.13, of the *Summary of the Analytical Dataset*, December 2011.

1.13 Analytical and Simulation Datasets and Ratesetting

For purposes of developing the DRG payment method, we created two datasets based on paid Medi-Cal claims for inpatient care in CY 2009. The analytical and simulation datasets formed the basis for policy and payment decisions during the design phase. A separate process was necessary for setting the DRG base prices for implementation on July 1, 2013.

- ***Analytical dataset.*** The analytical dataset is intended to reflect all complete stays for Medi-Cal fee-for-service inpatient claims in CY 2009. The most notable exclusions were stays at designated public hospitals and claims for incomplete stays. Designated public hospitals are outside the scope of DRG payment. Claims for incomplete stays (i.e., where a claim was received for only part of a patient's stay) were excluded because payment for DRG is for a complete stay. The 2009 payments for incomplete stays, however, are factored into the budget projections for SFY 2013-14.

- ***Simulation baseline dataset.*** Medi-Cal is transitioning some fee-for-service beneficiaries to managed care. The DRG payment method being implemented July 1, 2013, therefore will be applied to a population that is smaller than, and different from, the analytical dataset. We therefore modeled the impact of the managed care transition as if it had been completed by January 1, 2009. Throughout this policy design document, when we refer to claims data we usually refer to the simulation baseline dataset, unless otherwise noted.

- ***Ratesetting process.*** A ratesetting dataset was prepared at the end of January 2013 for the purpose of establishing DRG base prices that are effective July 1, 2013. The simulation dataset was further refined into the ratesetting dataset in order to implement the policy decisions described in this updated Policy Design Document.

Table 1.13.1 shows that the analytical dataset comprised 538,470 stays with $3.5 billion in payments in CY 2009. After exclusion of stays that were modeled as moving to managed care, the simulation dataset comprised 446,715 stays with $2.6 billion in payment. In setting rates for July 1, 2013 for all hospitals except non-designated public hospitals, a subset comprising 406,164 stays was used. This subset excluded NDPHs, out-of-state hospitals, and one hospital with anomalous data[12]. (NDPHs will transition to DRG payment starting with admissions beginning on January 1, 2014).

Documentation of the many steps taken to create the analytical dataset and the simulation baseline dataset is contained in a separate report to DHCS, *Medi-Cal DRG Project: Summary of Analytical Dataset*, December 2011. The report includes numerous tables showing various views of the two datasets. The methodology and details behind the calculation of statewide base prices and the hospital-specific base prices that are effective July 1, 2013, is documented on a separate report to DHCS, *Medi-Cal DRG Project: Hospital-Specific Base Prices for FY 2013-14.*

All use of the CY 2009 datasets is subject to strict oversight by DHCS, because the datasets contain protected health information about Medi-Cal beneficiaries as well as on hospital-specific payment levels that were confidential under the Selective Provider Contracting Program until July 1, 2013, the DRG implementation date.

Table 1.13.1

Overview of Analytical Dataset and Simulation Dataset

Description	Stays	Days	Charges	Est. Cost	Baseline Paymt	Casemix	Cost / Chg	Pay / Cost	ALOS	Avg Chg	Avg Cost	Avg Pay
Received dataset	**659,616**	**2,826,260**	**$25,664,273,324**	**$5,980,149,959**	**$4,444,652,164**	**0.72**	**23%**	**74%**	**4**	**$38,908**	**$9,066**	**$6,738**
Exclude the following:												
Designated public hospital	118,862	587,469	$5,465,400,391	$1,298,988,467	$947,601,428	0.83	24%	73%	5	$45,981	$10,929	$7,972
Incomplete stay	1,111	-	$191,397,840	$47,143,901	$31,317,444	1.32	25%	66%	0	$172,275	$42,434	$28,189
Submitted charge & payment = 0	855	4,207	$0	$0	$0	1.00			5	$0	$0	$0
Claim for admin days only	186	-	$2,960,841	$657,762	$527,874	0.94	22%	80%	0	$15,918	$3,536	$2,838
DRG grouping error	66	944	$5,753,910	$1,496,838	$1,426,169	(1.0)	26%	95%	14	$87,180	$22,679	$21,609
Medicaid is secondary payer	31	115	$33,108	$7,402	$4,072	0.86	22%	55%	4	$1,068	$239	$131
Charges per day less than $100	28	9,820	$184,229	$54,702	$48,898	2.10	30%	89%	351	$6,580	$1,954	$1,746
Chained	7	34	$1,291,065	$436,899	$328,092	1.82	34%	75%	5	$184,438	$62,414	$46,870
Analytical dataset	**538,470**	**2,223,671**	**$19,997,251,939**	**$4,631,363,987**	**$3,463,398,187**	**0.70**	**23%**	**75%**	**4**	**$37,137**	**$8,601**	**$6,432**
Exclude the following:												
Managed care transition	91,755	491,335	$5,489,246,191	$1,209,138,240	$831,303,039	1.11	22%	69%	5	$59,825	$13,178	$9,060
Simulation baseline dataset	**446,715**	**1,732,336**	**$14,508,005,748**	**$3,422,225,747**	**$2,632,095,148**	**0.61**	**24%**	**77%**	**4**	**$32,477**	**$7,661**	**$5,892**
By Selective Provider Contracting Program Status												
Contract hospitals	342,488	1,404,235	$11,855,518,733	$2,713,182,457	$1,923,051,858	0.63	23%	71%	4	$34,616	$7,922	$5,615
Non-contract hospitals	102,707	320,019	$2,599,446,740	$697,374,429	$697,374,429	0.55	27%	100%	3	$25,309	$6,790	$6,790
Out-of-state hospitals	1,520	8,082	$53,040,275	$11,668,861	$11,668,861	0.63	22%	100%	5	$34,895	$7,677	$7,677
Total	**446,715**	**1,732,336**	**$14,508,005,748**	**$3,422,225,747**	**$2,632,095,148**	**0.61**	**24%**	**77%**	**4**	**$32,477**	**$7,661**	**$5,892**

Notes:

1. Data are the responsibility of Xerox and should not be attributed to any California state agency.
2. Payment figures exclude supplemental payments. Casemix is measured using national relative weights for APR-DRG V.29.
3. The received dataset excluded $384 million of payment for claims with a first date of service in 2009 but no discharge date in 2009 or 2010. We call these situations incomplete stays because the claim did not represent a complete stay. See *Summary of Analytical Dataset* Section 2.1.2. Under the new method, these claims would be paid entire as complete stays.
4. The simulation of the managed care transition shown here was done for purposes of the DRG project and may differ from separate simulations done by DHCS for other purposes. See *Summary of Analytical Dataset*, Section 2.12, regarding the purpose and method for the managed care transition data.
5. Data include non-designated public hospitals, which were excluded from the dataset used in setting DRG base prices for July 1, 2013. NDPHs, however, will transition to DRG payment starting with admissions beginning on January 1, 2014.

2 Casemix Measurement and Relative Weights

2.1 Overview of DRG Payment Calculations

Box 2.1.1 Payment Method Features that Enable Policy Flexibility

- APR-DRG grouper covers all inpatient conditions
- Policy adjustors allow explicit customization of relative weights
- Age adjustor allows adjustment to payment based on patient age
- DRG base price may be statewide or hospital-specific
- Add-on payment field enables hospital-specific payments that are separate from DRG payment

DRG payment methods, like other prospective payment systems, can be summed up by the mnemonic "groups, weights, rates, and rules."

- ***Groups.*** The group, or DRG, is the unit of payment assigned, so that each group contains stays that are similar both clinically and in terms of typical hospital resource use.
- ***Weights.*** Each group has a relative weight, set to reflect how different DRGs relate to each other in terms of typical hospital resource use.
- ***Rates.*** Relative weights are converted into rates by applying a dollar-denominated DRG base price, which can be the same for all hospitals or can vary by hospital.
- ***Rules.*** Lastly, the payment method includes "rules," such as how payment is adjusted when a patient is transferred between hospitals.

Section 2.2 is the principal section on "groups," followed by Section 2.5 on "weights," Section 3.1 on "rates" and much of Section 4 on "rules" for specific situations. In this Section 2.1, we provide an overview of the formulas that are typically used in calculating

payment. The structure of the payment method has to be flexible enough to accommodate policy changes over the next 10 years to 20 years.

Chart 2.1.1 shows six stays at two hospitals. The examples are generic and not specific to any particular hospital. In general, the relative weight is calculated from an outside dataset; the values are not a policy choice. A payer can then choose to apply “policy adjustors” or “age adjustors” to increase or decrease the relative weight. Age adjustors are applied to specific DRGs based on the care category. In the example, a policy adjustor of 1.75 is applied to neonate DRGs, making payment 75 percent higher than it otherwise would have been. Similarly, an age adjustor of 1.25 is applied to asthma DRGs, making payment 25 percent higher for patients below a specific age.

The relative weight used for payment is the product of the casemix relative weight, the policy adjustor and the age adjustor.

The payment relative weight is then multiplied by the DRG base price to calculate the DRG base payment. In all examples, Hospital 1 has a DRG base price of $7,200 and Hospital 2 has a DRG base price of $8,022.

Chart 2.1.1
Typical Mechanics of DRG Payment

Set by payer to hit budget target, can be statewide base-price or hospital specific

Calculated from dataset

Based on clinical data

DRG	Hospital	Casemix Relative Weight	Policy Adjustor	Age Adjustor	Payment Relative Weight	DRG Base Price	DRG Base Payment
194-1 Heart Failure	Hospital 1	0.4968	1.00	1.00	0.4968	$7,200	$3,577
194-2 Heart Failure	Hospital 2	0.6278	1.00	1.00	0.6278	$8,022	$5,036
633-1 Neonate > 2000 G	Hospital 1	0.2329	1.75	1.00	0.4076	$7,200	$2,935
614-2 Neonate < 2000 G	Hospital 2	2.5407	1.75	1.00	4.4462	$8,022	$35,667
141-1 Asthma	Hospital 1	0.3506	1.00	1.25	0.4383	$7,200	$3,155
141-2 Asthma	Hospital 2	0.4946	1.00	1.25	0.6183	$8,022	$4,960

Set by payer

Equals relative weight x policy adjustor or age adjustor

Equals base price x payment weight

Example is for illustration purposes only

Chart 2.1.2 puts the calculation of the DRG base payment into broader context. The DRG base payment is calculated in the top left-hand box, while a DRG cost outlier payment is calculated in the top right-hand box.

The DRG base payment plus the DRG outlier payment equals the DRG payment. (Note the distinction between “DRG base payment” and “DRG payment.”) The DRG payment plus unrelated “add-on” payments equal the allowed amount (sometimes confusingly referred to as the allowed charge). This represents the amount “allowed” by a payer as payment for the service provided. If the patient or a third party is liable for some part of payment, then the patient’s other health coverage or share of cost amounts are subtracted from the allowed amount to yield the actual Medicaid reimbursement.

Throughout this document, when we refer to “payment” we are referring to the allowed amount since that is the payment rate set by a payer. See Section 4.5 regarding the difference between the allowed amount and the reimbursement.

Chart 2.1.2

Most Important Calculation Formulas in a DRG Payment Method

1. Casemix relative weight x policy adjustor x age adjustor = payment relative weight
2. Statewide DRG base price x hospital adjustor = DRG base price
3. Payment relative weight x DRG base price = DRG base payment

4. (Cov charge x CCR) - DRG base payment = estimated hospital cost
5. If estimated cost > threshold, then loss
6. If estimated cost < threshold, then gain
7. (Estimated loss or gain - cost outlier threshold) x marginal cost factor = DRG outlier payment

7. DRG base payment + DRG outlier payment = DRG payment

8. DRG payment + add-on amount = allowed amount

9. Allowed amount - Other health coverage - other cost-sharing = share-of-cost = reimbursement

CCR = cost-to-charge ratio, typically specific to inpatient care at each hospital
Formulas are typical but can be modified for a state's specific purposes
Other typical formulas include adjustments for transfers, partial eligibility and health care-acquired conditions

2.2 Casemix Measurement

The heart of a DRG payment method is the DRG grouping algorithm itself. DRGs define the "product of a hospital," so an appropriate DRG grouper must do a good job categorizing the incredible range of inpatient activities into a tractable number of groups, each of which includes patients similar both clinically and in terms of hospital resources required for their care. To take an extreme example, categorizing all newborns into a single DRG would obviously be inappropriate both clinically and in terms of hospital resources. When DRGs are used for payment, inaccuracies in the DRG algorithm may not have immediate impacts, but they can have major impacts over time. For newborns, the impact would make neonatal intensive care units financially disastrous for hospitals, with subsequent impacts on access to care. As this example suggests, it also matters what share of the market a DRG payer has. For Medi-Cal, the DRG grouper must be particularly accurate for newborns, pediatrics and obstetrics. If, for the sake of argument, it is less accurate for cardiac catheterization, then the implications are less serious because the financial viability of catheterization labs depends on Medicare rates. For the Medicare DRG grouper, on the other hand, accuracy in measuring obstetric and pediatric care is immaterial and accuracy in measuring adult conditions is paramount. A central reason why Medicare moved to a new grouper algorithm in 2007, for example, was to improve accuracy in measuring complex adult conditions.

As shown in Table 2.2.1, there are eight distinct DRG algorithms available. We recommended the use of All Patient Refined Diagnosis Related Groups (APR-DRGs), for three reasons.

1. Applicability of APR-DRGs to Medicaid
2. Adoption of APR-DRGs by Medicaid and other payers
3. Applicability to paying for quality

Table 2.2.1

Comparison of DRG Algorithms

Algorithm	Developer	All Patient Structure	All Patient Weights	Marketed for Medicaid	Medicaid Payer Use	Other Payer Use	Use for Analysis	Use to Measure Quality
CMS-DRGs	3M for CMS	No	No	No	**Yes**	**Yes**	**Yes**	No
MS-DRGs	3M for CMS	No	No	No	**Yes**	**Yes**	**Yes**	**Yes**
AP-DRGs	3M	**Yes**	**Yes**	**Yes**	**Yes**	No	No	No
APR-DRGs	3M/NACHRI	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**
APS-DRGs	OptumInsight	**Yes**	**Yes**	**Yes**	No	No	**Yes**	No
Tricare DRGs	3M for Tricare	**Yes**	No	No	**Yes**	**Yes**	No	No
R-DRGs	HSC	**Yes**	**Yes**	**Yes**	No	No	**Yes**	No
Thom-DRGs	Thomson	**Yes**	**Yes**	No	No	No	**Yes**	No

Note:

1. Xerox has no financial interest in any DRG grouping algorithm.

2.2.1 Applicability of APR-DRGs to Medicaid

The obvious path for a Medicaid DRG payment method would be to follow Medicare, and in fact many states that adopted DRGs in the 1980s did adopt Medicare DRGs. Mindful of this influence, Medicare split some DRGs into pediatric and adult DRGs and announced plans to improve the structure of its neonatal DRGs despite the fact that Medicare pays for, literally, fewer than 20 newborns a year.[13] In developing relative weights by DRG, it also supplemented its own data with all-patient claims data from approximately 20 states in order to calculate more stable weights for neonatal, pediatric and obstetric DRGs.

In a significant policy shift, the Centers for Medicare and Medicaid Services (CMS) announced in 2004 that it would no longer take the needs of other payers into account.

> "We advise those non-Medicare systems that need a more up-to-date system to choose from other systems that are currently in use in this country, or to develop their own modifications. As previously stated, we do not have the data or the expertise to develop more extensive newborn and pediatric DRGs. Our mission in maintaining the Medicare DRGs is to serve the Medicare population."[14] (Emphasis added)

Moreover, in 2007 Medicare itself adopted a new grouper, which was the most significant change in the Medicare inpatient payment method since 1983. The new grouper, called Medicare Severity DRGs or MS-DRGs, is a completely new algorithm that, among other changes, increased the number of DRGs from 538 to 745. In describing MS-DRGs, CMS made several statements intended to underscore that MS-DRGs were developed only for the Medicare population. For example:

> "The MS-DRGs were specifically designed for purposes of Medicare hospital inpatient services payment. As we stated above, we generally use MEDPAR data to evaluate possible DRG classification changes and recalibrate the DRG weights. The MEDPAR data only represent hospital inpatient utilization by Medicare beneficiaries. We do not have comprehensive data from non-Medicare payers to use for this purpose. The Medicare program only provides health insurance benefits for people over the age of 65 or who are disabled or suffering from end-stage renal disease. Therefore, newborns, maternity, and pediatric patients are not well represented in the MEDPAR data that we used in the design of the MS-DRGs. We simply do not have enough data to establish stable and reliable DRGs and relative weights to address the needs of non-Medicare payers for pediatric, newborn, and maternity patients. For this reason, we encourage those who want to use MS-DRGs for patient populations other than Medicare make the relevant refinements to our system so it better serves the needs of those patients."[15]

For Medicaid programs, some of the key problems with MS-DRGs are:

- ***Medicare focus***. All analysis was done only on a Medicare dataset that reflects the Medicare population of people age 65 and over or people under 65 with disabilities. Relative to a Medicaid population, including the Medi-Cal population, the newborn, pediatric and obstetric populations are grossly under-represented. MS-DRGs take little account of specific conditions that are more often seen in the younger Medicaid population, such as sickle cell anemia, cystic fibrosis, repair of congenital defects, respiratory syncytial virus (RSV) pneumonia, bronchiolitis and other pediatric infections.

- ***Discontinuation of pediatric DRGs***. Under CMS-DRGs, Medicare had 41 DRGs that were specific to patients under age 18 (in addition to the neonate DRGs). Medicare made these splits because of statistically significant differences in hospital resources by age. These splits have been discontinued and MS-DRGs reflect no consideration of the impact of pediatric age on hospital resource use by DRG.

- ***No consideration of children with complex medical needs***. Even with the age splits of CMS-DRGs, the algorithm was less than adequate in grouping children with complex medical needs, e.g., cardiovascular anomalies, spina bifida, cerebral palsy, and cancer.[16] For these patients, MS-DRGs are completely inadequate.

- ***No updates to obstetric and newborn DRGs.*** The structure of the obstetric and newborn DRGs was unchanged from the previous CMS-DRG algorithm, that is, essentially unchanged since the 1980s.

- ***No use of birthweight***. Birthweight has been shown to be a very strong predictor of length of stay and hospital cost, yet MS-DRGs do not use birthweight in grouping. A study in the journal *Pediatrics* confirmed earlier studies that the Medicare grouper systematically over-pays for normal newborns and under-pays for sick babies.[17]

- ***Inappropriate CC list for obstetrics.*** Like CMS-DRGs, MS-DRGs use a standard list of complications and comorbidities (CC) to adjust the severity of an individual patient's DRG assignment. For MS-DRGs, Medicare updated the list and split it into CCs and major CCs. It did not, however, adjust the list for the different implications that individual CCs may have on obstetric cases. Hypertension and diabetes, for example, are typically more clinically significant in obstetric patients than in medical and surgical patients.

For Medicaid programs that follow Medicare's lead in inpatient payment, the introduction of MS-DRGs created an uncomfortable situation. Either they continue to use CMS-DRGs, which are no longer maintained by CMS or anyone else, or they adopt MS-DRGs, which CMS says are unsuitable for non-Medicare populations. Many states are considering their options. As shown in Chart 2.2.1.1, APR-DRGs have been implemented by twelve Medicaid programs in Florida, Maryland, Massachusetts, Mississippi, Montana, New York, North Dakota, Ohio, Pennsylvania, Rhode Island, South Carolina and Texas. APR-DRG implementations are planned by seven Medicaid programs in Arizona, Colorado, the District of Columbia, Illinois, Nebraska, Washington and Wisconsin.

Chart 2.2.1.1

How Medicaid Pays for Hospital Inpatient Care

As of September 2013

Per Stay -- CMS-DRGs

CO*, IA, IL*, KS**, KY, MN, NC**, UT, VT, WV**

* Moving to APR-DRGs ** Moving to MS-DRGs

Per Stay -- AP or Tricare DRGs

DC*, GA, IN, NE*, NJ, VA, WA*

* Moving to APR-DRGs

Per Stay -- MS-DRGs

MI, NH, NM, OK, OR, SD, WI*

* Moving to APR-DRGs

Per Stay -- Other

DE, MA*, NV, WY

* Casemix adjustment based on APR-DRGs

Per Stay -- APR-DRGs

CA, FL, MS, MT, ND, NY, OH, PA, RI, SC, TX

Per Diem

AK, AZ*, HI, LA, MO, TN

* Moving to APR-DRGs

Cost Reimbursement

AL, AR, CT, ID, ME

Other (Regulated Charges)

MD*

* Casemix adjustment based on APR-DRGs

Guide: CMS-DRGs:	Centers for Medicare and Medicaid Services Diagnosis Related Groups (used by Medicare until 10/1/07)
MS-DRGs:	Medicare Severity DRGs (used by Medicare starting 10/1/07)
AP-DRGs:	All Patient DRGs (3M)
APR-DRGs:	All Patient Refined DRGs (3M)
Tricare-DRGs:	DRGs used by Tricare (formerly Civilian Health and Medical Program for Uniformed Services)

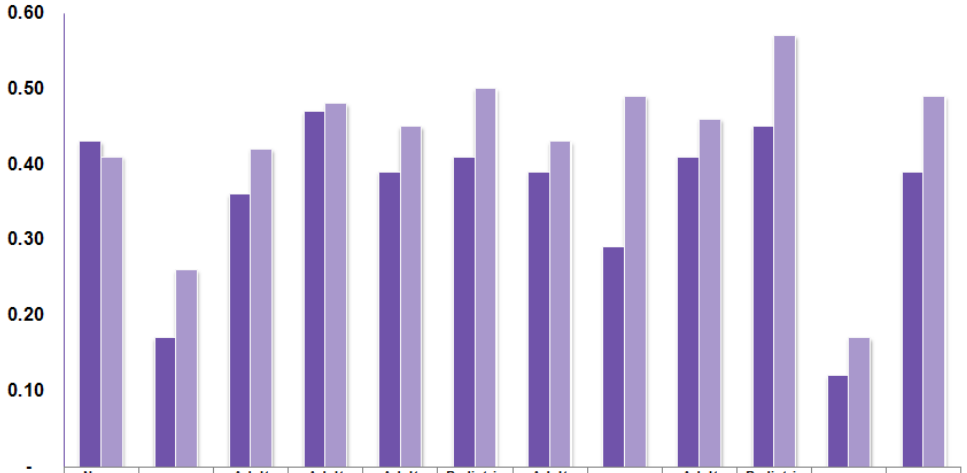
Notes:

1. Sources: Individual states, Xerox State Healthcare, 3M Health Information Systems, Ingenix Inc., Navigant Inc.
2. Xerox does not have a financial interest in any DRG grouping algorithm.
3. Payment method refers to the primary method of payment for general acute care hospitals.

To analyze the suitability of MS-DRGs and APR-DRGs for the Medi-Cal population, the California Hospital Association asked the Triage Consulting Group to apply both algorithms to the 2008 Medi-Cal patient discharge dataset compiled by the Office of Statewide Health Planning and Development. Standard practice is to examine the reduction in variance (R^2) in hospital resource use that results from grouping stays by DRG.[18] As Chart 2.2.1.2 shows, APR-DRGs explained 49 percent of the variation in the cost of care, performing better overall than MS-DRGs (39 percent).

Moreover, APR-DRGs performed better in 10 of the 11 Medicaid Care Categories, with the differences in the obstetric, neonate, pediatric respiratory and pediatric miscellaneous categories particularly notable for a Medicaid population. The exception was the normal newborn category, where the two algorithms performed very similarly. These results echo similar results obtained from analyses of Medicaid data in Mississippi, Rhode Island and Montana.[19]

Chart 2.2.1.2
Statistical Performance (Reduction in Variance)
of MS-DRGs and APR-DRGs on Medi-Cal 2008 Data
(Dark purple bars = MS-DRGs; Light purple bars = APR-DRGs)



	Norm newborn	Obstetric	Adult misc.	Adult circ.	Adult digestive	Pediatric misc.	Adult resp.	Neonate	Adult nerv syst.	Pediatric resp.	MH/rehab	Overall
MS-DRGs	0.43	0.17	0.36	0.47	0.39	0.41	0.39	0.29	0.41	0.45	0.12	0.39
APR-DRGs	0.41	0.26	0.42	0.48	0.45	0.50	0.43	0.49	0.46	0.57	0.17	0.49

Higher R^2 results indicate better performance. Medicaid Care Categories are shown in decreasing order of total stays.
Analysis done by Triage Consulting Group for the California Hospital Association.

2.2.2 Adoption of APR-DRGs

The choice of a particular DRG algorithm will affect the payment of billions of dollars to California hospitals in coming years, affecting not only hospital finances, but also access to care for Medi-Cal beneficiaries, especially in areas where the program has a sizable share among payers. Therefore, the chosen grouper should be very well scrutinized and understood. APR-DRGs meet this standard.

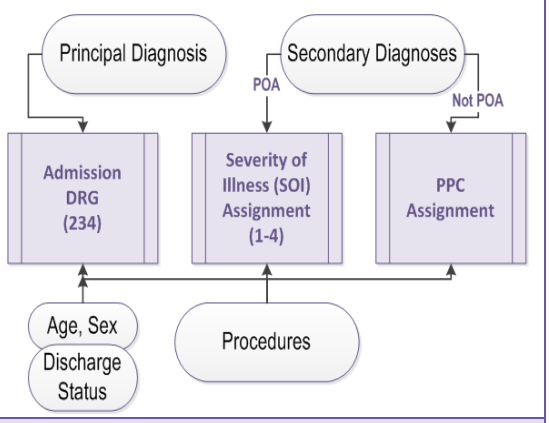
In addition to adoption of payment by Medicaid programs as described above, APR-DRGs also have been adopted or planned for use by Wellmark plans in Iowa and South Dakota and by BlueCross BlueShield plans in Massachusetts, Minnesota, Nebraska, New York and Tennessee. APR-DRGs are also widely used to adjust for casemix differences in measuring hospital performance with regard to mortality, potentially preventable readmissions and potentially preventable complications. Examples include *U.S. News & World Report*, HealthGrades.com, the Joint Commission, and analysis of Medicare data by the Medicare Payment Advisory Commission (MedPAC).

At the state level, APR-DRGs have been used to adjust for casemix differences in performance measures in Florida, Hawaii, Maryland, Massachusetts, New York, Texas, and Utah. 3M Health Information Systems, which owns APR-DRGs, reports that over 2,000 hospitals nationwide hold APR-DRG licenses and that APR-DRGs have been used or evaluated in over 50 journal articles.

The most common criticisms of APR-DRGs are their complexity and the fact that they are dissimilar to Medicare MS-DRGs. In both cases, there are offsetting benefits. The structure is complex because APR-DRGs are a sophisticated algorithm especially designed to capture the costs of patients with multiple comorbidities. Although the 18-step grouping logic is complex, all steps are detailed in a publicly available definitions manual. It is possible to walk a claim through the algorithm to derive the APR-DRG assignment. The structure of DRGs – 314 base DRGs, each with four levels of severity – is dissimilar to MS-DRGs, but the APR-DRG structure has the advantage of being easier to understand. Medicare, on the other hand, sometimes separates a condition into three severities (no complications or comorbidities, with CC, with major CC) and combines two or all severity levels into a single DRG. As noted above, the APR-DRG structure was also designed for use with an all-patient population while MS-DRGs were not.

Table 2.2.3.1

Assignment of an APR DRG



Note:
1. Xerox has no financial interest in any DRG grouping algorithm.

2.2.3 Assignment of an APR-DRG

Table 2.2.3.1 shows how DRGs are assigned to claims. The base DRG (a three-digit code) is based on the primary diagnosis, procedures, age, gender, and discharge status as coded on the claim. Each DRG has a severity of illness (SOI) assignment – 1 through 4 (1 is minor; 4 is major). This assignment is based on secondary diagnoses in addition to procedures, age, gender and discharge status.

2.2.4 Applicability to Paying for Quality

At the national level, there has been considerable interest in measuring and incentivizing provision of quality care, especially with regard to reducing potentially preventable readmissions and the complications of inpatient care. Similarly, there has been much discussion of possibly bundling episodes of inpatient and related outpatient care. While discussion of these topics is beyond the scope of this project, we do believe that such initiatives must include accurate risk adjustment. For example, simple counts of readmissions are unfair to hospitals that have significant numbers of readmissions that are not potentially clinically related to the original admission.

At this time, APR-DRGs have been used more widely than any other DRG algorithm to risk-adjust measurements of quality and therefore are more likely than other algorithms to be suitable in the future. As noted above, they are certainly more applicable for risk adjustment in a Medicaid population than MS-DRGs.

2.3 DRG Grouper Version

Although there are various DRG algorithms, some even with different developers, a convention of the industry is that all versions are numbered in parallel starting from October 1, 1983. For example, the first version of MS-DRGs was V.25, effective October 1, 2007. New versions are issued October 1 of each year, to coincide with the release of the new ICD-9-CM diagnosis and procedure codes, upon which the DRG logic relies.

APR-DRG Version

Payment simulations for this project were done using V.29 of APR-DRGs, which was released October 1, 2011. For implementation July 1, 2013, Medi-Cal implemented the same APR-DRG version 29 as had been used for data analysis and in development of the policy design document. This time frame allowed time for the Department and the hospitals to install and test the APR-DRG grouper version 29.

The developers of APR-DRGs, 3M Health Information Systems, recommended that all users move to V.30 or V.31 prior to ICD-10 implementation in order to have access to the unofficial preliminary versions of ICD-10-CM/PCS for testing purposes. We recommended that V.30, which was released October 1, 2012, not be used for the July 2013 implementation. The reason was that substantial changes, including the availability of two sets of relative weights and a change in the assignment of severity for non-specific diagnosis codes, occurred between V.29 and V.30. For both the Department and the hospitals, it would have been too rushed to attempt to analyze, simulate and implement V.30 between October 1, 2012, and the initial use of DRGs July 1, 2013. For this reason, the Department will move straight from V.29 to V.31 on July 1, 2014, using the ICD-9 code set. Now that the DRG payment method is in operation, the 9-month interval between the release of V.31 October 1, 2013, and its implementation July 1, 2014, will allow time for analysis of at least six months of claims paid under the DRG method.

Code Mapper Software

Typically, the federal government changes the ICD-9-CM codes each October, usually adding new codes. For payers that are not using the very latest APR-DRG version, 3M

then releases a mapper algorithm that maps the new ICD-9-CM codes back to pre-existing ICD-9-CM codes that can be recognized by previous APR-DRG versions.

This year and last year, however, the federal government has essentially frozen the ICD-9-CM in anticipation of ICD-10 implementation October 1, 2014. No change was made to the diagnosis list October 1, 2012, and no change will be made October 1, 2013. As of October 1, 2012, one new procedure was added; as of October 1, 2013, four new procedure codes will be added.[20] The impact of the procedure code changes on DRG grouping is expected to be negligible, if at all. Although it would be good practice to install code mapper software to map the new ICD-9-CM codes effective October 1, 2013 back to codes that the V.29 APR-DRG algorithm would recognize, this task is not urgent because only five procedure codes have been added to the ICD-9-CM list since October 1, 2011.

The 3M mapper also handles changes in the UB-04 list of discharge statuses. Usually, there are no changes or the changes are minor. For October 1, 2013, however, there are 16 new status values. Of those, 15 are repeats of existing values except with a connotation that "readmission is planned." In a few DRG grouping situations (e.g., DRG 581-1, Neonate, transferred < 5 days old, born here) the discharge status does affect the DRG assignment. In the vast majority of stays, discharge status has no impact on DRG assignment, although it does affect transfer pricing (which occurs outside the grouper). We expect the new UB-04 discharge status values to be rarely used and to have essentially no impact on grouping of claims under V.29 of APR-DRGs. Although installing the mapper is not urgent, its installation will make mapping of both ICD-9-CM procedure codes and UB-04 discharge status codes more accurate for purposes of DRG grouping.

HCAC Version

For implementation of health care-acquired conditions (HCAC), Medi-Cal will implement the V.30 logic effective July 1, 2013 using a manual solution until the HAC utility is implemented on July 1, 2014. The differences between V.29 and V.30 of the HCAC logic are minor in nature. See Section 4.10.1 on HCACs.

2.4 ICD-10 Impact

2.4.1 Background

The compliance date for implementation of the International Classification of Diseases, 10th Edition, Clinical Modification/Procedure Coding System (ICD-10-CM/PCS) was originally set for October 1, 2013, for all covered entities. On September 5, 2012, CMS changed the compliance date to October 1, 2014.[21]

ICD-10-CM/PCS will enhance accurate payment for services rendered and facilitate evaluation of medical processes and outcomes. The United Kingdom, Australia and Canada have already moved to ICD-10. The new classification system provides significant improvements through more detailed information and the ability to expand in order to capture additional advancements in clinical medicine. ICD-10-CM and ICD-10-PCS are the American variants of the ICD-10 system.

- ***ICD-10-CM.*** The diagnosis classification system was developed by the Centers for Disease Control and Prevention for use in all healthcare treatment settings.

Diagnosis coding under this system uses three to seven alpha and numeric digits and full code titles, while the ICD-9-CM coding system uses three to five alpha or numeric digits.

- ***ICD-10-PCS.*** The procedure classification system was developed by the Centers for Medicare and Medicaid Services (CMS) for use only in inpatient hospital settings. The new procedure coding system uses seven alpha or numeric digits while the ICD-9-CM coding system uses three or four numeric digits.

ICD-10-CM/PCS includes much greater specificity of clinical information and enables updated medical terminology and classification of diseases. Table 2.4.1.1 shows two examples where ICD-10-CM/PCS codes are more precise and provide better clinical information.[22]

Table 2.4.1.1

Comparative Examples for ICD 9 CM and ICD 10 CM

ICD 9 CM	ICD 10 CM
Example: Pressure Ulcer Codes	
9 location codes (707.00 – 707.09) • Show broad location, but not depth (stage)	125 codes • Show more specific location as well as depth, including: – L89.131 – Pressure ulcer of right lower back, stage I – L89.132 – Pressure ulcer of right lower back, stage II – L89.133 – Pressure ulcer of right lower back, stage III – L89.134 – Pressure ulcer of right lower back, stage IV – L89.139 – Pressure ulcer of right lower back, unspecified stage – L89.141 – Pressure ulcer of left lower back, stage I – L89.142 – Pressure ulcer of left lower back, stage II – L89.143 – Pressure ulcer of left lower back, stage III – L89.144 – Pressure ulcer of left lower back, stage IV – L89.149 – Pressure ulcer of left lower back, unspecified stage – L89.151 – Pressure ulcer of sacral region, stage I – L89.152 – Pressure ulcer of sacral region, stage II
Example: Angioplasty	
• 1 code (39.50)	854 codes • Specifying body part, approach, and device, including: – 047K04Z – Dilation of right femoral artery with drug-eluting intraluminal device, open approach – 047K0DZ – Dilation of right femoral artery with intraluminal device, open approach – 047K0ZZ – Dilation of right femoral artery, open approach – 047K34Z – Dilation of right fem. art. with drug-eluting intraluminal device, percutaneous approach – 047K3DZ – Dilation of right fem. art. with intraluminal device, percutaneous approach

As with the ICD-9-CM changes described in Section 2.3, the federal government is attempting to minimize the number of changes to the ICD-10 codeset during these years of transition.

As of October 1, 2014, all payers must accept ICD-10 codes. While all payers are expected to eventually use ICD-10 codes in claims adjudication, during a transition period many payers plan to map ICD-10 codes to ICD-9-CM codes and then continue to use ICD-9-CM codes in adjudication.

For testing purposes, 3M has made available APR-DRG V.29, V.30, and V.31 software that accept the current, unofficial ICD-10 codes. 3M recommends that all payers updated to V.30 or v.31 prior to October 1, 2014. The final and HIPAA-compliant ICD-10 codeset will not be available until July 2014 when the final rule is published. Once the codeset is finalized, 3M will incorporate it in the APR-DRG V.32 software grouper software for October 1, 2014, which does not allow time for a prescribed, evaluated, and planned updated to V.32 by October 1, 2014. Recommendations for 2014 are shown in Section 2.4.2.

2.4.2 Timing for CA-MMIS Changes

We recommend that DHCS update the APR-DRG version every July 1, with changes to the diagnosis and procedure mapping as needed each October 1.

In general terms, Medicaid programs and other payers across the country have three options for implementing ICD-10 in their claims processing systems. Option 1 is recommended for implementation October 1, 2014, for inpatient hospital claims only. Option 2 will take effect when Medi-Cal implements V.32 of APR-DRGs on July 1, 2015. Option 3 is the DHCS plan for all other claims as of October 1, 2014. It is also the contingency plan for inpatient hospital claims.

For purposes of illustration, we use a diagnosis of femur fracture (ICD-9-CM code 820.02, ICD-10-CM code S72.031A).

1. **ICD-10 native interim solution:** Under this option, CA-MMIS receives the ICD-10 codes and inputs them to the 3M software. Using V.32 of the APR-DRG mapper, the ICD-10 codes are mapped to the ICD-9-CM codes using a crosswalk specifically designed to minimize the impact on APR-DRG grouping. That is, to the greatest extent possible, the APR-DRG assignment would be unaffected by the transition from ICD-9-CM to ICD-10. For example, the hospital submits ICD-10-CM code S72.031A, the 3M software crosswalks it to ICD-9-CM code 820.02, and the APR-DRG grouper assigns APR-DRG 340-1, femur fracture. We recommend that the software continue to use APR-DRG v.31 on October 1, 2014, which would have been implemented on July 1, 2014. That is, the same grouping logic and relative weight values would be the same as DHCS implements July 1, 2014. This path minimizes confusion and the risk of error. It also would allow time for analysis of APR-DRGs V.32 before DHCS implements it July 1, 2015. Note: V.32 of the mapper must be implemented on October 1 for this option to be HIPAA-compliant.

2. **ICD-10 native format:** Under this option, CA-MMIS receives the ICD-10 codes and uses them throughout claims adjudication, including DRG pricing. For example, the hospital submits ICD-10-CM code S72.031A and the APR-DRG grouper assigns APR-DRG 340-1, femur fracture. This option is often called “ICD-10 native format.” It is not being implemented October 1, 2014, because of

the preference for additional testing and evaluation of impact on policy and finances. This option will be used when V.32 of the APR-DRG software is implemented on July 1, 2015.

3. **ICD-10 crosswalk:** Under Option 3, CA-MMIS receives the ICD-10 codes, maps them to ICD-9-CM codes, then uses the mapped ICD-9-CM codes throughout claims adjudication, including DRG assignment. For example, the hospital submits ICD-10-CM code S72.031A, then CA-MMIS crosswalks it to ICD-9-CM code 820.02, then uses ICD-9-CM code 820.02 in all subsequent claim adjudication, including the assignment of APR-DRG 340-1, femur fracture. Because the impact of ICD diagnosis and procedure codes is much greater for hospital inpatient care than for any other type of service, it is feasible to use Options 1 and 2 for hospital inpatient care but Option 3 for all other care. Options 1 and 2 are not available for all other care because it is within the 3M software designed for hospital inpatient claims. Option 3 is undesirable for hospital inpatient care because APR-DRG V.31 as the 3M solution is preferred.

Chart 2.4.2.1

Sequencing of APR DRG Version Changes with ICD 10 Implementation

	3M APR DRG Release			HIPAA Compliant ICD 10	Medi Cal Implementation Current Plan ICD 10 "Native Format	
Date	**Version**	**ICD 9 Avail**	**ICD 10 for Testing**		**Version**	**Comment**
10/1/2011	V.29	Y	N	N		
1/1/2012						
4/1/2012						
7/1/2012						
10/1/2012	V.30	Y	Y	N		
1/1/2013						
4/1/2013						
7/1/2013					**V.29**	**DRG go-live; ICD-9 input**
10/1/2013	V.31	Y	Y	N	V.29	ICD-9 input
1/1/2014					V.29	ICD-9 input
4/1/2014					V.29	ICD-9 input
7/1/2014					V.31	ICD-9 input
10/1/2014	**V.32**	**N**	**Y**	**Y**	**V.31**	**ICD-10 go live; ICD-10 bridge to ICD-9 for DRG assignment**
1/1/2015					V.31	ICD-10 bridge to ICD-9 for DRG assignment
4/1/2015					V.31	ICD-10 bridge to ICD-9 for DRG assignment
7/1/2015					**V.32**	**ICD-10 input with ICD-10 native assignment of DRG**
10/1/2015	V.33	N	N/A	Y	V.32	ICD-10 input with ICD-10 native assignment of DRG
1/1/2016					V.32	ICD-10 input with ICD-10 native assignment of DRG
4/1/2016					V.32	ICD-10 input with ICD-10 native assignment of DRG

Chart 2.4.2.1 Sequencing of APR DRG Version Changes with ICD 10 Implementation						
	3M APR DRG Release			HIPAA Compliant ICD 10	Medi Cal Implementation Current Plan ICD 10 "Native Format	
Date	Version	ICD 9 Avail	ICD 10 for Testing		Version	Comment
7/1/2016					V.33	ICD-10 input with ICD-10 native assignment of DRG
10/1/2016	V.34	N	N/A		V.33	ICD-10 input with ICD-10 native assignment of DRG
1/1/2017					V.33	ICD-10 input with ICD-10 native assignment of DRG
4/1/2017					**V.33**	**Enterprise go-live; ICD-10 native assignment**
7/1/2017					V.34	ICD-10 native assignment
10/1/2017	V.35	N	N/A		V.34	ICD-10 native assignment

Notes:

1. V.30 incorporates changes to the clinic logic but the number of DRGs is unchanged.
2. The clinical logic of V.31 and V.32 is expected to be essentially unchanged from V.30.
3. Few if any changes to the ICD-9 codes are expected 10/1/13. The first few years of ICD-10 are likely to be stable as well, though this is less certain.
4. 3M recommends that all APR-DRG users update to V.30 or V.31 prior to ICD-10 implementation.
5. V.32 will be available by 10/1/14 and is the earliest version that can be used for APR-DRG assignment using ICD-10-CM/PCS codes. If V.29, V.30, or V.31 are used, then 3M provides a bridge to translate the ICD-10 codes to ICD-9 for DRG assignment.

2.5 Relative Weights

The choices of a grouping algorithm and the choice of a basis for relative weights are logically separate. Once a Medicaid program has chosen the grouping algorithm, the relative weights can be adopted from another payer, calculated from a national dataset like the Nationwide Inpatient Sample, or calculated by a state from its own data.

For every payer, there are two challenges in calculating DRG weights. The first is the substantial effort necessary to regularly update and recalibrate the set of DRG weights. The second issue – even in California – is that some DRGs do not occur often enough to yield stable weights. In our analytic dataset of 2009 Medi-Cal claims, for example, there are 381 out of 1,256 APR-DRGs that have fewer than 30 stays and another 29 APR-DRGs with zero stays.[23] In the simulation baseline dataset (i.e., after considering the expected transition of many beneficiaries to managed care), there are 458 APR-DRGs with fewer than 30 stays and 43 APR-DRGs with zero volume. There are ways to deal with the issue of unstable weights, but one simple solution is to use relative weights calculated by someone else from national data. The essential caveat, of course, is that the national weights would have to be accurate for the California dataset.

To analyze this question, we calculated both cost-based and charge-based weights from the analytical dataset. Although weight calculation can be an esoteric topic,[24] in essence it is very simple. If the average cost of a stay in DRG 123 is $15,000 and the overall average cost per stay is $10,000, then the relative weight of DRG 123 is 1.50.

Refinements can be made by trimming extreme stays from the dataset, but such refinements would not affect the results discussed here.

Table 2.5.1 shows alternative sets of relative weights as well as other statistics commonly used in evaluating claims datasets for purposes of weight calculation. We first calculated Medi-Cal charge-based and Medi-Cal cost-based weights. As expected, the results were virtually identical (correlation coefficient = 0.999 for the 30 most common DRGs and 0.985 for all DRGs). Although the levels of charges and costs for any one DRG are very different, the positions of DRGs relative to each other tend to be very similar regardless of whether one uses charges or cost as the measure. We therefore chose to compare cost-based relative weights with national charge-based APR-DRG weights. The V.29 national weights are calculated by 3M Health Information Systems from a two-year dataset of 15.5.million stays in the Nationwide Inpatient Sample, which includes general hospitals and freestanding children's hospitals. To make the comparison easier to visualize, we re-centered the Medi-Cal weights, so that the overall average would be 0.70, that is, the same overall average that stems from application of national weights to the Medi-Cal data. (We used the analytical dataset, rather than the simulation baseline dataset, in order to make use of as much data as possible.)

Table 2.5.1

Data by APR-DRG Relevant to Calculation of Relative Weights

APR DRG	Description	Stays	Days	Charges	Est. Cost	CA MCD ALOS	V.29 Natl ALOS	Avg Charge	Avg Cost	SD Cost	CV Cost	RSE Cost	CA Chg Weight	CA Cost Weight	CA Cost Wt Recovered	V.29 Natl Case mix	n < 30	RSE > 29%	CV > 100%
640-1	Normal Newborn, Bwt >2499G	139,196	297,543	$631,929,500	$146,658,208	2.1	2.1	$4,540	$1,054	$2,227	211%	1%	0.12	0.12	0.09	0.10			1
560-1	Vaginal Del	68,222	133,236	$829,993,929	$191,713,182	2.0	2.0	$12,166	$2,810	$1,252	45%	0%	0.33	0.33	0.23	0.31			
540-1	Cesarean Del	36,767	116,578	$835,063,993	$206,357,005	3.2	3.0	$24,344	$5,613	$2,373	42%	0%	0.66	0.65	0.45	0.52			
560-2	Vaginal Del	20,946	48,125	$320,122,814	$75,595,806	2.3	2.4	$15,283	$3,609	$2,136	59%	0%	0.41	0.42	0.29	0.35			
540-2	Cesarean Del	8,714	35,322	$275,245,556	$63,960,846	4.1	4.1	$31,587	$7,340	$5,445	74%	1%	0.85	0.85	0.59	0.63			
720-4	Septicemia & Disseminated Inf	4,855	56,175	$763,063,878	$167,482,211	11.6	9.6	$157,171	$34,497	$42,028	122%	2%	4.23	4.01	2.79	2.73			1
139-2	Oth Pneumonia	3,839	14,941	$117,597,728	$28,379,777	3.8	3.8	$30,161	$7,279	$6,060	83%	1%	0.81	0.85	0.59	0.58			
566-2	Oth Antepartum Diags	3,576	9,455	$61,323,988	$14,499,255	2.6	3.0	$17,149	$4,055	$4,135	102%	2%	0.46	0.47	0.33	0.34			1
640-2	Normal Newborn, Bwt >2499G	3,359	16,542	$89,022,724	$20,585,688	4.9	2.5	$26,503	$6,129	$10,418	170%	3%	0.71	0.71	0.50	0.14			1
194-2	Heart Failure	3,282	11,883	$108,817,664	$24,030,415	3.6	3.8	$33,156	$7,322	$5,710	78%	1%	0.89	0.85	0.59	0.63			
140-2	COPD	3,266	12,400	$103,554,831	$23,665,712	3.8	4.0	$31,707	$7,246	$4,964	69%	1%	0.85	0.84	0.59	0.62			
566-1	Oth Antepartum Diags	3,081	6,186	$39,631,921	$9,232,343	2.0	2.1	$12,863	$2,997	$2,776	93%	2%	0.35	0.35	0.24	0.26			
541-1	Vag Del w Ster &/or D&C	2,993	6,435	$59,805,083	$13,759,484	2.2	2.1	$19,982	$4,597	$1,851	40%	1%	0.54	0.53	0.37	0.48			
194-3	Heart Failure	2,945	15,233	$153,063,934	$33,288,623	5.2	5.6	$51,974	$11,303	$9,266	82%	2%	1.40	1.31	0.91	0.94			
139-3	Oth Pneumonia	2,804	15,583	$144,338,588	$32,838,843	5.6	5.5	$51,476	$11,711	$12,182	104%	2%	1.39	1.36	0.95	0.89			1
720-3	Septicemia & Disseminated Inf	2,742	18,924	$176,718,683	$40,100,616	6.9	6.3	$64,449	$14,625	$15,459	106%	2%	1.74	1.70	1.18	1.17			1
560-3	Vaginal Del	2,536	8,963	$61,495,049	$14,524,779	3.5	3.8	$24,249	$5,727	$5,028	88%	2%	0.65	0.67	0.46	0.51			
225-1	Appendectomy	2,386	4,033	$78,881,705	$19,260,532	1.7	1.6	$33,060	$8,072	$3,256	40%	1%	0.89	0.94	0.65	0.77			
138-1	Bronchiolitis & RSV Pneumonia	2,371	6,598	$38,063,639	$9,036,205	2.8	2.4	$16,056	$3,811	$2,992	79%	2%	0.43	0.44	0.31	0.29			
463-2	Kidney & Urinary Tract Inf	2,371	8,033	$57,852,828	$13,762,555	3.4	3.5	$24,400	$5,805	$3,929	68%	1%	0.66	0.67	0.47	0.53			
140-3	COPD	2,351	11,628	$108,543,395	$23,845,083	4.9	5.2	$46,169	$10,143	$8,569	84%	2%	1.24	1.18	0.82	0.85			
420-2	Diabetes	2,240	6,152	$56,572,793	$13,438,824	2.7	2.8	$25,256	$5,999	$6,488	108%	2%	0.68	0.70	0.49	0.50			1
460-3	Renal Failure	2,191	11,643	$108,423,344	$24,436,578	5.3	5.1	$49,486	$11,153	$10,111	91%	2%	1.33	1.30	0.90	0.85			
540-3	Cesarean Del	2,163	13,335	$106,424,329	$24,081,373	6.2	6.8	$49,202	$11,133	$11,213	101%	2%	1.32	1.29	0.90	0.93			1
139-1	Oth Pneumonia	2,135	6,469	$43,390,872	$10,719,319	3.0	2.7	$20,324	$5,021	$18,003	359%	8%	0.55	0.58	0.41	0.39			1
693-2	Chemothapy	2,125	8,781	$88,720,354	$23,473,231	4.1	3.8	$41,751	$11,046	$12,017	109%	2%	1.12	1.28	0.89	0.98			1
383-2	Cellulitis & Oth Bact Skin Inf	2,027	8,512	$58,522,859	$14,024,955	4.2	4.2	$28,872	$6,919	$6,602	95%	2%	0.78	0.80	0.56	0.58			
203-2	Chest Pain	2,026	3,645	$43,207,158	$9,673,612	1.8	1.9	$21,326	$4,775	$2,758	58%	1%	0.57	0.56	0.39	0.51			
263-1	Laparoscopic Cholecystectomy	1,893	4,215	$72,011,623	$17,374,266	2.2	2.4	$38,041	$9,178	$4,199	46%	1%	1.02	1.07	0.74	0.89			
383-1	Cellulitis & Oth Bact Skin Inf	1,861	6,217	$39,713,626	$9,702,465	3.3	3.0	$21,340	$5,214	$3,712	71%	2%	0.57	0.61	0.42	0.42			
203-1	Chest Pain	1,841	2,595	$33,465,444	$7,467,099	1.4	1.5	$18,178	$4,056	$2,398	59%	1%	0.49	0.47	0.33	0.44			
263-2	Laparoscopic Cholecystectomy	1,806	6,179	$91,071,613	$21,344,429	3.4	3.6	$50,427	$11,819	$5,792	49%	1%	1.36	1.37	0.96	1.14			
636-1	Neo Bwt >2499G w Inf	1,652	13,642	$87,037,766	$18,798,325	8.3	5.4	$52,686	$11,379	$11,435	100%	2%	1.42	1.32	0.92	0.67			1
053-2	Seizure	1,632	4,587	$42,299,333	$10,021,791	2.8	3.0	$25,919	$6,141	$6,265	102%	3%	0.70	0.71	0.50	0.59			1
198-2	Angina Pect & Atherosclerosis	1,623	3,633	$36,747,602	$8,229,962	2.2	2.2	$22,642	$5,071	$3,394	67%	2%	0.61	0.59	0.41	0.48			
463-3	Kidney & Urinary Tract Inf	1,598	7,867	$62,115,921	$14,007,590	4.9	4.9	$38,871	$8,766	$12,442	142%	4%	1.05	1.02	0.71	0.74			1
463-1	Kidney & Urinary Tract Inf	1,583	4,898	$29,371,829	$7,364,289	3.1	2.7	$18,555	$4,652	$3,561	77%	2%	0.50	0.54	0.38	0.40			
141-1	Asthma	1,558	3,445	$25,590,280	$6,408,018	2.2	2.2	$16,425	$4,113	$3,413	83%	2%	0.44	0.48	0.33	0.35			
140-1	COPD	1,412	4,353	$34,772,033	$8,102,668	3.1	3.3	$24,626	$5,738	$4,138	72%	2%	0.66	0.67	0.46	0.49			
138-2	Bronchiolitis & RSV Pneumonia	1,397	5,220	$30,551,039	$7,778,825	3.7	3.1	$21,869	$5,568	$4,933	89%	2%	0.59	0.65	0.45	0.39			

Table 2.5.1
Data by APR-DRG Relevant to Calculation of Relative Weights

APR DRG	Description	Stays	Days	Charges	Est. Cost	CA MCD ALOS	V.29 Natl ALOS	Avg Charge	Avg Cost	SD Cost	CV Cost	RSE Cost	CA Chg Weight	CA Cost Weight	CA Cost Wt Recentered	V.29 Natl Case mix	n < 30	RSE > 29%	CV > 100%
563-1	Threatened Abortion	1,392	2,955	$18,557,192	$4,218,104	2.1	2.8	$13,331	$3,030	$3,097	102%	3%	0.36	0.35	0.25	0.28			1
225-2	Appendectomy	1,387	5,690	$66,042,437	$16,373,724	4.1	3.7	$47,615	$11,805	$6,413	54%	1%	1.28	1.37	0.96	1.04			
249-2	Non-Bact Gastroenteritis, N & V	1,387	3,771	$29,695,791	$6,998,820	2.7	2.9	$21,410	$5,046	$3,865	77%	2%	0.58	0.59	0.41	0.47			
249-1	Non-Bact Gastroenteritis, N & V	1,282	2,950	$20,567,195	$5,391,770	2.3	2.1	$16,043	$4,206	$20,612	490%	14%	0.43	0.49	0.34	0.34			1
141-2	Asthma	1,238	3,809	$31,387,877	$7,585,176	3.1	3.0	$25,354	$6,127	$4,896	80%	2%	0.68	0.71	0.50	0.49			
282-2	Dis of Pancreas Exc Malig	1,227	4,907	$40,334,380	$9,433,912	4.0	4.1	$32,872	$7,689	$6,609	86%	2%	0.89	0.89	0.62	0.70			
045-2	CVA & Precereb Occl w Infarct	1,221	5,537	$50,277,990	$10,914,688	4.5	4.0	$41,178	$8,939	$5,712	64%	2%	1.11	1.04	0.72	0.84			
720-2	Septicemia & Disseminated Inf	1,191	6,598	$57,479,114	$12,716,615	5.5	4.5	$48,261	$10,677	$17,416	163%	5%	1.30	1.24	0.86	0.71			1
133-4	Pulmon Edema & Resp Failure	1,175	8,392	$114,031,279	$25,568,272	7.1	7.1	$97,048	$21,760	$17,785	82%	2%	2.61	2.53	1.76	1.97			
634-1	Neo, Bwt >2499G w Maj Resp Cond	1,165	30,436	$204,226,884	$44,176,471	26.1	4.5	$175,302	$37,920	$51,652	136%	4%	4.72	4.41	3.07	0.55			1
254-1	Oth Digestive Sys Diags	1,128	2,560	$22,163,002	$5,643,855	2.3	2.5	$19,648	$5,003	$6,811	136%	4%	0.53	0.58	0.40	0.46			1
053-3	Seizure	1,124	4,613	$43,371,869	$10,380,293	4.1	4.4	$38,587	$9,235	$10,358	112%	3%	1.04	1.07	0.75	0.85			1
639-1	Neo Bwt >2499G w Oth Sig Cond	1,121	10,841	$69,010,404	$17,157,475	9.7	3.7	$61,561	$15,306	$34,767	227%	7%	1.66	1.78	1.24	0.39			1
383-3	Cellulitis & Oth Bact Skin Inf	1,107	6,357	$47,639,864	$10,956,926	5.7	5.8	$43,035	$9,898	$8,553	86%	3%	1.16	1.15	0.80	0.85			
137-3	Maj Resp Inf & Inflammations	1,085	9,606	$85,933,154	$19,893,983	8.9	7.3	$79,201	$18,335	$24,092	131%	4%	2.13	2.13	1.48	1.26			1
053-1	Seizure	1,075	2,528	$21,755,675	$5,147,768	2.4	2.3	$20,238	$4,789	$4,542	95%	3%	0.54	0.56	0.39	0.47			
420-1	Diabetes	1,038	2,737	$18,278,076	$4,439,633	2.6	2.7	$17,609	$4,277	$3,038	71%	2%	0.47	0.50	0.35	0.39			
198-1	Angina Pect & Atherosclerosis	1,015	1,662	$19,232,098	$4,414,450	1.6	1.7	$18,948	$4,349	$2,924	67%	2%	0.51	0.51	0.35	0.42			
113-1	Inf of Upper Resp Tract	1,014	2,087	$13,277,237	$3,454,914	2.1	1.9	$13,094	$3,407	$4,526	133%	4%	0.35	0.40	0.28	0.27			1
201-2	Cardiac Arrhythmias	1,004	2,830	$28,967,498	$6,595,229	2.8	2.9	$28,852	$6,569	$5,449	83%	3%	0.78	0.76	0.53	0.54			
420-3	Diabetes	998	3,903	$38,318,512	$8,814,648	3.9	4.1	$38,395	$8,832	$7,321	83%	3%	1.03	1.03	0.71	0.73			
133-3	Pulmon Edema & Resp Failure	982	5,499	$63,072,009	$14,175,219	5.6	5.7	$64,228	$14,435	$18,863	131%	4%	1.73	1.68	1.17	1.03			1
812-2	Poisoning of Medicinal Agents	950	1,877	$19,072,569	$4,601,880	2.0	2.2	$20,076	$4,844	$3,231	67%	2%	0.54	0.56	0.39	0.41			
279-3	Hepatic Coma & Oth Maj Liver Dis	938	5,190	$45,351,470	$10,479,447	5.5	5.7	$48,349	$11,172	$10,950	98%	3%	1.30	1.30	0.90	1.06			
722-1	Fever	896	2,176	$13,225,831	$3,305,884	2.4	2.3	$14,761	$3,690	$2,382	65%	2%	0.40	0.43	0.30	0.33			
130-4	Resp Sys Diag w MV 96+ Hrs	878	20,146	$254,667,446	$57,615,744	22.9	17.4	$290,054	$65,622	$74,546	114%	4%	7.81	7.63	5.31	5.39			1
541-2	Vag Del w Ster &/or D&C	873	2,208	$20,536,777	$4,830,560	2.5	2.6	$23,524	$5,533	$3,461	63%	2%	0.63	0.64	0.45	0.53			
425-2	Electrolyte Dis Exc Hypovolemia	864	2,490	$21,085,644	$4,773,536	2.9	3.1	$24,405	$5,525	$5,000	90%	3%	0.66	0.64	0.45	0.50			
861-2	Signs, Symptoms & Oth Factors	858	3,549	$24,105,180	$5,773,162	4.1	3.5	$28,095	$6,729	$13,299	198%	7%	0.76	0.78	0.54	0.50			1
113-2	Inf of Upper Resp Tract	856	2,402	$17,305,224	$4,369,833	2.8	2.6	$20,216	$5,105	$3,982	78%	3%	0.54	0.59	0.41	0.41			
513-1	Uterine/Adnexa Procs Non-Malig	850	1,939	$27,599,163	$6,840,142	2.3	2.0	$32,470	$8,047	$4,116	51%	2%	0.87	0.94	0.65	0.72			
860-2	Rehabilitation	839	14,329	$71,296,605	$15,989,004	17.1	11.1	$84,978	$19,057	$14,329	75%	3%	2.29	2.22	1.54	0.95			
425-3	Electrolyte Dis Exc Hypovolemia	828	3,289	$30,982,827	$7,007,358	4.0	4.3	$37,419	$8,463	$7,057	83%	3%	1.01	0.98	0.68	0.72			
663-1	Oth Dis of Blood & Rel Organs	828	1,872	$15,099,520	$3,688,194	2.3	2.4	$18,236	$4,454	$4,343	98%	3%	0.49	0.52	0.36	0.45			
254-2	Oth Digestive Sys Diags	814	2,921	$23,727,162	$5,727,417	3.6	3.5	$29,149	$7,036	$6,608	94%	3%	0.78	0.82	0.57	0.62			
Top 75 APR-DRGs		**394,053**	**1,173,860**	**$7,891,828,205**	**$1,818,479,493**	**2.8**	**3.0**	**$20,027**	**$4,615**				**0.54**	**0.54**	**0.37**	**0.40**	**0.00**	**-**	**25**
All other APR-DRGs		**144,417**	**1,049,811**	**$12,105,423,734**	**$2,812,884,494**	**6.1**	**7.3**	**$83,823**	**$19,478**				**2.26**	**2.26**	**1.58**	**1.52**	**381**	**103**	**316**
All APR-DRGs		**538,470**	**2,223,671**	**$19,997,251,939**	**$4,631,363,987**	**3.7**	**4.1**	**$37,137**	**$8,601**				**1**	**1**	**0.70**	**0.70**	**381**	**103**	**341**

Notes:

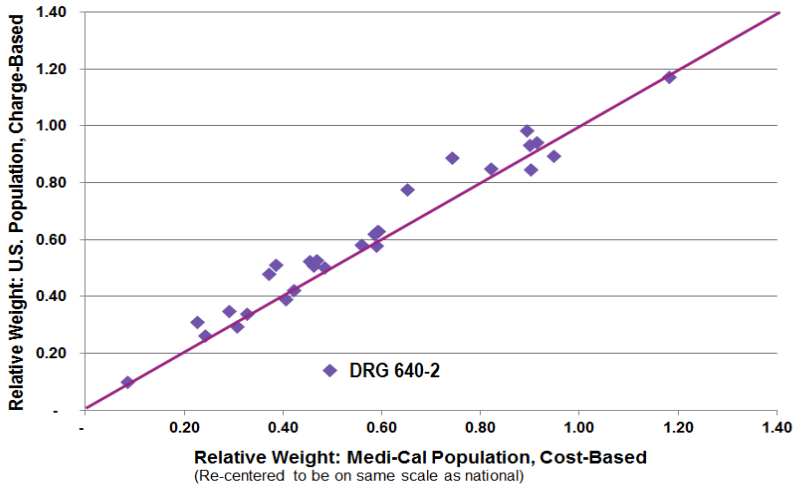
1 CV=coefficient of variation. RSE=relative standard error

As shown in Chart 2.5.1, there is a very high degree of correlation (r=0.984) between the two sets of weights for the 30 most common DRGs, which account for 63 percent of all stays.[25] The notable exception – APR-DRG 640-2 for a normal newborn, severity 2 – stems from anomalous stays in the analytical dataset.[26] For this APR-DRG, the national weight would in fact be more appropriate than the Medi-Cal calculated weight. This degree of correlation extends to other, less common DRGs, as shown in Table 2.5.1 (r=0.851 for all DRGs). This finding echoes our findings from Medicaid data in other states. In fact, it's stronger than in other states we have examined, probably because California's size gives it disproportionate weight among the 44 states upon which the Nationwide Inpatient Sample is based. In Mississippi, Montana, North Dakota, Rhode Island and South Carolina, Medicaid chose to use national weights and save itself the effort of recalibrating weights every year. New York Medicaid, on the other hand, is an example of a state that chose to calculate its own APR-DRG relative weights. Pennsylvania adopted New York weights.

Because the national weights do fit the Medi-Cal data well, we recommended and DHCS decided to simply adopt the updated relative weights whenever a new grouper version is installed.

Throughout the rest of this report, the terms "relative weight" and "casemix" may be used interchangeably. For convenience, we usually use "relative weight" when referring to payment calculation and "casemix" when referring to average patient severity. For example, we say that the one DRG has a higher relative weight than another DRG, but that one hospital has a higher casemix than another hospital.

Chart 2.5.1
Comparison of National and Medi-Cal Weights, Top 30 DRGs by Volume



To improve clarity, APR-DRG 720-4 is not shown. Its relative weights are 2.79 national and 2.73 California

2.6 Policy Adjustor Functionality

While the relative weights are calculated purely from the data, policy adjustors can be used to explicitly increase or decrease payment weights for certain care categories or for a range of DRGs in order to meet policy goals. The rationale is essentially that the Medicaid program may choose to focus its scarce funds in the clinical areas where Medicaid funding makes the most difference to beneficiary access.[27] By making the policy adjustor explicit, the internal consistency of the set of relative weights is maintained. The calculation formula (including the age adjustor to be discussed in Section 2.7) is:

(2.6.1) CASEMIX RELATIVE WEIGHT X POLICY ADJUSTOR X AGE ADJUSTOR = PAYMENT RELATIVE WEIGHT

Because this payment method may be in place for many years (Section 1.2), we recommended that policy adjustor functionality be included in the MMIS design even if policy adjustors are not immediately used (i.e., the values are all set at 1.00). We also recommended that separate MMIS fields be created for the casemix relative weight and the payment relative weight, for purposes of documentation.

If DHCS decides to use policy adjustors in the future, we recommended that policy adjustors be few in number, apply to entire Medicaid Care Categories, and be initiated for compelling policy reasons, e.g., to enable access for care where Medicaid payment levels can have substantial impact. We recommended against tinkering with relative weights for individual APR-DRGs.

The value of the policy adjustor is typically calculated on a spreadsheet as part of a payment method simulation based on one year's worth of data. Policy adjustors are generally intended to be budget neutral; that is, if a policy adjustor increases payment for a certain category of cases then the DRG base price should be adjusted, so that the overall impact is budget neutral.

Effective with the DRG payment method on July 1, 2013, DHCS implemented policy adjustors for neonate DRGs:

- Neonate DRGs at designated NICU hospitals: 1.75
- Neonate DRGs at all other hospitals: 1.25

2.7 Age Adjustor Functionality

An age adjustor is parallel in structure and purpose to a policy adjustor, except that application of the policy adjustor depends on the specific DRG while application of the age adjustor depends on the age of the patient. In the interest of maintaining policy flexibility for coming years, we recommended that the CA-MMIS DRG table include an "age adjustor" field. This structure would enable the age adjustor to have different values by DRG, although we do not recommend that level of specificity.

We note that the APR-DRG structure already takes some account of the age of the patient, either through the base APR-DRG (e.g., creation of a separate DRG for bronchiolitis and RSV pneumonia, which are prevalent in young children) or through the severity of illness assignment. A Medicaid program's use of an age adjustor, therefore, represents an explicit decision to direct funding to a particular group of patients who are otherwise similar clinically.

As with the policy adjustor, we recommended that use of the age adjustor be limited to a few broad and important situations. For example, the Rhode Island Medicaid program uses an age adjustor to boost payment for pediatric patients whose stays group to a mental health APR-DRG. A single policy adjustor value applies to all mental health DRGs. In the interest of both policy and MMIS simplicity, we also recommended that there be a single definition of age as defined in the MMIS by a parameter (e.g., age under 18, 19, 20, or 21). Initially, the age adjustor will be set to apply to patients under 21.

Like policy adjustors, an age adjustor is generally intended to be budget neutral.

Effective with the DRG payment method on July 1, 2013, DHCS implemented an age adjustor of 1.25 to be applied to pediatric-miscellaneous and pediatric-respiratory services, based on the Medicaid care categories.

2.8 Updating Relative Weights and Policy Adjustors

We recommend that relative weights be updated whenever the DRG grouper is updated. This is essentially a technical exercise since relative weights are calculated from data and are not a policy choice. Although relative weights are calibrated at the national level to average out to 1.00, it is important for a Medicaid program to confirm the expected impact on its own data. This is typically done by taking a list such as Table 2.5.1, calculating the overall average relative weight, using the previous set of weights, and then recalculating the overall average relative weight using the new set of weights. A technical, offsetting correction can be made to either the relative weights or the DRG base price so that the net impact is budget neutral. For example, consider the situation where the DRG base price was $6,000 and the average casemix of a one-year dataset under the old DRG version is 0.65. If casemix for the same dataset were, say, 0.67 under the new DRG version, then payments would rise by 3 percent simply because of the change in DRG version. To offset this impact, either the base price could be lowered by 3 percent or each relative weight could be lowered by 3 percent. In any case, the goal is that any change in overall payments stem from an explicit policy choice, not from an update of relative weights. The chief challenge in performing such an update tends to be communication: the decrease in the DRG base price or the relative weights may be interpreted as a payment reduction, when in fact it is simply technical correction to maintain budget neutrality. The same considerations, of course, would justify an increase in the DRG base price or the set of relative weights if a DRG version change were to result in decreased total payment.

If the APR-DRG grouper version has few changes (Section 2.3), then it is probably unnecessary to re-group the claims. If there have been substantial changes in the DRG structure, then it may be necessary to perform a claim-level analysis. The annual APR-DRG documentation from 3M describes the extent of the changes made each year.

If policy adjustors or age adjustors are used, we recommend that they be reviewed annually to determine whether they remain appropriate. See also Section 6.5 regarding policy update and file maintenance tasks.

On a related note, the growing use of APR-DRG payment methods by states will tempt analysts into simply comparing DRG base prices across states. This comparison would usually be invalid, because the fee-for-service programs serve different populations and have different rules on policy adjustors, wage area adjustments, etc. If DHCS wanted to compare its rates to those of New York, Texas, Montana or South Carolina, for example, a more valid approach would be to create a weighted average of payment rates for common APR-DRGs, taking into account any applicable policy adjustors and age adjustors.

3 DRG Base Price

3.1 DRG Base Price

The DRG Base Price is the single most important number in a DRG payment method. When multiplied by the DRG relative weight, the result is the DRG base payment. For APR-DRG 139-1, pneumonia, the DRG base payment would be 0.3886 x $5,000 = $1,943 or 0.3886 x $7,000 = $2,720 depending on whether the base price were $5,000 or $7,000. As the example makes clear, the DRG base price is the single most important determinant of the overall payment level.

Some states use a single statewide base price for all hospitals, which certainly has the advantage of simplicity. But the size and diversity of California led us to recommend variation by hospital in two ways:

- ***Wage areas***. As Medicare does, hospitals in different geographic areas would receive different base prices in order to reflect prevailing wage levels. See Section 3.3.

- ***Remote rural hospitals.*** Hospitals defined as remote rural hospitals would receive a higher DRG base price than they otherwise would have, in order to protect access to care. See Section 3.4.

The DRG base price is also an appropriate route for adjusting payments in anticipation of improvements in documentation, coding and capture of diagnosis and procedure codes. We recommended a 3.5 percent adjustment to the DRG base price, to be made within the context of a “casemix corridor” that protects both the hospitals and the Medi-Cal program against unanticipated changes in casemix. See Section 3.5.

Because implementation of DRG payment, though budget-neutral overall, is likely to result in significant increases or decreases in payment for individual hospitals, DHCS implemented a three-year transition period in which hospital-specific base prices are set with the goal that payment in the first year would not increase or decrease by more than 5 percent relative to estimates of what it would have been in FY 2013-14 under the previous payment method. In the second year, the target change would be plus or minus 5 percent compared with the first year. In the third year, the target change would be plus or minus 5 percent relative to the second year. Full implementation at the statewide base price will occur in year four. See Section 3.6.

3.2 Budget Target

Implementation of DRG payment is intended to be budget-neutral, by statute.[28] Simulations were done using CY 2009 utilization and payment data, trending forward CY 2009 rates to July 1, 2013. Actual payments in FY 2013-14 will depend on the number of stays, the average casemix per stay and DHCS decisions on the DRG base price and other payment policy parameters. We note that the simulation dataset was further refined into the ratesetting dataset in order to implement the policy decisions described in this updated Policy Design Document. Details on the ratesetting dataset are included in a separate report, *Medi-Cal DRG Project: Hospital-Specific Base Prices for Implementation July 1, 2013.*

3.3 Variations in the DRG Base Price by Wage Areas

Medicare varies its DRG base price ("standardized amount") by hospital depending on the local wage area index. For DRG payment, some states use the Medicare wage areas while others use a single statewide base price. Table 3.3.1 shows the Medicare hospital wage area indices for California for federal fiscal year 2012. The values are intended to reflect the differentials in the local market wages for clinical staff that hospitals employ. The range in California is 42 percent, that is, nursing wage levels in the Santa Cruz area (1.6996) are 42 percent higher than in San Diego, Riverside, Chico, Bakersfield, Fresno and other areas where the index value is 1.1950.[29]

Differences in the wage index values affect only part of a DRG base price. For California, Medicare uses an estimate that wages account for 68.8 percent of hospital cost.[30] For example, if the DRG base price were $6,000 then a hospital in Bakersfield would be paid [(68.8 percent x $6,000 x 1.1950) + (31.2 percent x $6,000] = $6,805 while a hospital in Santa Cruz would be paid [(68.8 percent x $6,000 x 1.6996) + (31.2 percent x $6,000] = $8,888.[31] As the example makes clear, use of a wage area is necessarily redistributive among hospitals. As a matter of arithmetic, the fact that 77 percent of all stays are concentrated in the three main Southern California areas with a wage index of approximately 1.20 means that a decision on use of wage areas would have only a minor impact on Southern California hospitals. The decision would have more impact on hospitals in higher-wage areas, such as the Bay Area and Silicon Valley.

At the national level, the principle of varying the base price to reflect differences in local wage levels is very well accepted. The mechanics, however, are another story. There has been a lot of controversy, which is well summarized in an Institute of Medicine report.[32] One concern has been that the wage areas have sharply defined boundaries, so the base price can vary substantially for two hospitals physically close to one another. This has led many hospitals to appeal to Medicare to be reclassified into an adjoining wage area; there also have been various "ad hoc legislative changes" benefiting particular hospitals.[33] Nationwide, almost 40 percent of hospitals have been reclassified, raising obvious questions about accuracy, consistency and fairness.

Box 3.3.1

Alternative Proposals Using Hospital-Specific Wage Index Values

In consultations with hospitals, two options in particular were raised as alternatives to what we recommended here. Those alternatives were as follows.

- ***Use of hospital-specific wage data.***[1] As a general statement (but with the exceptions such as the out-migration adjustment), Medicare uses the same wage index value for all hospitals within a given wage area. Table 3.3.1 shows the FY 2012 values. Note, for example, that the Los Angeles-Long Beach-Glendale wage area includes 90 hospitals. In calculating the index value, CMS blends together hospitals with widely varying average hourly wages, from $26.82 to $52.55 in this example.[1] In general, larger hospitals have higher hourly wages. This is true even after adjustment for differences in occupational mix. However, the occupational mix adjustment is relatively crude, taking into account only the broad categories of registered nurses, licensed practical nurses (LPNs), medical technologists, and aides. It also uses national weights that do not take into account California's mandated nurse-to-patient ratios and limits on scope of practice. Wage differences between (for example) entry-level medical floor nurses and multi-credentialed ICU nurses are not taken into account. In principle, the casemix measurement inherent in DRG payment reflects the higher costs of nursing care for sicker patients. However, hospitals with high average hourly wages say that they often compete for specialized staff at the statewide or even the national level. To reflect these factors more accurately, a proposal was made that DHCS use wage index values by hospital rather than by wage area. The hospital-specific values can be calculated from data available from CMS.

  A chief reason why Medicare does not use hospital-specific wage index values is that they can be circular: a hospital with high wages will then receive higher payment. Medicare's large share of the hospital market means that this risk is real and present. Even Medi-Cal fee-for-service, with its smaller share of the overall market, would have to be concerned about the cost-increasing incentives created for hospitals with high Medi-Cal utilization. We are also concerned about potential problems regarding missing data for some hospitals (including children's hospitals and Medicare critical access hospitals) and anomalies in year-to-year hospital-specific wage data.

- ***Use of a California-specific labor-related share percentage.*** Medicare currently uses a figure of 68.8 percent as the labor-related share of hospital costs nationwide. (By law, the value cannot exceed 62 percent for hospitals with wage area index values under 1.00, but no California hospital is affected.) The value of 68.8 percent was set by CMS effective October 1, 2009, based on labor-related costs in the hospital market basket. CMS reviews the figure each year in the inpatient hospital final rule.[1] [1]

  A proposal was made that DHCS should instead use California-specific data available from OSHPD. The agency's most recent compilation of hospital financial data shows that wages and benefits account for 57.6 percent of hospital industry costs statewide.[1] Although using local data has appeal, in the interest of consistency we recommended following the Medicare method in its entirety.

We recommended that DHCS apply wage area differentials in setting the DRG base price. Although use of wage area differentials might not be appropriate in smaller states with more homogenous labor markets, we believe that California is sufficiently large and diverse that differential base prices would improve fairness by recognizing local-area wage differences that are outside a hospital's control. In putting this policy into operation, DHCS adopted the Medicare method. That is, DHCS adopted the wage area boundaries, wage area index values and the 68.8 percent labor share figure from Medicare. DHCS also used the Medicare assignments of hospitals to specific wage areas, including reclassifications of hospitals into adjacent wage areas, with the same hospital-specific adjustments that Medicare makes (e.g., the outmigration adjustment). For hospitals within the scope of the Medicare Inpatient Prospective Payment System, these hospital-specific adjustments are available in the annual "impact file" made available on the CMS website.[34] For California hospitals not listed in the Medicare impact file, DHCS used the wage area index value for the hospital's physical location.[35]

For out-of-state hospitals, DHCS used Medicare's national wage index value, that is, 1.00. In general, wage areas within the border states are close to 1.00. For FFY 2012, in Nevada (855 Medi-Cal stays), the range of index values is 1.0000 to 1.1635. In Arizona (581 stays), the range is 0.8770 to 1.2308. In Oregon (396 stays), it is 1.0273 to 1.1391. In other states (319 stays), the average wage area by definition is approximately 1.00. For all out-of-state stays, the DRG payment will mean that hospitals get paid more for sicker patients, a key element in ensuring access and being fair to hospitals.[36]

Although the details of the Medicare method are open to debate, we recommended against DHCS trying to develop its own wage area differential policy. Quite simply, developing a California-specific methodology likely would be as expensive, time-consuming, and contentious as developing a new national policy. We did recommend that DHCS monitor developments in Medicare's wage area policy going forward. For example, the Department of Health and Human Services has just sent a report to Congress describing the benefits of a Commuting Based Wage Index, but noting that its implementation would require statutory changes, regulatory changes and new data collection efforts.[37]

Table 3.3.1

Medicare Wage Areas in California

Wage Area	FFY 2012 Medicare Wage Index Values	CY 2009 Medi Cal Stays	% of All Stays
Out of state	1.0000	1,520	0%
Bakersfield-Delano	1.1950	7,049	2%
California (Rural)	1.1950	10,754	2%
Chico	1.1950	7,857	2%
El Centro	1.1950	5,847	1%
Fresno	1.1950	11,068	2%
Hanford-Corcoran	1.1950	3,470	1%
Madera-Chowchilla	1.1950	7,730	2%
Riverside-San Bernardino-Ontario	1.1950	23,696	5%
San Diego-Carlsbad-San Marcos	1.1950	33,761	8%
Santa Ana-Anaheim-Irvine	1.1950	31,686	7%
Visalia-Porterville	1.1950	7,324	2%
Yuba City	1.1950	4,853	1%
Santa Barbara-Santa Maria-Goleta	1.1956	5,203	1%
Los Angeles-Long Beach-Glendale	1.2098	183,276	41%
Merced	1.2099	2,414	1%
San Luis Obispo-Paso Robles	1.2446	1,410	0%
Modesto	1.2480	5,455	1%
Oxnard-Thousand Oaks-Ventura	1.2927	4,295	1%
Stockton	1.3012	8,423	2%
Sacramento-Arden-Arcade-Roseville	1.3318	16,712	4%
Vallejo-Fairfield	1.4140	5,499	1%
Napa	1.4254	0	0%
Redding	1.4757	8,814	2%
Oakland-Fremont-Hayward	1.5498	8,188	2%
SF-San Mateo-Redwood City	1.5429	4,157	1%
Santa Rosa-Petaluma	1.5634	7,013	2%
Salinas	1.5650	1,108	0%
San Jose-Sunnyvale-Santa Clara	1.6438	25,338	6%
Santa Cruz-Watsonville	1.6996	2,795	1%
Total		**446,715**	**100%**

Notes:

1. Total stays refer to the simulation baseline dataset, used during the policy design of the payment method. See the separate report *Medi-Cal DRG Project: Hospital-Specific Base Prices for Implementation July 1, 2013* for refinements made for purposes of ratesetting.
2. Stays by wage area refer to the hospital's physical location, not necessarily the wage area assigned to the hospital by Medicare.
3. Source for the FFY 2012 wage area index levels is www.cms.hhs.gov/AcuteInpatientPPS/01_overview.asp, and then choose Table 4A under "Acute Inpatient--Files for Download."
4. The wage index is the Medicare wage index associated with the wage area. The wage index may differ for some hospitals in a given wage area due to Medicare adjustments at the hospital-specific level.
5. Data exclude designated public hospitals and include non-designated public hospitals (which were excluded from the dataset used to set the DRG base prices for July 1, 2013). NDPHs will transition to DRG payment starting with admissions beginning on January 1, 2014.

3.4 Variations in the DRG Base Price by Hospital Characteristics

3.4.1 Overview

In addition to wage area, it is also possible to vary payment by hospital depending on peer group definitions. Medicare currently or in the past has had special payment provisions for approved teaching hospitals, disproportionate share hospitals, hospitals in frontier states, children's hospitals, cancer hospitals, critical access hospitals, rural referral centers, sole community hospitals, essential access community hospitals, Medicare-dependent small rural hospitals, and low-volume discharge hospitals.[38] Since Medicare is so well-known, it may be instructive to review the driving factors behind most of these Medicare provisions.

- ***Grouper appropriateness.*** When Medicare implemented prospective payment in 1983, the CMS-DRG grouping algorithm was much less sophisticated than DRG versions developed afterward. In particular, CMS-DRGs did not adequately reflect the cost to hospitals of the most medically complex patients. Because many of these patients were treated at teaching hospitals, an adjustment for "indirect medical education" cost was added. Similar reasoning led to the exclusion of cancer hospitals from the prospective payment system. As well, since Medicare focused on the Medicare population, relatively little effort was put into making CMS-DRGs appropriate for children with complex medical conditions. Excluding children's hospitals from CMS-DRG payment was an obvious decision for Medicare.

- ***Concerns over patient access.*** With Medicare representing about 40 percent of inpatient stays and about 50 percent of hospital inpatient revenue nationwide, the federal program has always been sensitive to the impact its rates can have on the financial viability of hospitals. This sensitivity has been particularly acute in rural areas, where closure of the local hospital could put access barriers in front of Medicare beneficiaries. These hospitals are typically, but not necessarily, small in terms of bed size.

- ***Targeted provisions.*** In every Congress, numerous bills would tweak the definitions used in the Medicare prospective payment system, typically with the intention of increasing payment to a specific subset of hospitals. One criterion for rural referral center designation, for example, is to be a rural osteopathic hospital with at least 3,000 discharges. The provisions that are enacted are not always easily integrated into existing law, which helps explain the web of overlapping definitions listed above.

In light of almost 30 years of Medicare precedent as summarized above, what should the Medi-Cal program do? First, we recommended reliance on the policymaking principles listed in Section 1.3. For present purposes, the most pertinent are access, efficiency, reducing administrative burden, and simplicity. Second, we posed the question: Why do Medicaid programs make payments to hospitals? Our answer, as argued more fully elsewhere,[39] is to enable access to quality care. Oftentimes, enabling access for beneficiaries also means providing financial support for hospitals. Nevertheless, we

recommended a focus on access from the beneficiary's perspective, not on need for revenue from the hospital's perspective. In any case, fee-for-service Medi-Cal is expected to account for only about 12 percent of California hospital discharges and a lower percentage of inpatient revenue,[40] which limits the program's power to support the financial viability of hospitals even if this were an explicit policy goal. We also note that DHCS makes substantial supplementary payments to support hospitals that serve a disproportionate share of Medi-Cal and uninsured patients.

From the beneficiary's perspective, access issues are typically split into those related to type of care and those related to geographic location. With regard to level of care, the situation today is much less problematic than what faced Medicare in 1983. This progress reflects improvements in hospital diagnosis and procedure coding and in DRG grouping. Between 1983 and 2007, Medicare continually sought to improve the accuracy of CMS-DRGs. In 2007, Medicare replaced CMS-DRGs with MS-DRGs in order to more accurately pay for medically complex patients, such as those treated by teaching hospitals and other large, urban medical centers. APR-DRGs represent an improvement over MS-DRGs even for a Medicare population and were specifically designed by 3M Health Information Systems and the National Association of Children's Hospitals and Related Institutions to apply to obstetric, newborn and pediatric patients, including newborns and children with complex medical conditions (Section 2.2).

We did not see an access issue in terms of type of care that would justify special payment provisions (e.g., a higher DRG base price or exclusion from DRG payment altogether) for any subset of hospitals, with one exception. The exception is that hospitals with designated neonatal intensive care units (NICUs) receive a higher policy adjustor on sick baby stays than other hospitals. (See Table 3.4.1.1) DHCS has defined a designated NICU as a NICU certified by the California Children's Services program for neonatal surgery. The DHCS goal is to help ensure the continued financial viability of these units.

Access in geographic terms was a less straightforward question. For beneficiaries, access to a local hospital is not only a matter of convenience but also of health, most obviously in an emergency but also in terms of facilitating regular and coordinated care. In keeping with our focus on the beneficiary's perspective, we emphasize distance between hospitals as a measure of access, regardless of hospital size. In practice, rural hospitals tend to be small hospitals, but if a hospital happens to have more than 25 or 50 beds we believe it should still qualify for additional payment if it enables access for rural residents. We also see considerable benefit in avoiding the confusion and complexity of the Medicare distinctions between critical access hospitals, Medicare-dependent hospitals, rural referral centers, etc.

Table 3.4.1.1

Hospitals with Designated Neonatal Intensive Care Units

Hospital	City	County	Bed Size	Wage Area	Children's Hospital
Child Hosp & Rsrch Ctr	Oakland	Alameda	100-199	Oakland-Fremont-Hayward	Y
Child Hosp-Ctrl CA	Madera	Madera	200+	Madera-Chowchilla	Y
Child Hosp-LA	Los Angeles	Los Angeles	200+	L.A.-Long Beach-Glendale	Y
Child Hosp-Orange Co	Orange	Orange	200+	Santa Ana-Anaheim-Irvine	Y
E & L Miller Child Hosp	Long Beach	Los Angeles	200+	L.A.-Long Beach-Glendale	Y
Loma Linda Univ Med Ctr	Loma Linda	Sn Bernardino	200+	L.A.-Long Beach-Glendale	Y
LSPackard Child H-Stanford	Palo Alto	Santa Clara	200+	San Jose-Sunnyvale-Sta Clara	Y
Rady Child Hosp-San Diego	San Diego	San Diego	200+	S.D.-Carlsbad-San Marcos	Y
CA Hosp Med Ctr-LA	Los Angeles	Los Angeles	200+	L.A.-Long Beach-Glendale	N
CA Pacific Med Ctr-Pacific	San Francisco	San Francisco	200+	S.F.-San Mateo-Redwood City	N
Cedars Sinai Med Ctr	Los Angeles	Los Angeles	200+	L.A.-Long Beach-Glendale	N
Citrus Vly Med Ctr-QV	West Covina	Los Angeles	200+	L.A.-Long Beach-Glendale	N
Good Samaritan - LA	Los Angeles	Los Angeles	200+	L.A.-Long Beach-Glendale	N
Good Samaritan-San Jose	San Jose	Santa Clara	200+	San Jose-Sunnyvale-Sta Clara	N
Huntington Mem Hosp	Pasadena	Los Angeles	200+	L.A.-Long Beach-Glendale	N
KAISER -Oakland	Oakland	Alameda	200+	San Jose-Sunnyvale-Sta Clara	N
Pomona Vly Hosp Med Ctr	Pomona	Los Angeles	200+	L.A.-Long Beach-Glendale	N
Providence Tarzana	Tarzana	Los Angeles	200+	L.A.-Long Beach-Glendale	N
Santa Barbara Cottage Hosp	Santa Barbara	Santa Barbara	200+	Sta Barbara-Sta Maria-Goleta	N
Sutter Gen Hosp	Sacramento	Sacramento	200+	Vallejo-Fairfield	N
Designated NICU hospitals					12
Designated NICU children's hospitals					8
All designated NICU hospitals (DRG definition)					**20**

Notes:

1. Hospitals are included in this table if they meet the DHCS definition of designated NICU hospital and had stays in the simulation baseline dataset. All statutorily defined children's hospitals fell within the DHCS definition.
2. Table is based on the simulation baseline dataset, used during the policy design of the payment method. See the separate report *Medi-Cal DRG Project: Hospital-Specific Base Prices for Implementation July 1, 2013* for refinements made for purposes of ratesetting.
3. Assignment of hospitals to the list of hospitals with DHCS-designated neonatal intensive care units was finalized at the end of January 2013 for purposes of ratesetting and implementation of the DRG payment method. During the ratesetting phase, Kaiser-Roseville was added to the list of DHCS-designated NICU hospitals. See the Medi-Cal DRG calculator for a complete list of hospitals.
4. Data exclude designated public hospitals.

3.4.2 Remote Rural Hospitals

There are several ways to define rural, with one option being “non-urban,” that is, outside a metropolitan statistical area. Another option is the definition used by OSHPD. But our focus is on access in terms of remoteness. Beneficiaries in rural areas may have good access to hospitals in adjacent urban areas, for example. Similarly, a rural area could contain two hospitals close to each other. In both situations, rural residents would not face an obvious access issue. We therefore focus on distance between a rural hospital and the next closest hospital as the best measure of the extent to which rural residents rely on a particular hospital.

We used a criterion that a rural hospital is first considered a rural hospital based on the OSHPD list for defining rural hospitals and be at least 15 miles from another hospital that has at least a basic level emergency room to be considered a “remote rural hospital” for purposes of the DRG payment method. Although any chosen number could obviously be lower or higher, we have chosen to use a definition on the inclusive end of the range (that is, more hospitals are likely to be included in the definition and therefore receive the higher payment level). Medicare uses 35 miles in defining critical access hospitals (or 15 miles in mountainous terrain or areas without primary roads); 15 or 25 miles in defining rural low-volume discharge hospitals; and 25 or 35 miles in defining sole community hospitals. In selecting 15 miles, we are essentially saying that a desirable density of hospitals would be no more than 15 miles apart. (Actual density, of course, depends on where hospitals have been built.)

Table 3.4.2.1 shows the rural hospitals, stays, and estimated hospital cost of care that would fall under the definition of rural hospitals, sorted by driving distance so that hospitals defined as remote rural hospitals are easily identifiable. (The numbers refer to actual Medi-Cal fee-for-service stays in 2009, except for a very small number of stays that are modeled as being transitioned to managed care by 2013.) We note that every Medicare critical access hospital (CAH) would fall into our definition, as would some hospitals that are too large to meet the Medicare CAH criteria but are nevertheless at least 15 miles away from the closest hospital.

The next question was what special payment provision should apply to remote rural hospitals, as defined. Medicare, most notably, pays critical access hospitals 101 percent of allowed cost. Instead, for Medi-Cal services provided at those Medicare designated critical access hospitals, we recommended payment by DRG. One reason is that the California Legislature explicitly included Medicare critical access hospitals within the scope of DRG payment;[41] the extension of legislative intent to our (overlapping) definition of remote rural hospitals is obvious. As well, the fundamental incentive to hospitals of cost reimbursement is to increase cost. This is a problematic payment policy for a method expected to be in place for 10, 20 or more years. Instead, we recommended that rural hospitals that can reduce their costs be rewarded with the increased margins that result from the fact that DRG payments are not tied to hospital-specific charges or cost.

DHCS adopted a payment policy so that remote rural hospitals receive a higher DRG base price than other hospitals. The base price was set to hit a specified percentage of cost for the remote rural hospitals as a group (not for each hospital). DHCS used 95 percent of cost; although it would not cover the full cost of care for this group, it would be notably higher than the pay-to-cost ratio of approximately 77 percent (excluding supplemental payments) that applied to hospitals in CY 2009.[42]

In terms of the mechanics of payment, the CA-MMIS functionality would include a DRG base price as a field on the provider master file. In principle, this functionality would

enable hospital-specific base prices for every hospital that serves Medi-Cal. Although that is not the intention, the flexibility will easily accommodate changes in hospital-specific base prices that stem from changes in wage areas, rural designation, or transition considerations. Hospital-specific base prices are calculated outside the MMIS and then loaded into the hospital table. For remote rural hospitals, the base price reflects first the wage area value (which equals 1.1950 for rural California as of October 2011[43]) times whatever hospital DRG base price would yield estimated payment equal to the target percentage of cost for the group of remote rural hospitals overall. Not all rural hospitals are in the “rural” wage area. Those that are in the “urban” wage areas would be paid using the applicable urban wage index.

Medi-Cal has defined a remote rural hospital as:

- A hospital is first considered a rural hospital based on the OSHPD list for defining rural hospitals.
- A remote rural hospital that is at least 15 miles in driving distance from the nearest general acute care hospital that has at least a basic level emergency room.
- Rural hospitals that operate under a combined license with a non-remote rural hospital and that bill under one National Provider Identifier would not be considered remote rural hospitals.

Table 3.4.2.1 Rural Hospitals								
Hospital	City	County	Hosp Bed Size	Wage Area	Driving Distance	CAH	Stays	Est Hosp Cost
Surprise Vly Com Hosp	Cedarville	Modoc	<50	California (Rural)	150	Y	1	$1,346
Modoc Med Ctr	Alturas	Modoc	<50	California (Rural)	129	Y	49	$260,930
Colorado Riv Med Ctr	Needles	Sn Bernardino	<50	Riverside-Sn Bernardino-Ontario	97	Y	43	$428,328
Mayers Mem Hosp	Fall River Mills	Shasta	<50	Redding	95	Y	164	$693,445
Palo Verde Hosp	Blythe	Riverside	50-99	Riverside-Sn Bernardino-Ontario	91	N	431	$2,662,700
Sutter Coast Hosp	Crescent City	Del Norte	50-99	California (Rural)	76	N	738	$4,978,593
Kern Vly Hlthcare Dist	Lake Isabella	Kern	<50	Bakersfield- Delano	72	Y	27	$127,570
Southern Inyo Hosp	Lone Pine	Inyo	<50	California (Rural)	58	Y	0	$0
Ridgecrest Reg Hosp	Ridgecrest	Kern	50-99	Bakersfield- Delano	54	N	758	$3,362,159
JPhelps Com Hosp-Humb	Garberville	Humboldt	<50	California (Rural)	49	Y	12	$120,528
George L Mee Mem Hosp	King City	Monterey	100-199	Salinas	47	N	867	$4,306,978
Seneca Hlthcare Dist	Chester	Plumas	<50	California (Rural)	47	Y	25	$137,113
Coalinga Reg Med Ctr	Coalinga	Fresno	<50	Fresno	46	N	38	$171,069
Trinity Hosp	Weaverville	Trinity	<50	California (Rural)	44	Y	60	$693,204
Barton Mem Hosp	So Lake Tahoe	El Dorado	50-99	California (Rural)	42	N	709	$4,740,892
Mammoth Hosp	Mammoth Lks	Mono	<50	California (Rural)	42	Y	165	$2,113,943
Northern Inyo Hosp	Bishop	Inyo	<50	California (Rural)	41	Y	378	$3,590,278
Mem Hosp Los Banos	Los Banos	Merced	<50	California (Rural)	41	N	636	$2,673,769
JCFremont Hlthcare Dist	Mariposa	Mariposa	<50	California (Rural)	40	Y	34	$132,956
Banner Lassen Med Ctr	Susanville	Lassen	<50	California (Rural)	39	Y	557	$3,402,527
Colusa Reg Med Ctr	Colusa	Colusa	<50	California (Rural)	39	N	594	$2,127,681
Tahoe Forest Hosp	Truckee	Nevada	<50	California (Rural)	39	Y	467	$3,750,293
Tehachapi Hosp	Tehachapi	Kern	<50	Bakersfield- Delano	39	Y	16	$136,958
Hi-Desert Med Ctr	Joshua Tree	Sn Bernardino	50-99	L.A.-Long Beach-Glendale	38	N	968	$3,632,476
Fairchild Med Ctr	Yreka	Siskiyou	<50	California (Rural)	37	Y	592	$4,155,113
Mercy Med Ctr-Mt Shasta	Mount Shasta	Siskiyou	<50	California (Rural)	37	Y	351	$1,941,436
Glenn Med Ctr	Willows	Glenn	<50	California (Rural)	35	Y	50	$435,523
St Elizabeth Com Hosp	Red Bluff	Tehama	50-99	Redding	35	N	1,466	$5,886,852
Mendocino Coast Dist	Fort Bragg	Mendocino	<50	California (Rural)	35	Y	225	$999,028
Plumas Dist Hosp	Quincy	Plumas	<50	California (Rural)	34	Y	150	$601,113
Barstow Com Hosp	Barstow	San Bernardino	50-99	Riverside-Sn Bernardino-Ontario	33	N	629	$2,751,337
Ukiah Vly Med Ctr-Hosp Dr	Ukiah	Mendocino	50-99	Sta Rosa-Petaluma	31	N	880	$4,141,672

Table 3.4.2.1 Rural Hospitals								
Hospital	**City**	**County**	**Hosp Bed Size**	**Wage Area**	**Driving Distance**	**CAH**	**Stays**	**Est Hosp Cost**
Lompoc Hlthcare Dist	Lompoc	Santa Barbara	50-99	Sta Barbara-Sta Maria-Goleta	31	N	184	$712,680
Sutter Lakeside Hosp	Lakeport	Lake	<50	California (Rural)	31	Y	661	$5,371,766
Sonora RegMedCtr-Grnley	Sonora	Tuolumne	50-99	Modesto	29	N	926	$6,306,798
St Helena Hosp-Clearlake	Clearlake	Lake	<50	California (Rural)	29	Y	750	$5,610,606
Bear Valley Com Hosp	Big Bear Lake	San Bernardino	<50	California (Rural)	28	N	21	$99,417
Catalina Is Med Ctr	Avalon	Los Angeles	<50	Los Angeles-Long Beach-Glendale	28	Y	0	$0
Eastrn Plumas Hosp-Portola	Portola	Plumas	<50	California Rural)	28	Y	60	$295,050
Sierra Kings Dist Hosp	Reedley	Fresno	<50	California (Rural)	25	N	1,512	$2,641,092
Sierra Nevada Mem Hosp	Grass Valley	Nevada	100-199	SAC-Arden-Arcade-Roseville	24	N	976	$6,440,904
Mountains Com Hosp	Lk Arrowhead	San Bernardino	<50	Riverside-Sn Bernardino-Ontario	24	Y	134	$580,882
Twin Cities Com Hosp	Templeton	San Luis Obisp	100-199	Sn Luis Obispo-Paso Robles	23	N	564	$2,708,408
Marshall Med Ctr	Placerville	El Dorado	50-99	SAC-Arden-Arcade-Roseville	23	N	1,231	$8,630,857
Advent Med Ctr–Hnfrd	Hanford	Kings	100-199	Hanford-Corcoran	22	N	1710	$7,332,602
Frank R Howard Mem	Willits	Mendocino	<50	Sta Rosa-Petaluma	22	Y	49	$758,333
Redwood Mem Hosp	Fortuna	Humboldt	<50	California (Rural)	21	Y	657	$3,040,619
Sta Ynez Vly Cttge Hosp	Solvang	Sta Barbara	<50	Sta Barbara-Sta Maria-Goleta	21	Y	0	$0
Hazel Hawkins Mem Hosp	Hollister	San Benito	<50	Sn Jose-Sunnyvale-Sta Clara	19	N	920	$6,086,020
Fallbrook Hosp Dist	Fallbrook	San Diego	<50	Sn Diego-Carlsbad-Sn Marcos	18	N	385	$1,571,630
Mark Twain St Joes Hosp	San Andreas	Calaveras	<50	California (Rural)	17	Y	166	$1,757,592
Ojai Vly Com Hosp	Ojai	Ventura	<50	Oxnard-Thousand Oaks-Ventura	17	N	3	$8,605
Sutter Amador Hosp	Jackson	Amador	50-99	SAC-Arden-Arcade-Roseville	17	N	551	$3,168,235
Corcoran Dist Hosp	Corcoran	Kings	<50	Hanford-Corcoran	17	N	28	$133,590
Biggs Gridley Mem Hosp	Gridley	Butte	<50	Chico	16	Y	105	$813,742
San Gorgonio Mem Hosp	Banning	Riverside	50-99	Riverside-Sn Bernardino-Ontario	16	N	492	$2,065,144
Healdsburg Dist Hosp	Healdsburg	Sonoma	<50	Sta Rosa-Petaluma	15	Y	28	$270,123
Fewer Than 15 Miles' Driving Distance								

Table 3.4.2.1

Rural Hospitals

Hospital	City	County	Hosp Bed Size	Wage Area	Driving Distance	CAH	Stays	Est Hosp Cost
Pioneers Mem Hosp	Brawley	Imperial	100-199	El Centro	13	N	3,205	$10,440,734
Oak Vly Dist Hosp	Oakdale	Stanislaus	<50	Modesto	12	N	403	$1,505,851
Palm Drive Hosp	Sebastopol	Sonoma	<50	Sta Rosa-Petaluma	10	N	33	$472,895
St Mary Reg Med Ctr	Apple Valley	San Bernardino	100-199	Riverside-Sn Bernardino-Ontario	2	N	2,976	$15,422,217
Victor Valley Com Hosp	Victorville	San Bernardino	50-99	Riverside-Sn Bernardino-Ontario	2	N	1,330	$5,353,536
Rural hospitals (OSHPD definition)					**62**		**32,140**	**$164,757,738**
Remote rural (DRG definition, > 15 miles)					**57**		**24,193**	**$131,562,505**
CAH (Medicare)					**27**		**5,976**	**$42,220,345**
All stays							**446,715**	**$3,422,225,747**
Remote rural (DRG) as percent of all							**5%**	**4%**

Notes:

1. Hospitals are included in this table if they meet the OSHPD definition of rural. All Medicare critical access hospitals fell within this definition.
2. Hospitals that did not have any stays in the simulation baseline dataset are included in this table (shown with zero stays and zero estimated hospital cost). In addition, rural hospitals that operate on a combined license with a non-remote rural hospital are not considered remote rural.
3. Stays and estimated hospital cost refer to Medi-Cal fee-for-service stays in the simulation baseline dataset.
4. Driving distance is based on information provided by OSHPD. "California Licensed Healthcare Facilities. January 2006. California Health and Human Services Agency, Office of Statewide Health Planning and Development, Sacramento CA. Updated March 24, 2011.
5. If the nearest listed general acute care hospital does not operate at least a basic level emergency room, then the distance in miles was modified to reflect the nearest general acute care hospital that did. (This mileage estimation was done using Google Maps - ©2012 Google.)
6. Assignment of hospitals to the list in this table was finalized at the end of January 2013 for purposes of ratesetting and implementation of the DRG payment method. See the Medi-Cal DRG calculator for a complete list of hospitals.
7. Data exclude designated public hospitals and include non-designated public hospitals (which were excluded from the dataset used to set the DRG base prices for July 1, 2013). NDPHs will transition to DRG payment starting with admissions beginning on January 1, 2014.

3.5 Documentation, Coding and Capture Adjustment

Under a DRG payment method, overall payment for a hospital can be thought of as:

VOLUME OF STAYS X CASEMIX X DRG BASE PRICE

Other things equal, a 1 percent increase in measured casemix will result in a 1 percent increase in payment.[44] Measured casemix may increase because of "real" changes in patient clinical conditions or because of improved documentation and coding on the claim form. Measured casemix may also increase due to improvements in the capture of clinical information by the claims processing system. Payers such as Medicare and Medicaid are typically willing to pay for increases in real casemix but not for changes due to better documentation, coding and capture. Such changes do not reflect an increase in the hospitals' costs of serving Medicare and Medicaid beneficiaries. Medicare therefore makes a "documentation and coding adjustment" (DCA) that reduces the DRG base price to offset casemix increases due solely to improved documentation and coding. We use the terminology "documentation, coding and capture (DCC) adjustment" to underscore the fact that some of the increase in measured casemix will stem from changes in CA-MMIS.

It is essential for any payer introducing payment by DRG to address casemix increases attributable to better documentation, coding and capture. Reasons include: control over payments, ease in budget predictability, and the ability to account for deviations from the budget target.

The first question is whether the change in payment using DRGs can be expected to result in increases in measured casemix that go beyond changes in real casemix. If yes, the second question is, what action should DHCS take so that payment increases are driven only by changes in real casemix?

3.5.1 Real Casemix Change

The small but focused literature on this topic reflects consensus that real casemix change is about 0.5 percent to 1.5 percent a year, averaging at the lower end of the range.[45] Over time, improvements in anesthesia techniques, drug therapy, and medical technologies have meant that sicker patients can be treated as outpatients. As a result, the patients who do get admitted have become sicker, on average. As well, hospitals today can provide more extensive treatment for many conditions than they could 10 and 20 years ago.

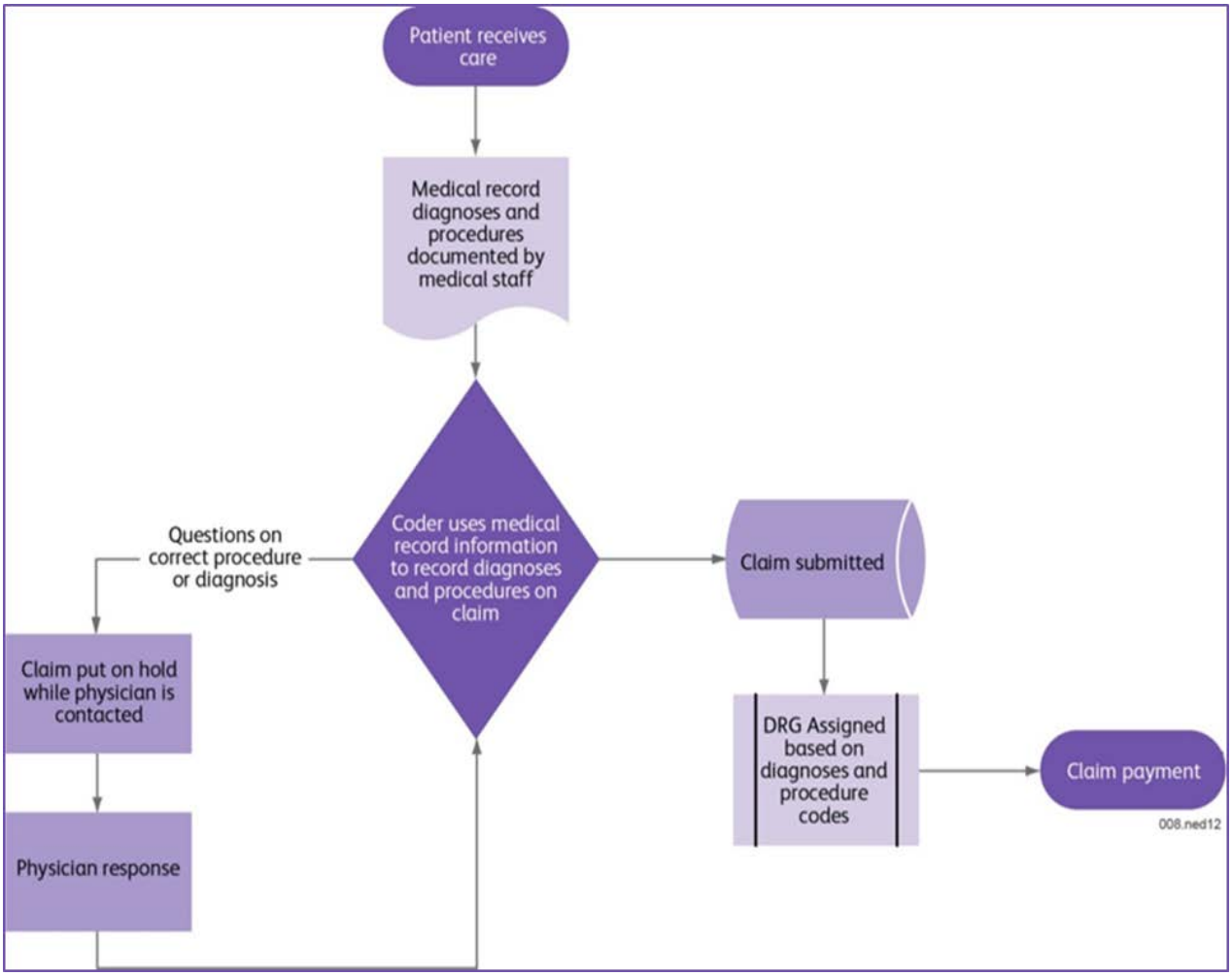
Although much of the research dates from the 1980s and 1990s, recent evidence points in the same direction. In the ten years before Medicare's implementation of MS-DRGs—a relatively quiet period in terms of incentives to improve documentation and coding—reported national casemix for Medicare patients increased at a compound growth rate of just 0.1 percent a year.[46] In California, an analysis by PriceWaterhouseCoopers noted that reported casemix increased "slightly" between 2001 and 2005, that is, at a compound growth rate of 0.61 percent a year.[47] That figure presumably includes both real casemix change as well as some results from the industry's continuing efforts to improve coding.

3.5.2 Documentation and Coding Process

DRG assignment depends on the diagnoses and procedures documented in the medical record, coded on the claim, captured by the claims processing system, and then input into the DRG algorithm (Chart 3.5.2.1).

Chart 3.5.2.1

Documentation and Coding Process



- ***Documentation.*** A standard of professional and ethical coding practice is that if the physician does not document it, then the coder cannot code it.[48] Coders can read the medical record and know from low hematocrit and hemoglobin values that the patient had anemia. However, the physician has to write "anemia" on the record for these diagnoses to be coded on the claim. Moreover, DRG grouping algorithms generally assign a low DRG to vague diagnoses (e.g., "not otherwise specified"). Therefore, physicians are asked to be specific between viral and bacterial pneumonia, between acute and chronic renal failure, between mechanical ventilator use of less than or more than 96 hours, etc.

  Educating physicians about better documentation is more of a challenge than educating coders. There are many more physicians than coders, physicians have many additional responsibilities, and they often are not hospital employees. It helps that physician documentation can also be important for measuring hospital quality, in physician profiling, and for medico-legal purposes. For example, surgeons care about surgical mortality rates that are risk-adjusted using diagnosis data. Suffice to say, however, that improving documentation is difficult and time-consuming. While coding practices may change in weeks or months, changes in documentation practices may take months or years.

- ***Coding.*** Information from the medical record is translated into specific diagnosis and procedure codes by coders. Coding, or more formally, health information management, is an increasingly professional occupation, with established standards of professional practice and ethics. Coders work every day under the understanding that codes drive payment and that inaccurate coding can constitute fraud. Unlike physicians, they typically work full-time in this area, attend regular trainings, and are either hospital employees or under contract.

  Based on analysis of Medicaid data and discussions with hospital staff in several states, we understand that coding staff generally take the same approach to coding regardless of payer. In two other states where Medicaid required no more than a principal diagnosis, for example, we nevertheless saw significant numbers of secondary diagnoses and procedures routinely submitted on claims.

  In specific instances, however, coding practice is affected by the method of payment. Since Medicare is the dominant payer for inpatient care, hospital practices are heavily influenced by Medicare's payment method. The CMS-DRG algorithm, used by Medicare until September 30, 2007, had a single list of complications and comorbidities (CC). Once a CC diagnosis was found in the medical record, then the addition of further CCs had no impact on DRG assignment. "Efficient" coding practice (as opposed to "complete" coding practice) would be to find a CC in a patient's medical record and then move on to the next patient. A similar consideration comes up when a coder must decide whether to query the physician for further information. For example, consider a medical record that mentions ventilator use without a number of hours. DRG assignment depends on whether ventilator use is less than or greater than 96 hours. To determine the specific procedure code, coding staff would have to put aside the claim, contact the physician, await the response, and then list the specific code. If this effort results in a higher DRG assignment, then there is a financial return to the extra effort; otherwise, there is not.

  For both documentation and coding, thoroughness matters most in those clinical areas where payment is driven by DRGs. In every state, that includes cardiology, pulmonology, orthopedics and other areas where Medicare is a major payer. For obstetrics, neonatology, pediatrics and mental health, however, the financial importance of complete coding will depend on whether Medicaid, BlueCross BlueShield and other non-Medicare payers use DRG-based payment.

When a payer—such as Medi-Cal—moves to DRG payment, then we would expect to see better documentation and coding in these areas.

- ***Claims processing.*** Even if all of a patient's medical conditions are included on the claim, not all diagnoses and procedures may be captured by the payer's claims processing system. In principle, hospitals can submit up to 25 diagnosis codes and 25 procedure codes. Medicare, however, traditionally was limited to the principal diagnosis, up to eight secondary diagnoses, and six procedure codes.[49] It now can process up to 25 diagnosis codes and 25 procedure codes, which will add impetus to hospital efforts to increase their own coding completeness.

  Medicaid programs vary widely in how many codes they can accept. Mindful of these limitations, hospitals sequence secondary diagnosis codes so that more important codes (e.g., congestive heart failure) are listed before less important codes (e.g., benign hypertension). The American Hospital Association looked at this question as part of its comments on the Medicare documentation and coding adjustment. Using data from four large states where hospital claims include up to 25 diagnoses, it found that only 0.25 percent of claims had a Medicare CC or major CC appear for the first time in positions 10 through 25. Another commenter, however, did offer evidence from New York State that increased capture of diagnoses would increase casemix.[50]

- ***DRG algorithms.*** DRG algorithms differ in how they use diagnosis and procedure codes. As mentioned above, CMS-DRGs included a single list of complications and comorbidities. Once a CC was listed on the claim, additional CCs made no difference to the CMS-DRG assignment.

  Since 2007, Medicare has used Medicare Severity-DRGs (MS-DRGs), which have both a CC list and a major CC list. The change in DRG algorithm saw an increase from 538 CMS-DRGs to 745 MS-DRGs. As distinctions among DRGs become finer, there is more opportunity for changes in coding to affect DRG assignment. Hospitals then have a financial incentive to improve their coding in order to capture a major CC if it is present and, if not, then at least a CC.

  APR-DRGs do not have a CC or major CC list. Instead, for each given condition, severity is measured as minor, moderate, major or extreme based on the number, nature and interaction of secondary diagnoses. There are also 1,256 DRGs. The algorithm is more sophisticated than CMS-DRGs or MS-DRGs, which makes it more accurate in capturing patient acuity and hospital resource use, especially for the patients with the most diagnoses and procedures.[51]

  Because the distinctions among the 1,256 DRGs are finer than among the 745 MS-DRGs, there are even more opportunities for coding to affect payment. For example, the relative weight for APR-DRG 139 (pneumonia) increases in steps from 0.3886 to 0.5773 to 0.8937 to 1.7342 depending on what diagnoses and procedures are reported. That is, payment for severity 4 is 3.5 times higher than for severity 1. If the DRG base price is (for example) $7,200, then additional documentation could add $1,359, $3,637 or $9,688 to the hospital's payment if the severity increased to levels 2, 3 or 4 respectively.

Changes over the years – from cost reimbursement to CMS-DRGs to MS-DRGs to APR-DRGs – have created many opportunities for hospitals to increase revenue by improving documentation and coding. Hospitals often include clinical documentation improvement programs as part of their business organization.[52] Many consultants have been training hospital staff about how to code claims more completely and how to sequence diagnoses and procedures in order to maximize payment.

Documentation and coding improvement is sometimes referred to pejoratively as code creep, DRG creep or upcoding. Barring specific evidence of fraud or abuse, we do not use these terms. Documentation and coding improvement is an appropriate and predictable response to the financial incentives set by payers. Indeed, better data enables better care throughout the healthcare system. The distinction, as noted above, is that it is inappropriate for payment to increase simply because of better documentation, coding and capture.

3.5.3 Applicability in California

Medi-Cal DRG rates are based on CY 2009 data trended forward to July 1, 2013.

Because the California MMIS currently stores only two diagnosis codes and two surgical procedure codes on each inpatient claim with no present-on-admission (POA) indicator available, for this project DHCS created a merged file that also included up to 25 diagnosis codes and 21 procedure codes that hospitals submitted to the Office of Statewide Health Planning and Development (OSHPD). The analytical dataset created for this project included 369,150 stays where the OSHPD data were matched to CA-MMIS data and 36,423 stays where a match was not possible. (These counts exclude stays for newborns that were derived from the mothers' claims.[53])

There are six key reasons to expect documentation and coding improvement as California moves from cost-based or negotiated rates to casemix-based rates using APR-DRGs:

- ***Increased financial incentive.*** Although hospitals do submit large volumes of diagnosis and procedure codes to OSHPD, there is not a strong financial incentive to do so. Under APR-DRG payment, the incentive will be clear and strong.

- ***Documentation and coding improvement prompted by Medicare changes.*** Medicare introduced a new DRG coding algorithm on October 1, 2007, that resulted in significant increases in measured casemix for Medicare patients. As discussed below, these increases had not yet run their course by the end of CY 2009. Changes in coding Medicare claims would also affect Medicaid claims, especially for adult medical/surgical patients.

- ***DRG algorithm***. APR-DRGs represent a sophisticated algorithm that makes extensive use of diagnosis and procedure codes. Incremental changes in diagnosis and procedure coding completeness can drive stays into higher-paying DRGs to a greater extent than under MS-DRGs or other DRG algorithms. Coding birthweight for underweight babies (under 2,500 grams) will be particularly important.

- ***Medicaid care categories and market share***. Although the use of MS-DRGs by Medicare gives hospitals an incentive to code completely, that incentive is strongest in adult cardiology, orthopedics, gastroenterology and other clinical areas where Medicare has a substantial market share. But when APR-DRGs are

implemented for Medi-Cal on July 1, 2013, we expect 78 percent of all stays to be for normal newborns, sick newborns, pediatrics and obstetrics.[54] In these lines of business, the Medicare market share is negligible and the Medi-Cal share approximates 50 percent (including both fee-for-service and managed care). For sick newborns and pediatrics with complex medical conditions in particular, more complete coding likely will lead directly to increased payment. In Section 6.7, for example, we will see that the APR-DRGs for sick newborns have noticeably longer lengths of stays in the Medi-Cal dataset than nationwide—a finding that probably reflects both true differences in length of stay as well as undercoding of neonate claims.

- ***Claims not crosswalked to OSHPD.*** The 36,423 CA-MMIS claims without an OSHPD match were included in the analytical dataset, unless excluded for technical reasons.[55] Since these claims had at most two diagnoses and two procedures, we know that there must be some under-statement of APR-DRG assignments. In analyzing these 36,423 claims, we concluded that roughly half probably would not have had significant additional diagnosis or procedure codes even if a match had been possible. We say that because of the claims that did not match, 13 percent had only one diagnosis on the CA-MMIS claim anyway, 16 percent were normal newborns with charges less than $30,000, and 23 percent were for stays of two days or less. The other half, however, may well have missing diagnosis and procedure codes that would make a significant difference to APR-DRG assignment.[56]

- ***Inferred claims for normal newborns.*** As discussed in the *Summary of Analytical Dataset*, normal newborns were previously included on their mothers' claims, but will be billed separately under DRG payment.[57] The simulation baseline dataset therefore includes 132,592 normal newborn claims inferred from the mothers' claims. All these babies were assigned to APR-DRG 640-1, that is, to the healthiest normal newborn DRG. As a result, the average casemix of the 138,743 babies in the eight normal newborn DRGs was 0.1005 (Table 3.5.3.1). In fact, however, some proportion of the inferred newborns can be expected to group to severity levels 2, 3 or 4 for APR-DRG 640 or to APR-DRG 626, which includes normal newborns with birthweights between 2,000 and 2,499 grams. To estimate the approximate impact, we analyzed the prevalence of severity of illness for normal newborns using the Nationwide Inpatient Sample (NIS). For example, DRG 640-1 accounted for 96.4 percent of all normal newborns in the simulation dataset but 80.8 percent of all normal newborns in the NIS. (We checked our work by analyzing data from another large Medicaid program, where the pattern of normal newborn DRG assignments was very similar to the NIS.) By applying the national percentage splits (e.g., 80.8 percent for APR-DRG 640-1) to the California simulation dataset, we were able to estimate that the average casemix for normal newborns would be 0.1183 once separate claims are submitted for these babies. The difference would represent an increase in overall casemix in the simulation dataset of 0.9 percent, that is, an increase of 0.0055 percentage point from 0.6109 to 0.6163. (This estimate was calculated before non-designated public hospitals were removed from the simulation dataset. Nevertheless we see no reason why the percentage impact would be materially different in the dataset excluding NDPHs.)

Table 3.5.3.1

Adjustment for Average Casemix for Normal Newborns

		Nationwide Inpatient Sample			CA Sim Dataset Using Actual Percent Split			CA Sim Dataset Using National Percent Split		
APR DRG	National Relative Weight	Stays	National Percent Split	Total Casemix	Stays	CA Dataset Percent Split	Total Casemix	Stays	National Percent Split	Total Casemix
626-1	0.1318	16,968	1.1%	2,236	754	0.5%	99	1,552	1.0%	205
626-2	0.3513	9,956	0.7%	3,498	161	0.1%	57	910	1.0%	320
626-3	0.9289	9,487	0.6%	8,812	176	0.1%	163	868	1.0%	806
626-4	1.9481	3	0.0%	6	1	0.0%	2	0	0.0%	1
640-1	0.0966	1,225,095	80.8%	118,344	133,717	96.4%	12,917	112,037	81.0%	10,823
640-2	0.1403	207,976	13.7%	29,179	3,233	2.3%	454	19,020	14.0%	2,668
640-3	0.3635	47,614	3.1%	17,308	700	0.5%	254	4,354	3.0%	1,583
640-4	2.0188	21	0.0%	42	1	0.0%	2	2	0.0%	4
Total		**1,517,120**	**100.0%**	**179,426**	**138,743**	**100.0%**	**13,948**	**138,743**	100%	16,409
Average casemix				**0.1183**			**0.1005**			**0.1183**

Impact on Average Casemix in the Simulation Dataset

Analytical Step	Stays	Total Casemix	Average Casemix
1. Total casemix in simulation dataset (calculated from *Summary of Analytical Dataset*, Table 4.7.1)	446,715	272,839	0.6108
2. Add estimated adjustment (= 16,409 - 13,948)		2,460	
3. Total casemix after adjustment	446,715	275,299	0.6163
4. Expected change in casemix due to more accurate DRG assignment for normal newborns			0.0055
5. Percentage increase in total casemix (i.e., 0.0055 / 0.6108)			0.90%

Notes:

1. DRG 626 is Neonate bwt 2000-2499g, normal newborn or neonate w other problem.
2. DRG 640 is Neonate birthwt >2499g, normal newborn or neonate w other problem.
3. Total stays refer to the simulation baseline dataset, used during the policy design of the payment method. See the separate report *Medi-Cal DRG Project: Hospital-Specific Base Prices for Implementation July 1, 2013* for refinements made for purposes of ratesetting.
4. Data include non-designated public hospitals, which were excluded from the dataset used in setting DRG base prices for July 1, 2013. NDPHs, however, will transition to DRG payment starting with admissions beginning on January 1, 2014.

3.5.4 Experience from Other Payers

The most pertinent experience is from the Maryland all-payer system, Medicare, and Pennsylvania Medicaid. There was considerable study of Medicare experience in the 1980s. When Maryland switched its casemix algorithm from a Maryland variant of CMS-DRGs to APR-DRGs in 2005, additional evidence was generated. When Medicare moved from CMS-DRGs to MS-DRGs in 2007, it examined its own experience as well as that of Maryland.

- ***Maryland experience.*** Maryland has a unique, "all-payer" system under which the same payment method is used for all hospitals by all payers (including Medicare, under a waiver of federal law). Payment is based on regulated charges, with higher charges allowed for sicker patients. "Sickness" is measured using DRGs. For many years, Maryland used a state-specific variant of CMS-DRGs as its grouping algorithm. On July 1, 2005, however, the state adopted APR-DRGs. Before that date, three teaching hospitals–including Johns Hopkins and the University of Maryland, both of which have high volumes–had been paid using APR-DRGs. In addition, hospitals knew that APR-DRGs were coming and that casemix increase would be limited by a "governor" that compared casemix under APR-DRGs with casemix before APR-DRGs.

  In 2005-06, measured casemix grew by 4.2 percent, of which 1.0 percent to 1.5 percent was estimated to be real.[58] Documentation and coding improvement was therefore estimated to be 2.7 percent to 3.2 percent. In 2006-07, measured casemix grew by 2.1 percent. If we use the same range of 1.0 percent to 1.5 percent for real change, then coding improvement would represent 0.6 percent to 1.1 percent. Maryland also reported that the percentage of stays with 15 diagnoses (its maximum) increased rapidly from 7 percent in FY 2004 to 13 percent in FY 2005, 18 percent in FY 2006, and 21 percent in FY 2007.

  By 2007–08, staff of the Maryland Health Services Cost Review Commission (HSCRC) believed that coding change had stabilized, with measured casemix change that year estimated at less than 1.0 percent.[59] The Commission approved HSCRC staff recommendations for the removal of the governor and a 1.0 percent casemix cap in April 2008. HSCRC staff also considered the potential for continued improvements in coding and increases due to a change in the number of diagnoses collected (from 15 to 30).

  Between 2009 and 2011, Maryland's allowance for casemix growth adjustment was consistently set at the lesser of the actual increase or a limit of 0.5 percent. According to HSCRC staff, this approach allowed for variability in a hospital's casemix growth from year to year and did not inappropriately disadvantage hospitals that experienced a decline in a given year. For example, a hospital with a negative casemix growth of -0.5 percent one year followed by positive casemix growth of 1.5 percent would not be subject to the adjustment on the year of the decline.[60]

  For 2012, the Commission noted that inpatient casemix growth had stabilized, after a period of prolonged growth limited by a governor.[61]

  To summarize, the Maryland experience indicates that the change from CMS-DRGs to APR-DRGs did result in a significant casemix increase due to improved documentation and coding beyond "real" casemix growth. In addition, Maryland's experience also shows that significant casemix growth occurs during the first few years of the change in DRG algorithm with stabilization after the fourth year.

Unlike Medicare, Maryland was successful in implementing control of casemix growth through the use of a governor until increases in measured casemix returned to the historical growth trend.

- ***Medicare experience.*** When Medicare changed from cost reimbursement to CMS-DRGs on October 1, 1983, a major impact was that it "brought medical records out of the basement."[62] Even if not always literally true, the statement underscores the reality that improved coding became a relatively easy way to increase revenue and profit margins. Starting from a low base, measured casemix rose an average of 3.1 percent a year from 1981 (before DRGs) to 1987.[63] Throughout the 1990s, measured casemix stabilized and even fell slightly in 1998 and 1999, during a period of heightened scrutiny from the federal investigators.[64]

  When Medicare began planning to implement a new severity-adjusted DRG algorithm to replace CMS-DRGs, it knew it had to plan for another round of improved coding. For one thing, every percentage point of Medicare casemix represents over $1 billion in annual payments. The topic was discussed at length in the proposed and final rules for FFY 2007 and FFY 2008. Based on an analysis similar to that in this section, the final rule put in place a prospective 4.8 percent adjustment that would be implemented over three years, that is 1.2 percent in FFY 2008, 1.8 percent in FFY 2009 and 1.8 percent in FFY 2010.[65] The American Hospital Association opposed these adjustments, calling them "behavioral offsets" (a term CMS did not use) and saying that Maryland's experience with APR-DRGs was not an indication of what would happen with MS-DRGs.[66]

  In an unusual development, Congress passed legislation in September 2007 to overrule CMS and reduce the adjustments to 0.6 percent in FFY 2008 and 0.9 percent in FFY 2009.[67] Congress specified that if changes in coding completeness exceeded these levels then CMS could make recoupments (with interest) and implement future adjustments in FFY 2010 and FFY 2011.

  In the end, it turns out that CMS's original projections were understated, if anything. According to CMS analysis, the impact of documentation and coding change was 2.5 percent in FFY 2008 and 2.8 percent in FFY 2009, for a cumulative impact of 5.4 percent.[68] The 5.4 percent figure was corroborated independently by the Medicare Payment Advisory Commission (MedPAC).[69] Even industry estimates (which followed a different methodology) resulted in a 3.5 percent estimate for the first two years.[70] Either figure is higher than CMS's original estimate of 3.0 percent (1.012 x 1.018 = 1.030) and much higher than the 1.5 percent adjustment (1.006 x 1.009 = 1.015) allowed by Congress.[71] Moreover, documentation and coding change continued into the third year post-implementation. CMS calculated it at 0.8 percent in FFY 2010.[72] (A number for FFY 2011 wasn't listed.)

  Under federal law, CMS must recoup overpayments due to documentation and coding change (or repay underpayments, though that is not the situation). Recoupments are made by reducing the DRG base price (what Medicare calls the standardized amount) going forward. All calculations are complicated by the fact that the effects of documentation and coding change accumulate. Because average casemix in FFY 2008 was 2.5 percent higher than it otherwise would have been, the base for FFY 2009 was similarly higher by 2.5 percent—after which point there was continued growth in measured casemix. As the impacts accumulate, the dollars have grown to the point that CMS feels it can't catch up by reducing the base price all at once. For the last several years, the annual

Medicare proposed and final rules have included bewildering discussions of how recoupments should be made. Given the complexities and uncertainties, it is not unreasonable to think that even the hospitals would have been better off had CMS been allowed to implement the adjustments it originally proposed.

To summarize, the Medicare experience clearly demonstrates that documentation and coding change occurred in response to a new payment method, that the change had not yet run its course by the end of CY 2009 (the time period for the California analytical dataset), and that a more accurate documentation and coding adjustment up front would have saved Medicare and the hospitals a lot of complexity and uncertainty in the end.

- ***Pennsylvania experience.*** Pennsylvania implemented payment by APR-DRG effective July 1, 2010. Casemix was expected to be in the range of 1.02 to 1.04. Instead, after six months average casemix was found to be 1.067. The program therefore made an across-the-board adjustment to relative weights of 0.9747 (= 1.04 / 1.067) in order to bring spending back toward the level originally expected. The adjustment was made in October 2011 retroactive to July 1, 2011.[73]

More recently, the Mississippi and Florida Medicaid programs have also considered the question of "real casemix" increase and casemix increase due to documentation, coding and capture improvements. Mississippi implemented APR-DRGs effective October 1, 2012, and calculated rates that included a 3.5 percent adjustment in anticipation of improvement in diagnosis and procedure coding on claims.[74] Florida will be implementing a new payment method for inpatient hospital care using APR-DRGs effective July 1, 2013. Florida anticipates a 7.5 percent increase in casemix for the first year, with 1.5 percent increase for real casemix change. In its final implementation plan, Florida indicated that it plans to reduce the relative weights implemented under the new APR-DRG system by 6 percent for documentation and coding.[75]

3.5.5 Implications and Recommendations

For DHCS, each percentage point of casemix represents about $50 million in payments.[76] The most obvious implication from the above analysis is that documentation and coding do improve in response to changes in payment methods. To assert, as AHA did in 2007, that a documentation and coding adjustment is a "backdoor budget cut" in hospital payment strikes us as disingenuous.[77] As CMS has argued repeatedly, it would be financially irresponsible for a payer to ignore the logic and the evidence that show that documentation and coding improve in response to stronger financial incentives.

To allow for changes in measured casemix amidst the uncertainty of implementing a new payment method, we recommended the following steps:

1. ***Real casemix change***. In calculating the DRG payment parameters for FY 2013-14, we recommended an estimate that real casemix change is 0.5 percent per year. Starting from the average CY 2009 casemix figure of 0.6220 (which reflects the exclusion of NDPHs from DRG payment), the "real" casemix in FY 2013-14 would be expected to be $0.6220 \times 1.005^{4.5} = 0.6361$.
2. ***Documentation and coding adjustment.*** In anticipation of improved documentation and coding by hospitals, and in recognition that the simulation dataset understated casemix for newborns and possibly other care categories, we included a documentation and coding adjustment of 3.5 percent. That is, we would expect

measured casemix in FY 2013-14 to be 0.6361 x 1.035 = 0.6584. The value of the documentation and coding adjustment – 3.5 percent – cannot be specified with certainty. However, we believe it is a reasonable estimate, based especially on the experience of Medicare, the Maryland all-payer rate-setting system and the Pennsylvania Medicaid program. We also note that our recommendation is similar to the decision made by Mississippi and less than the decision made by Florida.

3. ***Use of a "casemix corridor."*** Because of the inherent uncertainty in forecasting casemix and payments in the first year of DRG payment, we recommended use of a casemix corridor. Such a mechanism would be similar to what Maryland and Pennsylvania did to manage change in the face of uncertainty. For Medi-Cal, the corridor could be plus or minus 1 casemix point, i.e., 0.6484 to 0.6684. In percentage terms, the corridor would be 1.5 percent more or less than the expected casemix of 0.6584. Using simulated FY 2013-14 DRG payments of $2.6 billion, 1.5 percent equals plus or minus $40 million. After taking into account payment for incomplete claims that were omitted from the simulation dataset (but that are expected to be submitted in complete form under DRG payment), the corridor would likely be plus or minus approximately $44 million. A corridor protects both the hospitals and DHCS against forecast errors in casemix. As noted above, the figure of 3.5 percent for the documentation and coding adjustment cannot be precise. Use of a casemix corridor reduces the impact of imperfect foresight. If, in fact, documentation and coding improvement is less than expected and reported casemix turns out to be, e.g., 0.6400, then the DRG base price would be increased in order to increase funding to hospitals. If, on the other hand, casemix were higher than expected, e.g., 0.6700, then an adjustment could be made in order not to exceed the DHCS's budget target. Application of the casemix corridor would not be automatic but would be a DHCS policy decision based in part on analysis of why the actual casemix value differed from the expected casemix value.

Table 3.5.5.1
Casemix Calculation Corridor Examples

		Calculation	Avg Casemix
Expectation of FY 2013-14			
1	2009 actual (simulation dataset, excluding NDPHs)		0.6220
2	Real casemix change = 0.5 percent a year	0.6220 x (1.005^4.5)	0.6361
3	Documentation, coding, capture improvement = 3.5 percent	0.6361 x 1.035	0.6584
4a	Set "casemix corridor" lower bound at projection minus one percentage point	0.6584 - 0.0100	0.6484
4b	Set "casemix corridor" upper bound at projection plus one percentage point	0.6584 + 0.0100	0.6684
Actual FY 2013-14			
6	Scenario 1: forecast almost accurate => keep casemix adjustment factor at 1.00		0.6500
7	Scenario 2: casemix lower than corridor => increase casemix adjustment factor		0.6400
8	Scenario 3: casemix higher than corridor => decrease casemix adjustment factor		0.6700

Notes:

1. Specific values used in this example are subject to review and revision by DHCS.
2. Application of the casemix corridor would not be automatic but would be a DHCS policy decision based in part on analysis of why the actual casemix value differed from the expected casemix value.
3. NDPHs were excluded from the dataset used in setting DRG base prices for July 1, 2013. NDPHs, however, will transition to DRG payment starting with admissions beginning on January 1, 2014.

4. ***Prospective rather than retrospective base price changes.*** As a general statement, retroactive payment adjustments are to be avoided whenever possible. They are confusing, burdensome to the payer and the providers, and bedevil financial planning by all parties. Traditionally, an advantage of DRG payment has been its lack of ambiguity. The DRG base price and the relative weights are known in advance and there is no cost settlement years after the fact. The difficulties now faced by hospitals and Medicare as Medicare tries to recoup MS-DRG overpayments are a caution against trying to make retrospective changes. To the greatest extent possible, we recommended that any necessary DRG base price adjustments be made only on a go-forward basis. We note, however, that the necessity of retroactive adjustments cannot be ruled out in advance.

5. ***Advance notice to hospitals.*** We recommended that DHCS calculate year-to-date casemix each month in FY 2013-14 and advise the hospital industry of the findings. It usually takes several months for trends in casemix to become clear, even in a state the size of California. The reason is that higher-casemix stays tend to be longer (almost by definition) and therefore take time to be submitted. Even before a DHCS decision on a possible base price adjustment has been made, hospitals and other interested parties can make their own forecast based on measured casemix through the end of October, the end of November, etc.

6. ***Analysis of casemix changes.*** If measured casemix in FY 2013-14 is outside the corridor, claims analysis can illuminate the reasons. If, for example, the frequency of stays by base APR-DRG is about as expected but average severity tends to be higher, then there would be a strong implication that documentation and coding of secondary diagnoses improved. If, on the other hand, there was a noticeable change in the number of births versus the number of adult cardiovascular stays, then the implication would be that the changing needs of the fee-for-service population were an important factor. For newborns, the number of claims with low reported birthweights could be significant since, other things equal, lower birthweight tends to increase casemix for babies.

7. ***A "casemix adjustment factor."*** If the decision is made to increase or decrease the payment level because casemix is lower or higher than the "corridor" we recommended that the adjustment be made through a separate "casemix adjustment factor" in CA-MMIS. The DRG base payment there would be as shown in Equation 3.5.5.1.

   (3.5.5.1) DRG BASE PAYMENT = PAYMENT RELATIVE WEIGHT x DRG BASE PRICE x CASEMIX ADJUSTMENT FACTOR

   This construction would allow hospitals and other interested parties to clearly differentiate between the relative weights, the DRG base price, and the casemix adjustment factor. (This point was made during the hospital consultation process, and we thank participants for suggesting this approach.) The casemix adjustment factor would be initially set at 1.00.

   Note that the casemix adjustment factor is a different concept than the documentation, coding and capture adjustment. The DCC adjustment is made *before* implementation in anticipation of the effect on measured casemix of improved documentation, coding and capture. The casemix adjustment factor is a contingency, to be used *after* implementation to adjust payment if casemix is outside the corridor described above.

3.6 Transition Base Prices

The new payment method includes a three-year transition period to enable hospitals to adapt to the change in payment levels. The transition will be budget-neutral overall, that is, some hospitals will receive higher payments than they otherwise would have while others will receive lower payments than they otherwise would have. The reason for a three-year period is that we expect the move to DRG payment to result in a noticeable redistribution of funds among California's hospitals, making a longer transition more appropriate. Medi-Cal's transition period policy is similar to what Medicare does with major payment changes, with transitional rates for three years and the change fully implemented in the fourth year. As a matter of semantics, we call it a three-year transition while Medicare calls it a four-year transition, but the idea is the same.

3.6.1 Policy Rationale

For hospitals that see increased payment levels, the move to DRGs will obviously be welcome news and not difficult to manage. For hospitals that see decreased payment levels, a transition period allows time to adjust finances and operations as need be.

For hospitals, the concern is about profit, not revenue. Medi-Cal fee-for-service payment accounts for only about 4 percent of the typical hospital's net patient revenue,[78] so even a 20 percent decrease in Medi-Cal FFS revenue would mean a decrease of just 0.8 percent in net patient revenue for the typical hospital.

Any decrease in revenue goes straight to the bottom line, however. If the hospital's profit margin had been 5 percent, then a 0.8 percent revenue reduction drops the margin to 4.2 percent, which is a 16 percent decrease in dollar terms. If the margin had been 2 percent, then a decrease to 1.2 percent represents a 40 percent decrease in dollar terms. In general, the impact on margin is greatest when margin is low, Medicaid market share is high, and/or the decrease in Medicaid payment is large.

While recognizing the potential adverse impacts on some hospitals from decreases in Medicaid payment, we note that other hospitals will see increased revenue and profit, which presumably will enable increased access to care. We also note that DRG payment provides larger rewards for improving efficiency than the previous payment method. Cost reductions from reduced length of stay, for example, will flow straight to the bottom line, as discussed in Section 6.7. Hospitals concerned about the impact of DRG payment on their profit can mitigate the impact by decreasing their own costs without affecting their revenue.

3.6.2 Calculating Transition Base Prices

Medi-Cal has implemented the transition via the DRG base price. We specifically recommended against Medicare's typical practice of calculating payment the old way, then the new way, then splitting the difference. The Medicare approach would have been significantly more complex, more costly, and more opaque than adjusting the DRG base price. The Medicare approach would also muddle the incentives to improve efficiency, since the previous Medi-Cal payment method rewarded long lengths of stay while DRG payment rewards short lengths of stay. In any case, treatment authorization review will no longer occur for the vast majority of days, so it would be impossible to accurately calculate what the previous payment method would have paid if it were to continue in place through June 30, 2016.

One advantage of this option is that the individual hospital chief financial officers have been advised of their projected DRG base prices for 2013-14 (Year 1), 2014-15 (Year 2), 2015-16 (Year 3) and 2016-17 (Year 4), thereby enabling financial planning. These base prices are subject to change depending on overall changes in funding levels, adjustments in Medicare wage area assignments and index values, and possibly for adjustments related to differences between forecast and actual casemix. Nevertheless, each hospital is able to model the impact of the transition base prices (and any changes to the base prices) on its own patient population.

All calculation of transitional DRG base prices was based on the 2009 simulation dataset. Although it might have been desirable to update the dataset to, say, 2012, such an update was not feasible, largely because of the challenges in matching CA-MMIS claims to OSHPD records in order to obtain the full set of diagnosis and procedure codes necessary for APR-DRG grouping.

Full details of how FY 2013-14 (Year 1) transition base prices were calculated are provided within a separate document, *Medi-Cal DRG Project: Hospital-Specific Base Prices for Implementation July 1, 2013 (W206).* Because the hospital-specific transition base prices reflected confidential per diem rates under the Selective Provider Contracting Program (SPCP), the document remained confidential until the SPCP ended June 30, 2013. A summary of the FY 2013-14 base price calculations follows. The summary reflects the information shared with hospitals in January and February 2013 when they were notified of their base prices and participated in two DHCS webinars on this topic. Non-designated public hospitals were handled separately; see Section 3.6.3.

Of the 287 California hospitals with claims in the simulation dataset, transition base prices were set for 211 hospitals. For the other 76 hospitals, transition base rates were not set for the following reasons. (Note that a hospital may fall under more than one reason; the counts reflect the first applicable reason.)

- **Impact less than 5 percent (29 hospitals).** A decrease (or increase) of less than 5 percent in Medi-Cal FFS payment was considered non-material and similar to the types of payment and expense changes that hospitals manage on a routine basis. For the typical hospital described above (i.e., Medi-Cal FFS representing 4 percent of net patient revenue), a 5 percent decrease in revenue would result in modest decreases in overall margin in dollar terms.

- **Expected impact less than $50,000 (17 hospitals).** If the simulated impact was less than $50,000 (up or down) then no transition base rate was set. $50,000 is less than wages and benefits for one nurse, so even the smallest hospital should be able to manage the impact.

- **Fewer than 100 Medi-Cal stays per year and Medi-Cal represented fewer than 2 percent of average daily census (30 hospitals).** If a hospital has fewer than 100 stays per year and Medi-Cal represented less than 2 percent of the average daily census, it would be very unlikely for payment level changes to affect access to care.[79]

In calculating transition base prices, DRG base payments and DRG outlier payments tend to offset each other. For example, a decrease in the base price tends to decrease base payments but increase outlier payments. If the goal is $10 million in payment, then it could be met by combining $9 million in base payments with $1 million in outlier payments or by combining $1 million in base payments with $9 million in outlier payments. Although the two solutions are mathematically equal, as a matter of policy it is

undesirable to have too large a percentage of total payment be made in the form of outliers.

The following iterative process resulted in transition base prices that kept the outlier payment percentage at the intended percentage of about 17 percent overall and resulted in a set of DRG base prices where four-fifths of the transition hospitals had a transition base price that was within 50 percent of what their base prices would have been without a transition (the "statewide base price").

1. We started with hospitals where the expected impact of the statewide base price was a change of more than 5 percent.
2. Stays with extreme outlier payments (defined as outlier payments exceeding $100,000) were set aside, to be brought back into the analysis in Step 4. These stays were set aside because they were so unusual and so expensive that their presence could skew the calculation of the transition base price, which is an average to be applied to all stays.
3. For hospitals with an estimated decrease of more than 5 percent, a transition DRG base price was calculated that would result in an estimated decrease of no more than 5 percent.
4. This intermediate transition DRG base price then was applied to all stays, including the extreme outlier stays. If the estimated decrease was greater than 5 percent, the transition base price was recalculated until the estimated decrease was no more than a 5 percent decrease.
5. We then turned to hospitals where the expected impact was an increase of more than 5 percent.
6. Stays with extreme outlier payments were set aside, and then a transition base price was calculated that would result in an estimated increase of no more than 5 percent. This intermediate transition DRG base price then was applied to all stays, including the extreme outlier stays. The estimated impact then was recalculated until the estimated impact was no more than a 5 percent increase.
7. For a few hospitals, the calculated transition base price was less than 50 percent of the statewide base price, reflecting the interplay of base payments and outlier payments described above. For these hospitals, the transition base price was raised to 50 percent of the statewide base price. For these hospitals, the estimated payment increase in Year 1 exceeded 5 percent.
8. The overall impact on payments then was calculated to determine if the money "spent" on restricting payment decreases was offset by the money "saved" by restricting payment increases to 5 percent (or more than 5 percent for the hospitals described in Step 7). The result was, in fact, out of balance. As directed by the Department, our primary goal was to restrict estimated payment decreases to no more than 5 percent. Therefore, for hospitals with expected increases, the transition base prices were recalculated so expected increases were no more than 2 percent for most hospitals (with the exception of the hospitals described in Step 7).

In addition, base prices were set for 15 hospitals that, for various reasons, did not have stays in the simulation dataset. For 14 hospitals, the base price was set at the statewide base price. The 15th hospital had the same National Provider Identifier as another

hospital in the same chain in 2009 but has a different NPI in FY 2013-14. It therefore received the same transition base price as the other hospital. Table 3.6.2.1 shows a categorization of hospitals by expected impact in FY 2013-14.

For Years 2 and 3 (FY 2014-15 and FY 2015-16), transition base prices were set in similar fashion. For Year 2, the goal was to keep the estimated impacts within plus or minus 5 percent relative to Year 1. For Year 3, the goal was to keep the estimated impacts within plus or minus 5 percent relative to Year 2. For both Year 2 and Year 3, the calculations worked out so that the corridor was minus 5 percent on the negative side and plus 4 percent on the positive side. In Year 4, all hospitals will be at the statewide price (adjusted for wage area differences). Details were provided in the memorandum *DRG Base Prices for Years 2, 3 and 4 (W235)*, dated August 21, 2013. Hospitals were sent letters at the end of July 2013 advising them of their projected DRG base prices, with the caveats that base prices are subject to change based on changes in wage area indexes, overall funding levels, etc.

Table 3.6.2.1

Count of Hospitals by Expected Impact in FY 2013 14, Relative to Baseline Under Current Payment Method

	Decrease				Increase				
	> 15%	10 15%	5 10%	5% or less	5% or Less	5 10%	10 15%	>15%	Total Hospitals
Hospitals Paid Using Statewide Base Price									
Impact <5%				16	13				**29**
Impact <$50,000	9	1				1		6	**17**
<100 stays & <2% Medi-Cal	18	1					1	10	**30**
Subtotal no transition	**27**	**2**	**0**	**16**	**13**	**1**	**1**	**16**	**76**
Hospitals Paid Using Statewide Base Price									
Expected impact if no transition price = decrease > 15%				85					**85**
Expected impact if no transition price = decrease 10-15%				5					**5**
Expected impact if no transition price = decrease 5-10%				10					**10**
Expected impact if no transition price = decrease 5% or less									**0**
Expected impact if no transition price = increase 5% or less									**0**
Expected impact if no transition price = increase 5-10%					10				**10**
Expected impact if no transition price = increase 10-15%					10				**10**
Expected impact if no transition price = increase > 15%					77	3	2	9	**91**
Subtotal hospitals with transition base price	**0**	**0**	**0**	**100**	**97**	**3**	**2**	**9**	**211**
All hospitals with volume in simulation dataset	**27**	**2**	**0**	**116**	**110**	**4**	**3**	**25**	**287**
Hospitals with No Volume									
Hospitals with no volume in simulation dataset									**15**
Total: All California Hospitals	**27**	**2**	**0**	**116**	**110**	**4**	**3**	**25**	**302**

Notes:

1. The table includes only DRG hospitals, i.e., designated and non-designated public hospitals are excluded.
2. NDPHs will transition to DRG payment starting with admissions beginning on January 1, 2014.

3.6.3 Transition Base Prices – Non-Designated Public Hospitals

Because non-designated public hospitals will move to DRG payment effective January 1, 2014, the calculation of transition base prices involved some differences even though the overall approach was very similar. For NDPHs, we refer to “Year 1” as the period from January 1, 2014, to June 30, 2014. As with the other hospitals, hospitals were assigned the statewide base price if the estimated impact was under 5 percent or under $50,000 or if there were fewer than 100 Medi-Cal stays and Medi-Cal represented less than 2 percent of the hospital volume. Transition base prices were calculated with the goal that the Year 1 estimated impact on the negative side would be no lower than 1.0 percent. This was balanced by setting the corridor on the positive side to no higher than 0.5 percent. Details of the calculations were provided in the memorandum *DRG Base Prices for Implementation January 1, 2014 – NDPHs (W220)* dated June 10, 2013. The NDPHs received letters advising them of their January 1, 2014 base prices and a training webinar was held July 17, 2013.

For Year 2 (starting July 1, 2014), the transition base price calculations were as described in Section 3.6.2. For Year 3, the transition price calculations were similar to those in Section 3.6.2 except that the corridor was -7.5 percent on the negative side, balanced by 6.6 percent on the positive side. NDPHs were advised of the projected DRG base prices for Years 2, 3 and 4 at the same time as other hospitals. The memorandum *DRG Base Prices for Years 2, 3 and 4 (W235)* included NDPHs as well as other hospitals.

4 Other Factors in Payment Calculation

4.1 Transfer Adjustments

4.1.1 Transfers to Acute Care Settings

DRG payers typically reduce payment if a transfer to an acute care setting means that the length of stay at the transferring hospital is unusually low. The typical approach is to follow the Medicare model, that is, to calculate the DRG base payment as described in Section 2.1, check if the discharge status qualifies as a transfer to another acute care setting and, if so, calculate a transfer-adjusted base payment. The actual DRG base payment is then the DRG base payment or the transfer-adjusted amount, whichever is lower. The formula for the transfer-adjusted base payment is:

$$\text{(4.1.1.1) TSF-ADJUSTED BASE PAYMENT} = \frac{\text{(DRG BASE PAYMENT)}}{\text{(OVERALL AVERAGE LOS)}} \times \text{(ACTUAL LOS + 1)}$$

The effect is to calculate a per diem payment amount and pay it instead of the DRG payment if the length of stay is less than the overall average length of stay minus 1 day. If the stay is longer than that, the hospital receives the full DRG payment despite the transfer. The formula effectively pays double for the first day of care to compensate hospitals for the one-time costs of admission.

Table 4.1.1.1 shows that about 1 percent of stays would probably meet the criteria as a transfer, (i.e., discharge statuses 02 and 05). In fact, because of anomalies in discharge status values in the analytical dataset, we believe that more than 1 percent of stays will meet our definition of a transfer in the future.[80] Because not all transfer stays are paid the transfer-adjusted base payment, we expect the percentage of stays subject to the payment reduction in any case would be less than 3 percent.

Each DRG payer needs to decide for itself which UB-04 discharge statuses qualify as an acute care transfer. The goal is to include those statuses where it is likely that the patient will continue to receive acute care treatment while excluding those statuses that are more likely to be post-acute care. DHCS used the following UB-04 discharge statuses to identify claims subject to the transfer pricing policy:

- 02 – Discharged/transferred to a short-term hospital for inpatient care
- 05 – Discharged/transferred to a designated cancer center or children's hospital
- 65 – Discharged/transferred to a psychiatric hospital or psychiatric distinct part unit of a hospital
- 66 – Discharges/transfer to a critical access hospital

We did not recommend that the list include discharge statuses 07 (left against medical advice) or 43 (discharged/transferred to a federal healthcare facility). Medicare does count 07 as a transfer, but only if the patient is admitted to another Medicare DRG hospital the same day (which would seem unlikely since the patient left the first hospital against medical advice). Status 43 includes both acute care (such as a Veterans Affairs hospital) and post-acute care (such as a VA nursing facility). On balance, we followed Medicare in not defining it as an acute care transfer.

The transfer payment adjustment only applies to the transferring hospital. The receiving hospital is paid the full DRG amount.

For average length of stay data, DHCS adopted the use of the arithmetic average of untrimmed data from the Nationwide Inpatient Sample. Although other measures have theoretical advantages, the untrimmed arithmetic average is simpler and is also directly comparable to the average length of stay calculated from Medi-Cal paid claims data.

Table 4.1.1.1

Discharge Status

Status	Discharge Status Description	Stays	% of All
01	Discharged home	409,111	92%
06	Discharged to care of home health service organization	11,487	3%
03	Discharged to SNF	10,715	2%
02	Discharged to another short-term general hosp	5,194	1%
20	Expired or did not recover	4,719	1%
07	Left against medical advice	2,404	1%
62	Discharged to inpatient rehab facility / unit of hosp	1,565	0.4%
63	Discharged to long term care hospital	1,468	0.3%
21	Law enforcement / prison	52	0.0%
Total		**446,715**	**100%**

Notes:

1. Data are the responsibility of Xerox and should not be attributed to any California state agency.
2. For purposes of APR-DRG grouping and making transfer adjustments, CA-MMIS would use the UB-04 values shown. The discharge statuses were derived by Xerox based on a crosswalk of OSHPD and RASS disposition values (Summary of the Analytical Dataset, December 2011, Table 2.7.1).
3. This table is based on the simulation baseline dataset (May 2012).
4. Data exclude designated public hospitals and include non-designated public hospitals (which were excluded from the dataset used to set the DRG base prices for July 1, 2013). NDPHs will transition to DRG payment starting with admissions beginning on January 1, 2014.

4.1.2 Transfers to Post-acute Care Settings

For certain transfers, Medicare has a "post-acute care transfer policy" that reduces payment to hospitals for a specified list of DRGs (275 MS-DRGs in FY 2013) under some circumstances. The need for this policy arose from the disparate payment incentives facing acute care providers (paid per stay) and post-acute care providers (paid per day) for patients who needed both types of care. For example, for some DRGs such as hip replacement, Medicare reduces payment to the hospital if a stay is particularly short and the patient is discharged to a post-acute setting.

Patient discharge status codes subject to Medicare's post-acute care transfer policy are: 03 (skilled nursing facility), 05 (cancer/children), 06 (home health), 62 (rehabilitation), 63 (long-term care hospital), and 65 (psychiatric).[81]

DHCS did not adopt Medicare's post-acute care transfer policy. Given the very different patient characteristics of the Medicare and Medicaid populations, we did not think the benefits to DHCS would outweigh the added complexity for the hospitals and DHCS. In Table 4.1.1.1, 5.6 percent of discharges are to home health, a rehab or a nursing facility, and not all of those would be for DRGs included within the definition of a post-acute transfer policy.

4.1.3 Transfers from Non-Contract Hospitals

Effective with the implementation of the DRG payment method on July 1, 2013, hospitals are no longer required to transfer patients based on their previous non-contract designation in closed Health Facility Planning Areas (HFPAs).

Contract or non-contract facility designations do not apply under the DRG payment method. All HFPAs are considered open areas allowing for all hospitals to serve Medi-Cal beneficiaries for both emergency and elective services (subject to approved Treatment Authorization Requests).[82]

4.2 DRG Outlier Payment Adjustments

DRG methods typically include outlier provisions to pay separately for stays that are unpredictably expensive. A state can follow the Medicare model or develop its own calculation mechanism.

4.2.1 Purpose of Outlier Payment

Given the wide range of cases seen in the inpatient setting, the chief challenge in any inpatient payment method is to align payment with expected resource use in a way that is fair to hospitals while also providing appropriate incentives for efficiency. Resource use can be measured by charges, cost, length of stay or some other way. However it is measured, the goal is to pay more for cases with higher expected resource use and less for cases with lower expected resource use.

Variation in resource use from case to case reflects both predictable factors and unpredictable factors. Predictable factors include principal diagnosis, performance of a

major procedure, age, complications, comorbidities, and discharge status. The DRG grouper is designed to capture predictable factors so that the relative weight and therefore the DRG base payment may be set accordingly.

Outlier payments are appropriate because it is not always possible for the DRG grouper to capture the idiosyncrasies of individual stays.

4.2.2 Cost Outlier Adjustment: High Side

Cost outlier calculations are always in two steps. First, the stay is evaluated for whether it qualifies as a cost outlier stay. If so, then the second step is to calculate the cost outlier payment.

Although there is no necessary reason for a Medicaid program to follow Medicare (and some states do not) the Medicare model is well accepted by hospitals. We recommended the following approach that is based on the Medicare model but with added references to threshold 2 and marginal cost factor 2.

(4.2.2.1) ESTMD HOSPITAL COST = TOTAL CHARGES[83] X HOSPITAL-SPECIFIC CCR

(4.2.2.2) LOSS OR GAIN = DRG BASE PAYMENT[84] – ESTIMATED COST

(4.2.2.3) COST OUTLIER STAY = YES, IF |LOSS| > COST OUTLIER THRESHOLD 1

(4.2.2.4) COST OUTLIER PAYMENT =

- [(|loss| – cost outlier threshold 1) x marginal cost factor 1], to a maximum of [(cost outlier threshold 2 – cost outlier threshold 1) x marginal cost factor 1]

  Plus

- [(|loss| – cost outlier threshold 2) x marginal cost factor 2]; cannot be negative

The use of two cost outlier thresholds and two marginal cost factors is unusual among DRG payers and is specifically intended to buffer hospitals against extreme losses on extreme outlier cases. Table 4.2.2.1 shows examples of stays using the threshold and marginal cost factors that were effective with the implementation of the DRG payment method on July 1, 2013. Threshold 1 is set at $40,000, threshold 2 is set at $125,000, marginal cost factor 1 is set at 60 percent and marginal cost factor 2 is set at 80 percent. The effect is that for losses from $40,000 to $125,000, the hospital is paid 60 percent of the loss to a maximum of $51,000. Once the loss hits $125,000, then it is paid 80 percent for that part of the loss exceeding $125,000.

There are a few key differences in how various payers put outlier payments into operation. These include the following:

- **Cost-to-charge ratio.** We recommended use of hospital-specific CCRs rather than a single statewide CCR, even though the single statewide CCR would be simpler. The reason is that hospitals vary considerably in how they markup charges over cost, so use of hospital-specific data is more fair to hospitals. In situations where a hospital-specific CCR is not available (e.g., an out-of-state hospital or a new hospital), then a default statewide CCR is used. The default CCR affects only a small number of stays.[85] One source is the most recent Medicare urban CCR for California, including operating and capital components.
- **Cost outlier threshold.** We recommended use of a single cost outlier threshold value rather than thresholds that vary by DRG. Where DRG-specific thresholds are used (e.g., Montana and South Carolina) the effect is that hospitals sustain higher losses on higher-paying DRGs before cost outlier payments kick in. For California, we think that following Medicare in its use of a single threshold is more consistent with the purpose of outlier payments as described in Section 4.2.1. The essential justification is that a hospital is only at full risk for cost up to the point where its loss is, for example, $40,000, and after that point the payer shares in the loss. The policy is the same regardless of the patient condition.

Table 4.2.2.1

Examples of High Side Outlier Payment Using Two Step Payment Calculation

Line	Charges	Est. Cost	DRG Base Payment	Loss	Outlier Payment 1	Outlier Payment 2	DRG Payment	Loss After Outlier Payment	Pay to Cost
1	$100,000	$25,000	$5,000	-$20,000	$-	$-	$5,000	-$20,000	20%
2	$200,000	$50,000	$5,000	-$45,000	$3,000	$-	$8,000	-$42,000	16%
3	$300,000	$75,000	$5,000	-$70,000	$18,000	$-	$23,000	-$52,000	31%
4	$400,000	$100,000	$5,000	-$95,000	$33,000	$-	$38,000	-$62,000	38%
5	$500,000	$125,000	$5,000	-$120,000	$48,000	$-	$53,000	-$72,000	42%
6	$600,000	$150,000	$5,000	-$145,000	$51,000	$16,000	$72,000	-$78,000	48%
7	$700,000	$175,000	$5,000	-$170,000	$51,000	$36,000	$92,000	-$83,000	53%
8	$800,000	$200,000	$5,000	-$195,000	$51,000	$56,000	$112,000	-$88,000	56%
9	$900,000	$225,000	$5,000	-$220,000	$51,000	$76,000	$132,000	-$93,000	59%
10	$1,000,000	$250,000	$5,000	-$245,000	$51,000	$96,000	$152,000	-$98,000	61%

Note:

1. In these examples, the hospital-specific cost-to-charge ratio is 25 percent, threshold 1 is set at $40,000, threshold 2 is set at $125,000, marginal cost factor 1 is set at 60 percent, and marginal cost factor 2 is set at 80 percent. Actual values of the CCR and DRG base payment are illustrative and will vary by hospital. On July 1, 2013, Medi-Cal implemented these thresholds and marginal cost factor values.

- **Marginal cost factor.** Once the payer does share in the hospital's loss, it covers less than 100 percent of the loss above the threshold. Medicare's share is 80 percent (90 percent for burns) and states range from 50 percent to 80 percent. The share is called the "marginal cost factor," because it is intended to cover only the marginal costs of the additional care. These costs include only variable costs such as staffing and supplies, not fixed costs such as plant and equipment. In general, variable costs represent substantially less than 100 percent of hospital total cost.[86] As described above, CA-MMIS functionality enabled two levels for the marginal cost factor: 60 percent for the first part of the loss and 80 percent for the remainder of the loss.

- **Cost outlier payment pool.** For any given set of claims, the total payout for cost outliers depends on three variables: cost outlier threshold, the marginal cost factor, and the percentage of total payments that is set aside to fund outlier payments. A payer can choose to specify two of the three variables as a matter of policy. A typical decision is to set aside 5 percent of all payments as cost outlier payments, then choose a marginal cost factor. The cost outlier threshold then follows from the arithmetic. The size of the cost outlier pool can also be specified after an initial payment simulation has been performed. Medicare aims for 5 percent while Medicaid programs typically use a higher range, reflecting what appears to be different statistical properties between the Medicare and Medicaid populations (i.e., the frequency distribution of cost per stay has higher skewness in the Medicaid population).

Regardless of the outlier policy decisions made, it is essential to update the threshold value annually. Otherwise, more and more stays qualify for outlier payments, thereby undermining the incentives of a DRG payment method to reward efficiency. The Office of Inspector General has criticized states for not updating these thresholds and plans further such initiatives.[87] States should also monitor patterns of outlier payment. See Section 6.6.

4.2.3 Cost Outlier Adjustment: Low Side

Just as outlier payments are intended to increase payment when a stay is extraordinarily and unpredictably expensive, various payment policy options exist to decrease funding when a stay is extraordinarily and unpredictably inexpensive.

Although cost outlier payments are standard practice among payers for extraordinarily expensive cases, there is no similar standard practice for extraordinarily inexpensive cases. Medicare, for example, pays the full DRG payment even for short stays, subject to post-payment review of the medical necessity of the admission. (Transfers are a different situation; see Section 4.1.) One reason is that unusually inexpensive stays are less common than unusually expensive stays. (A frequency distribution of inpatient stays by hospital cost always shows skewness on the right-hand side.)

Nevertheless, there can be good reasons for reducing payment when the hospital's costs are unusually low. One reason is simple public relations: questions sometimes arise why a payer is paying more than the hospital charged. The answer, of course, is that the philosophy of DRGs is to set a "price for a product" regardless of charges or costs for particular hospitals or particular stays. That explanation, however, can get lost in translation. Another reason is that reducing payment for extraordinarily inexpensive stays enables higher payment for the vast majority of stays that are paid on a straight DRG calculation.

Under APR-DRGs, some type of "low-side" outlier adjustment can also be more appropriate than under Medicare DRGs. As a more sophisticated grouper, APR-DRGs do

a better job capturing the extreme costs of patients who are extremely ill. Base payments for transplant and neonatal DRGs can exceed the highest-paying MS-DRG under Medicare ($139,226 for FFY 2013). If a patient in one of these APR-DRGs dies or for some other reason is relatively low-cost for the hospital, then the straight base payment can seem inappropriately high.[88]

(4.2.3.1) COST OUTLIER STAY = YES IF GAIN > FIXED LOSS THRESHOLD

(4.2.3.2) COST OUTLIER PAYMENT = (ESTIMATED GAIN – COST OUTLIER THRESHOLD 1)
X MARGINAL COST FACTOR 1

The low-side outlier logic is symmetric to the high-side outlier logic, except that only threshold 1 and marginal cost factor 1 are used. If we take $40,000 as an example of an outlier threshold value, then the high-side outlier policy is that a hospital can lose a maximum of $40,000 on a particular stay before DHCS shares in its loss by increasing payment. The low-side outlier policy is that a hospital can gain a maximum of $40,000 on a particular stay before DHCS shares in its gain by decreasing payment.

Effective with the implementation of the DRG payment method on July 1, 2013, the low-side outlier threshold (cost outlier threshold 1) is set $40,000, and the marginal cost factor (marginal cost factor 1) is set at 60 percent.

4.3 Add-on Payments Functionality

Add-on payments are unrelated to DRG pricing. Typically these payments are hospital-specific, while DRG payments are typically the same for all hospitals for any given DRG. Examples of add-on payments used by some payers include cost-based payment for capital, medical education, some “DSH” payments to disproportionate share hospitals, and bonuses under pay-for-performance programs.

The payment method includes provisions for a hospital-specific add-on payment to be added for each stay. In California, supplemental payments have traditionally been made outside the claim payment system. See Section 4.6. Nevertheless, this functionality will be available in order to enable future policy flexibility. The functionality will be for the CA-MMIS pricing logic to look up the provider file and apply the inpatient add-on field value to each inpatient claim. There are no plans to use this field initially.

4.4 “Lesser of” Paid or Billed

The “lesser of” paid or billed logic continues to be applied under the DRG payment method as was previously done so that final payment does not exceed total charges on the claim.

4.5 Other Health Coverage and Share of Cost

In general, Medicaid programs calculate the allowed amount for a service and then subtract three dollar quantities in determining the reimbursement amount, that is, the actual payment to the provider. The three quantities are:

- ***Other health coverage (OHC)***.[89] If a commercial payer or some other third party is liable for some portion of the claim, then that portion is subtracted from the allowed amount. Medi-Cal defines other health coverage (also known as third party liability) as "any non-Medi-Cal private health coverage plan or policy that provides or pays for healthcare services." A Medi-Cal beneficiary is considered to have OHC when the individual receives healthcare benefits from organizations such as commercial health insurance companies, prepaid health plans, health maintenance organizations, and other benefit plans.

- ***Share of cost (SOC).***[90] Some Medi-Cal beneficiaries must pay, or agree to pay, a monthly dollar amount toward their medical expenses before they qualify for Medi-Cal benefits. This dollar amount is called share of cost. A beneficiary's SOC is similar to a private insurance plan's out-of-pocket deductible. Some services are exempted from the SOC provisions, including pregnancy and post-partum related services. Medi-Cal instructs providers to identify SOC on the UB-04 using the value code and amount fields. The Share of Cost or SOC amount is subtracted from the allowed amount in calculating payment to the provider.

- ***Other cost-sharing.*** Other cost-sharing comprises copayments and coinsurance, neither of which is applicable for Medi-Cal inpatient care.[91]

Because this policy design document addresses the determination of the allowed amount, no changes are anticipated to the MMIS logic that calculates the difference between the allowed and the reimbursement amounts. Other healthcare coverage payments and share-of-cost continue to be applied under the DRG payment method as was previously done.

4.6 Supplemental Payments

California provides supplemental payments to eligible hospitals under various programs. These payments are typically not tied to any particular claims. Examples of supplemental payments include disproportionate share hospital (DSH) payments and payments for medical education. Supplemental payments are outside the scope of the DRG payment method.

4.7 Separately Payable Services, Supplies and Devices

In general, DRG payment is intended to cover all services and supplies provided during an inpatient stay. Hospitals therefore have strong incentives to manage both the quantity and the costs of the services, supplies and devices they use. In principle, the DRG relative weights reflect the average costs of devices and supplies that are needed to, e.g., implant a defibrillator or repair a hip fracture. In practice, DRG payment works well enough that exceptions are rare. We refer to these exceptions as separately payable services, supplies and devices.

Medicare currently allows separate payment for inpatient services under three circumstances.[92]

- ***Organ acquisition.*** In most cases, these costs are reimbursed through the cost settlement process; for renal transplants, designated renal transplantation hospitals are paid adjusted rates.

- ***Blood clotting factors.*** Blood factors are paid based on a fee schedule (e.g., 95 percent of average wholesale price).

- ***New medical technology.*** Devices that meet very specific Medicare criteria related to newness, FDA approval, substantial clinical improvement and unusual costliness criteria may qualify for add-on payments. Very few devices meet these criteria.

Under the Medi-Cal Selective Provider Contracting Program, the California Medical Assistance Commission also allowed separate payment in specific circumstances, chiefly organ acquisition, blood clotting factors and dialysis. (See Table 2.4.2.1 in the *Summary of Analytical Dataset,* December 2011.) These payments were made in the context of a payment method in which each hospital received the same flat-rate per diem payment amount for all or almost days of care, regardless of cost.

Other DRG payers often do not allow separately payable devices and supplies, because of concerns over incentives and complexity.

In designing the new DRG-based payment method, once again we faced a trade-off among the principles listed in Section 1.3. Allowing separate payment for specific services, supplies or devices diminishes the incentives for efficiency, reduces transparency, increases administrative burden, and increases complexity. On the other hand, access to care may be jeopardized if a certain type of case will be a predictable money-loser even with the casemix and outlier adjustments of a DRG payment method. An example is surgery for patients with hemophilia. The need for blood factors can sharply increase the hospital's cost of an otherwise routine surgery. Moreover, the volume and therefore the cost of blood factors do not necessarily depend on the specific procedure performed.

Under DRG payment, separate payment for a list of specific services and supplies continues. Existing CA-MMIS functionality is used which allows separate payment on an outpatient claim for certain services and supplies even though the patient has been admitted for inpatient care. The previous logic applied to specific HCPCS codes at

specific hospitals; in the future it will apply to specific HCPCS codes regardless of the treating hospital.

Blood factors and bone marrow search and acquisition costs are appropriately included on the list. The necessity and cost of blood factors varies considerably and unpredictably from stay to stay, even for the same patient. For these reasons, Medicare pays separately for blood factors. Bone marrow search services are typically billed as outpatient services; these costs also vary widely and unpredictably. Bone marrow acquisitions are closely related to the search costs. Please refer to Table 4.7.1 for the list of services.

Table 4.7.1

Specialized Services That Can be Billed on an Outpatient Claim

Bone Marrow Search and Acquisition Costs	CPT Code
Management of recipient hematopoietic progenitor cell donor search and cell acquisition	38204
Unrelated bone marrow donor	38204
Blood Factors	**HCPCS Code**
Blood Factor XIII	J7180
Blood Factor Von Willebrand- Injection	J7183 / J7184 / Q2041
Blood Factor VIII	J7185 / J7190 / J7192
Blood Factor VIII/Von Willebrand	J7186
Blood Factor Von Willebrand	J7187
Blood Factor VIIa	J7189
Blood Factor IX	J7193 / J7194 / J7195
Blood Factor Antithrombin III	J7197
Blood Factor Antiinhibitor	J7198

Although Medicare does pay separately for organ acquisition costs on a cost reimbursement basis, we do not believe the extra complexity is justified in this case. The reason is that payment simulations show significantly increased payments for organ transplants, from 67 percent of hospital cost under the previous payment method to 89 percent of cost under DRG payment. This increase is an example of how casemix-adjusted DRG payment methods can enable access to care for the sickest patients. As with all other aspects of the payment method, the list of separately payable services, supplies and devices can be revisited later on with the benefit of experience.

In simulations performed to date, financial data for all services, supplies and devices that had been separately payable under the previous payment method were rolled into the corresponding inpatient claims. The impact was only to add 0.30 percent, or $10.5 million, to baseline payment in the 2009 analytical dataset. However, these services tended to be concentrated in specific DRGs.[93] In setting the final DRG base prices and other payment method parameters, we have adjusted the analytical dataset so that it reflects DHCS's final decisions on the list. Blood factors and bone marrow search and acquisition were removed from the baseline, so that the end result is an "apples vs. apples" comparison of baseline payment with DRG payment, including outlier payments as appropriate.

4.7.1 Bundled Physician Services for Certain Hospitals

For some hospitals, specific physician services (e.g., laboratory and pathology) were bundled into the negotiated inpatient hospital per diem rates under the previous SPCP payment method. Under the new payment method, this will no longer apply. All physician services should be billed separately on a professional claim (i.e., CMS-1500, X12N837P). For background information, please see Section 2.4.2 of the *Summary of Analytical Dataset*.

4.8 Newborn Hearing Screening

The California Newborn Hearing Screening Program was established by law to identify newborns and infants with a hearing loss prior to three months of age and to implement audiological and early intervention services by six months of age.[94] Hospitals with perinatal services are required to provide inpatient hearing screening for all newborns with the parent's permission, prior to hospital discharge. Medi-Cal payment for newborn hearing screenings is an all-inclusive flat fee billed as an outpatient service, separate from the inpatient hospital stay.[95]

Implementation of DRG payment would have no effect on this screening program.

4.9 Negotiated Payments

In exceptional circumstances, there may be a need to negotiate a specific payment level for hospital inpatient services provided to Medicaid beneficiaries by out-of-state hospitals. For example, payment for cases involving specialty care such as pediatric organ transplants is sometimes negotiated separately since only a few hospitals nationwide can provide this care. The intention is that such arrangements would be truly exceptional, applying to perhaps a half-dozen cases per year. The risk from a payment policy perspective is that creating this flexibility would create an expectation that negotiated payment would become the norm for certain types of cases.

For the design of the new payment method we recommended incorporating functionality that will give DHCS the flexibility to negotiate payment to an out-of-state hospital in extremely rare situations where complex medical services and surgical procedures otherwise would be unavailable. This flexibility would not be available to California hospitals, which serve sufficient volumes of Medi-Cal patients that payment adequacy would be more appropriately viewed across all stays. We also recommended that enabling language be included in the DRG state plan amendment.

DRG-based payments will reduce the need for negotiated payments and will help DHCS in negotiations when they do occur. The APR-DRG algorithm covers all inpatient medical conditions and procedures that can be classified using the ICD coding scheme, which itself is intended to be exhaustive. Therefore even claims with rare conditions and procedures will group to an APR-DRG. DRG payment will be much more accurate than the previous per diem payment in paying more for more costly cases. Indeed, Medi-Cal's regular DRG-based payment may be sufficient for some stays where the treating hospital previously insisted on negotiated payment. When negotiations are needed, the starting

point can be Medi-Cal's payment for that APR-DRG. California could also compare its rate with what would be paid by New York, Texas, South Carolina, Montana, Rhode Island and other states that use APR-DRGs.

4.10 Pay for Quality (P4Q)

Payers are increasingly interested in incorporating quality measurement and P4Q incentives in their payment methods. Any such initiatives require careful study and implementation.

4.10.1 Health Care-Acquired Conditions (HCACs)

The Patient Protection and Affordable Care Act (PPACA) prohibited federal payments to states for Medicaid services related to health care-acquired conditions or HCACs.[96] The PPACA required the federal government to issue regulations effective July 1, 2011, that would apply to Medicaid.

On June 1, 2011, CMS published final regulations on the health care-acquired conditions requirements for state Medicaid agencies. While the rule became effective July 1, 2011, CMS announced a delay in compliance action until July 1, 2012, in order to allow states additional time for implementation and provider involvement.

In general, the Medicaid rule provides flexibility to states to identify the conditions and the service settings that would be subject to adjustment in payment or non-payment policies. At the same time, California and other states must comply with the minimum requirements established by the PPACA and federal regulations. This section discusses the Medicaid minimum requirements and DHCS approach for compliance as applicable to the hospitals within the scope of the DRG payment method.

Federal Requirements: Medicare

The Medicaid HCAC minimum requirements are based on similar provisions in Medicare's "Hospital-Acquired Conditions and Present on Admission Indicator Reporting (HAC & POA)" payment policy.

Under the Medicare HAC & POA policy, CMS is required to apply a quality adjustment to the Medicare DRG for certain hospital-acquired conditions or HACs. Medicare implemented the program in two phases: first by requiring hospitals to report the POA indicator effective October 1, 2007, and then by implementing payment reductions for a specified list of HACs effective with discharges on or after October 1, 2008.

Under Medicare, these conditions must meet three criteria in order to be added to the HAC list, namely, the condition must be (a) high cost, high volume or both; (b) result in the assignment of a case to a DRG that has a higher payment when present as a secondary diagnosis; and (c) could reasonably have been prevented through the application of evidence-based guidelines.

The HAC & POA payment policy is triggered when the condition is on the HAC list, it is a secondary diagnosis and the condition was acquired during the stay, that is, the patient did not have the condition when admitted to the hospital (captured through specified present-on-admission indicator values on the claim). If these criteria are met then the

diagnosis will not be considered in DRG assignment, with the effect that the HAC would not increase the DRG assignment or the payment to the hospital.

The Medicare HAC & POA payment provision applies to hospitals subject to Medicare's Inpatient Prospective Payment System (IPPS).[97] Complete documentation by hospitals of diagnoses, procedures and POA indicators is critical to meaningful data.

By Medicare's definition, a HAC "could reasonably have been prevented through the application of evidence-based guidelines."[98] In other words, the presence of a HAC during the stay reflects a failure by the hospital. CMS therefore drew the HAC list very narrowly so that the payment reduction would be clearly defensible in all or almost all cases.

In practice, there are hardly any HACs. For FY 2010, Medicare reported that only 0.16 percent of over 10.2 million stays included a HAC.[99] Moreover, because payment is affected only if the HAC affected the DRG assignment, payment was reduced for only 0.04 percent of stays. The financial impact on Medicare and hospitals has been negligible.[100]

Federal Requirements: Medicaid

Under the Medicaid HCAC regulations, states must comply with minimum requirements which include nonpayment for conditions on the Medicare list of HACs. In addition, states are also required to deny payment for services commonly referred as erroneous surgeries. (Erroneous surgeries are also identified by Medicare as part of its National Coverage Determination policies.) Health care-acquired conditions and erroneous surgeries are often referred to as provider preventable conditions or PPCs, the umbrella term used in the final rule.

Other requirements for state Medicaid programs include items such as:

- Ongoing state compliance with the HCAC conditions based on Medicare's final annual hospital IPPS rule, which is published in August of each year
- Requiring provider reporting to ensure that the conditions are identified in claims for Medicaid payment
- Applying the Medicaid HCAC minimum requirements to conditions occurring in any inpatient hospital setting
- Submitting a state plan amendment on compliance with the Medicaid HCAC requirements
- Ensuring that payment is reduced for HCACs when payment is made on a per diem basis
- Reduced payment is limited to the amounts directly identifiable as related to the HCAC and the resulting treatment
- Extending the requirements to all Medicaid contracts and subcontracts
- Extending the requirements to Medicaid managed care contracts
- Ensuring nonpayment of these conditions for Medicare crossover claims where a Medicare HAC denial occurs

- Compliance with CMS reporting requirements

Analysis of Medi-Cal Claims

In order to estimate the impact of Medicaid HCAC regulations on fee-for-service Medi-Cal, we analyzed 286,338 stays from CY 2009. These stays were from the simulation baseline dataset and included present-on-admission values. The data subset excluded stays that were modeled as transitioning to managed care by 2013, stays where a newborn claim was derived from the mother's claim, and stays where a CA-MMIS claim record could not be matched to an OSHPD record. (The OSHPD records were the source of the POA values in the simulation baseline dataset.) See Section 2.2 of the *Summary of Analytical Dataset* for details.

Table 4.10.1.1 shows the number of occurrences for each POA valid value. As expected, "Y" (present on admission) was the most frequent occurrence, that is, the HCAC condition would have no impact on payment since it was not acquired during the stay. There were few occurrences of invalid or missing POA values.

Under the new payment method, CA-MMIS will need to capture the POA indicator and edit the values submitted on the claim in order to appropriately adjust payment in the presence of an HCAC condition.

Table 4.10.1.1
Prevalence of Present on admission (POA) Indicators

POA Ind	Description	Occurrences	Percent of Total	Payment Impact
Y	Diagnosis was present at time of inpatient admission	1,833,563	73.8%	Payment made for condition when an HCAC is present
N	Diagnosis was not present at time of inpatient admission	201,490	8.1%	No payment made for condition when an HCAC is present on a secondary diagnosis
U	Documentation insufficient to determine if condition was present at the time of inpatient admission	2,266	0.1%	No payment made for condition when an HCAC is present on a secondary diagnosis
W	Clinically undetermined. Provider unable to clinically determine whether the condition was present at the time of inpatient admission	2,043	0.1%	Payment made for condition when an HCAC is present
Blank	Unreported/not used. Diagnosis is exempt from POA reporting	444,928	17.9%	Payment made for condition when an HCAC is present
Invalid	Invalid / Missing	159	0.0%	
	Total diagnosis values	**2,484,449**	**100%**	

Notes:

1. CMS established a value code of "1" for POA as a workaround to 'blank' reporting on the electronic 4010A1. However, in the dataset used for this analysis a "1" is not captured. 5010 specifications provide more specific direction in the future.
2. A list of exempt ICD–9–CM diagnosis codes is available in the ICD–9–CM Official Guidelines for Coding and Reporting at www.cdc.gov/nchs/data/icd9.
3. Only stays in the simulation dataset supplemented with OSHPD diagnosis, POA, and procedure codes were used for the HAC analysis.
4. Data include non-designated public hospitals (which were excluded from the dataset used to set the DRG base prices for July 1, 2013). NDPHs will transition to DRG payment starting with admissions beginning on January 1, 2014.

To improve our understanding of the HCAC requirements for California, we used the Medicare list of HACs, the POA data from the analytical dataset, and the version 29 APR-DRG algorithm to group the stays with and without the HAC.

The Medicaid HCAC list is almost identical to the Medicare HAC list, except in the case of the category of deep vein thrombosis or pulmonary embolism after certain orthopedic

procedures. For Medicaid, this category does not apply to total knee replacement and total hip replacement for pediatric and obstetric populations. For our analysis, we used the Medicare HAC list, which does not make this distinction. In addition, the analysis is based on the Medicare list of HACs effective October 1, 2011, available at the time of this report. More recently, the list of HACs applicable to Medicare and Medicaid has been expanded to include additional HACs.[101]

As with the Medicare HAC list, the list of conditions for Medicaid has been narrowly drawn. Table 4.10.1.2 shows the list of Medicaid HCACs and payment analysis for CY 2009 for Medi-Cal hospitals, including designated public hospitals (DPHs).[102] The first section of the table shows the HAC analysis results for DRG hospitals (hospitals to be paid by DRG) and non-designated public hospitals or NDPHs[103]; the second section shows the results for DPHs (hospitals paid outside the DRG payment method).

Table 4.10.1.2 shows that out of the 373,131 stays, there were just 485 stays statewide that included a hospital-acquired condition, or 0.125 percent of all stays. In just 17 stays (0.005 percent) would the hospital-acquired condition have made a difference in the calculated DRG payment. Table 4.10.1.2 also demonstrates the effect on payment when there is a change in the DRG assignment due to the presence of a HCAC. For example, for the HAC category *Falls and Trauma*, the sum of the DRG relative weights decrease from 94 to 86, after removing the HACs just for these stays.

Table 4.10.1.2 shows similar prevalence of the HAC conditions between designated public hospitals and hospitals that will be subject to the DRG. DRG hospitals, DPHs and NDPHs contribute proportionately to the prevalence of the top four conditions (vascular catheter-associated infections, catheter urinary tract infections, pressure ulcers, and falls/trauma) as well as in the number of stays with a change in the DRG assignment.

For DRG hospitals and NDPHs, the analysis shows that out of the 286,338 stays, there were just 315 stays that included a hospital-acquired condition, or 0.11 percent of all stays. In just nine stays (0.003 percent) would the hospital-acquired condition have made a difference in the calculated DRG payment.

California's results are very consistent with the experience of Medicare and what we have seen in other states. In an analysis we did for South Carolina Medicaid, only 0.19 percent of 65,697 stays included a HAC. In our simulation of payment by APR-DRG (which South Carolina implemented in October 2011), payment would be decreased in only 0.01 percent of stays.[104] The implication is that the HCAC program, as currently applied, is unlikely to generate strong incentives to prevent adverse outcomes.

Table 4.10.1.2

Prevalence of Health Care Acquired Conditions in Medi Cal Fee for Service, CY 2009

HCAC Category	Stays	Charges	Est Cost	Baseline Payment	APR DRG Change		Sum of Relative Weights	
					Yes	No	Before HCAC Removal	After HCAC Removal
DRG Hospitals and Non-designated Public Hospitals								
Vascular catheter-assoc. infection	203	$115,175,904	$28,181,788	$17,244,694	-	203	1,297	1,297
Catheter-associated UTI	34	$9,684,149	$2,410,958	$2,032,926	2	32	129	127
Falls and trauma	30	$6,759,116	$1,462,488	$830,498	5	25	84	78
Pressure ulcers stages III & IV	28	$20,808,180	$4,677,775	$3,187,542	1	27	203	201
Surgical site infection after certain ortho procs	11	$4,107,629	$1,178,220	$834,454	-	11	81	81
Poor glycemic control	3	$2,300,230	$421,139	$177,435	1	2	10	10
Surgical site infection following CABG	2	$2,708,652	$518,854	$246,165	-	2	14	14
DVT/PE after certain ortho procs[2]	2	$217,769	$54,557	$35,067	-	2	3	3
Foreign object retained after surgery	1	$41,831	$11,474	$6,475	-	1	1	1
Air embolism	1	$69,051	$23,768	$5,200	-	1	3	3
Blood incompatibility	-	$0	$0	$0	-	-	-	-
Surgical site infection after bariatric surge	-	$0	$0	$0	-	-	-	-
Total DRG hospitals	**315**	**$161,872,511**	**$38,941,020**	**$24,600,456**	**9**	**306**	**1,826**	**1,816**
As a percent of 286,338 stays	**0.11%**	**1.39%**	**1.43%**	**1.20%**	**0.003%**	**0.11%**		
Designated Public Hospitals								
Vascular catheter-assoc. infection	103	$67,495,395	$15,358,828	$8,144,734	-	103	612	612
Pressure ulcers stages III & IV	29	$23,109,335	$5,552,048	$3,389,286	-	29	205	205
Catheter-associated UTI	15	$7,461,043	$1,698,509	$803,200	1	14	59	58
Falls and trauma	6	$736,634	$209,116	$128,066	2	4	10	8
Foreign object retained after surgery	5	$1,462,033	$324,571	$97,492	-	5	15	15
Poor glycemic control	5	$659,242	$154,464	$99,748	3	2	9	6
DVT/PE after certain ortho procs[2]	4	$494,944	$109,878	$46,210	2	2	12	12
Surgical site infection after certain ortho procs	3	$3,390,446	$752,679	$317,756	-	3	25	25
Air embolism	-	$0	$0	$0	-	-	-	-
Blood incompatibility	-	$0	$0	$0	-	-	-	-
Surgical site infection following CABG	-	$0	$0	$0	-	-	-	-
Surgical site infection after bariatric surge	-	$0	$0	$0	-	-	-	-
Total DPH	**170**	**$104,809,070**	**$24,160,093**	**$13,026,491**	**8**	**162**	**947**	**940**
As a percent of 86,793 stays	**0.20%**	**2.33%**	**2.26%**	**1.71%**	**0.01%**	**0.19%**		
All Medi-Cal stays with a HCAC condition	**485**	**$266,681,581**	**$63,101,112**	**$37,626,947**	**17**	**468**	**2,774**	**2,756**
As a percent of 373,131 stays	**0.13%**	**1.65%**	**1.66%**	**1.34%**	**0.005%**	**0.125%**		

Notes:

1. Charges, cost and payment are for the entire stay, not the HAC.
2. Exception: DVT/PE after certain orthopedic procedures is not considered a HCAC when it involves total knee replacement and total hip replacement for Medicaid pediatric and obstetric populations. For our analysis, we used the Medicare HAC list, which does not make this distinction.
3. List of health care-acquired conditions based on Medicaid final rule Federal Register 76:108 (June 6, 2011), effective 07/01/2011.
4. Diagnoses updated based on Medicare IPPS final rule *Federal Register* 76:160 (August 18, 2011), pp. 51511-51512, effective 10/1/2011.
5. UTI= urinary tract infection; CABG= coronary artery bypass graft; DVT= deep vein thrombosis; PE= pulmonary embolism.
6. Data include non-designated public hospitals (which were excluded from the dataset used to set the DRG base prices for July 1, 2013). NDPHs will transition to DRG payment starting with admissions beginning on January 1, 2014.

While the potential impact to Medi-Cal is negligible, there is still a federal regulatory requirement to implement a change to the inpatient hospital payment method to assure that HCACs do not increase payment to hospitals.

The first step is to begin collecting the present-on-admission indicators. Hospitals are accustomed to reporting this information to Medicare, so this should not present a hardship. The MMIS will be modified to capture and store the POA indicators related to all diagnosis and procedure codes submitted on the claim.

For DRG hospitals, DHCS implemented the 3M™ Hospital-acquired Condition (HAC) Utility supplied with the APR-DRG grouper.[105] The HAC utility supports the Medicaid list of HCACs. This utility identifies and removes HCAC diagnoses and/or procedure codes from claims that are identified as health care-acquired conditions developed during a hospital stay (POA indicator value of N or U - Not present or Unable to determine).

In addition, Medi-Cal identified exception criteria for two HCAC categories when the beneficiary is less than 21 years of age, namely, vascular-catheter associated infection and surgical site infection (mediastinitis, following pediatric cardiac surgery). DHCS will determine whether an exception is warranted based on clinical review of each case. To accommodate this process, these claims will be priced ignoring the presence of the HCAC. When a claim is found to have a HCAC in one of these two categories and the beneficiary is under the age of 21, the claim will pay in full and post payment review will be performed to determine if the HCAC warrants payment reduction. A new field to capture HCAC category will be added at the claim header level and a new system list will be added to CA-MMIS to list these exceptional HCAC categories.

On October 1 of each year, we can expect potential changes to the list of HCAC categories as well as to the diagnosis and procedure codes included in each category.[106] The HAC utility supports the annual changes made by CMS to the list of HCACs. To maintain compliance, 3M releases new versions of the HAC Utility which will be installed in CA-MMIS on a yearly basis. Medi-Cal will use version 30 of the HAC utility with the implementation of the new DRG payment method.

Erroneous Surgeries

In addition to the Medicaid HCAC list, the Medicaid HCAC regulations also require states to adopt the Medicare nonpayment policy regarding three erroneous surgeries. In January 2009, Medicare issued three National Coverage Determination (NCD) memoranda on the coverage of erroneous surgeries on Medicare patients. Essentially, Medicare does not cover the procedure when the practitioner erroneously performs: 1) the wrong procedure altogether; 2) the correct procedure but on the wrong body part; or 3) the correct procedure but on the wrong patient.[107] Medicare's coverage provisions include:[108]

- Hospitalizations and other services related to these non-covered procedures are not covered, including services in the operating room and providers who could bill for operating room services.

- A provider cannot shift financial liability for the non-covered services to the beneficiary, primarily because the beneficiary's consent would not have met the required criteria under Medicare for a valid consent.

- The policy applies to hospital inpatient claims, practitioner, ambulatory surgical centers, hospital outpatient, and other appropriate types of bill.

Table 4.10.1.3 provides coding information to identify claims with the three erroneous surgeries. For the list of erroneous surgeries, there were zero incidences in the CY 2009 analytical dataset. To address this federal requirement for DRG hospitals, DHCS implemented a general approach similar to Medicare with some modifications as follows:

1. In the existing CA-MMIS diagnosis table, set diagnosis codes E8765, E8766, and E8767 to suspend to the fiscal intermediary for manual review since they represent the minimum requirement under the rule. If it is determined that the wrong surgery was performed, no payment should be made for these services and services directly related to the wrong surgery.
2. Depending on the results of the quality review, payment for all or part of the claim could be disallowed for the inpatient claim and any other related claims.
3. CA-MMIS will suspend these claims only if diagnosis codes E8765, E8766, and E8767 are listed as the primary or first secondary diagnosis code on the claim. DRG hospitals will continue to report erroneous surgeries manually to DHCS for post-payment review, in the same manner as all other hospitals do now.

Table 4.10.1.3

Never Events or Erroneous Surgeries Affected Claims

Erroneous Surgery	ICD-9-CM Diagnosis E-codes	UB-04 & X12N 837I	CMS1500 & X12 837P	Crossovers (Profess/ Instit)	Payment Impact
Surgery – wrong body part	E876.5 - Performance of wrong operation (procedure) on correct patient	Y	Y	Y	No payment for the procedure and related services
Surgery – wrong patient	E876.6 - Performance of operation (procedure) on patient not scheduled for surgery	Y	Y	Y	No payment for the procedure and related services
Surgery – wrong procedure	E876.7 - Performance of correct operation (procedure) on wrong side/body part	Y	Y	Y	No payment for the procedure and related services
Erroneous Surgery	**CPT/HCPCS Modifiers**				
Surgery – wrong body part	PA - Surgical or other invasive procedure on wrong body part		Y	Y	No payment for the procedure and related services
Surgery – wrong patient	PB - Surgical or other invasive procedure on wrong patient		Y	Y	No payment for the procedure and related services
Surgery – wrong procedure	PC - Wrong surgery or other invasive procedure on patient		Y	Y	No payment for the procedure and related services

Notes:

1. CMS Manual System Pub 100-04 Medicare Claims Processing, Transmittal 1819, September 29, 2009.
2. E-codes are not valid principal diagnosis code (FL67). May be reported in FL 67A-Q, however Ingenix UB-04 Editor states e-codes are to be reported in FL72a-c. If reported in FL67A-Q must have POA.
3. The simulation dataset included no claims where an erroneous surgery diagnosis code was reported.

4.10.2 Other Quality Measures

At this time, there are no firm plans to go beyond the HCAC program in measuring and potentially adjusting payment for other quality measures. More sophisticated measures,

such as measurement of potentially preventable readmissions and complications, typically require casemix adjustment in order to be fair to hospitals. The use of APR-DRGs by DHCS is consistent with what has been done in other states such as New York, Maryland, Florida, Utah and Texas.

5 Treatment Authorization, Coding and Billing

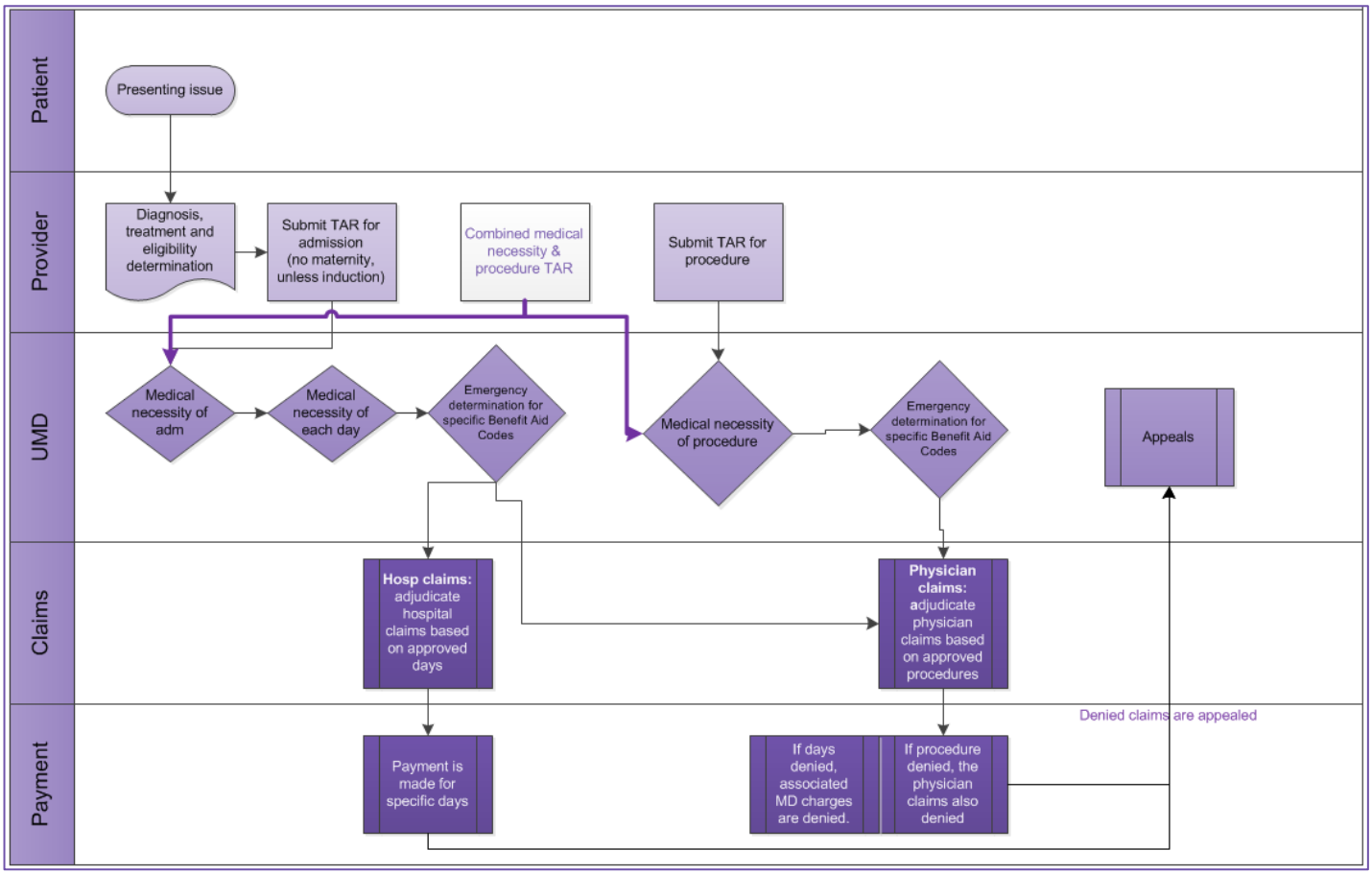
5.1 Treatment Authorization Request (TAR)

Incentives to improve the efficiency of hospital admissions are inherent to DRG payment methods. Under the current payment method, almost all inpatient days (except normal newborns, two days of a vaginal delivery stay and four days of a cesarean delivery stay) are subject to approval of the inpatient day through the TAR process. In addition, specific procedures are subject to the procedure TAR and administrative days are subject to the daily TAR. See Chart 5.1.1 for a diagram of the current TAR process.

Beneficiaries covered by the CCS and the GHPP programs are subject to a similar process called service authorization review (SAR). We use the term TAR to refer to both TAR and SAR.

Chart 5.1.1

Current TAR Process



The inherent incentives to promote efficiency under DRG payment will allow a substantive decrease in the inpatient TAR process. Table 5.1.2 shows our estimate that approximately 1.1 million days would require TAR in FY 2013-14 under the current payment method. Under DRG payment, where hospitals themselves have the incentive to monitor the medical necessity of each day of care, we expect TAR to be required on only about 120,000 days, a reduction of about 950,000 days.[109] Table 5.1.1 summarizes the changes to the TAR process under DRG payment. Changes in the TAR process that result in a reduction of effort are highlighted in the "Recommended" column.

In the "Other" category of Table 5.1.1, each hospital day will continue to be reviewed for administrative days (Levels 1 and 2) and rehabilitation. In addition, general acute care admissions for restricted aid codes remain subject to a daily TAR/SAR. Each of these has specific reasons why a daily authorization is warranted. For example, administrative days do not apply under a DRG method since the person has no medical necessity for continued acute inpatient care. (Providers are required to submit administrative days on claims separate from acute-care days.) For restricted aid codes, hospitalizations and procedures need to meet emergency criteria which cannot be evaluated through a DRG payment method or by simply looking at the medical necessity for the admission. Therefore, a daily review is necessary to determine when a hospital stay is no longer

related to an emergency condition and to determine if specific procedures do not meet emergency criteria.

Reviews for medical and surgical procedures for all aid codes will continue for the identified list of procedures.

Under a DRG payment method, monitoring the risk of early discharge and inappropriate readmission is critical. Therefore, an enhancement to the TAR process will occur at the point of authorizing the medical necessity of the admission. See Section 6.6.

Table 5.1.1

TAR/SAR Entry Business Requirements for Inpatient Claims after DRG Pricing Is Implemented

Type of Stay	TAR/SAR Approach Current	TAR/SAR Approach New	Paid under DRGs
General Acute Care – Full Scope			
General acute care inpatient stay – complete stay	TAR every day	TAR admission only	Yes
General acute care inpatient stay – interim claim	TAR every day	TAR admission only	Paid per diem (until final claim is submitted), then paid by DRG for final payment
CCS and GHPP			
CCS and GHPP beneficiaries – complete stay	SAR every day	SAR admission only	Yes
CCS and GHPP beneficiaries – interim claim	SAR every day	SAR admission only	Paid per diem (until final claim is submitted), then paid by DRG for final payment.
General Acute Care- Restricted Aid Codes			
General acute care inpatient stay – complete stay	TAR every day, including review to ensure all services are emergency services.	No change; TAR every day, including review to ensure all services are emergency services.	Yes – With review for potential payment cutback if any days are denied.
General acute care inpatient stay – interim claim	TAR every day, including review to ensure all services are emergency services.	No change; TAR every day, including review to ensure all services are emergency services.	Paid per diem (until final claim is submitted), then paid by DRG for final payment. With review for potential payment cutback if any days are denied.
Obstetrics (OB) with Delivery – Full Scope or Restricted			
OB admission with delivery	No TAR required	No TAR required	Yes
OB with induction day before delivery	TAR every day	No TAR required	Yes
OB prolonged stays- vaginal greater than 2 days; c-sect greater than 4 days	TAR every day	No TAR required	Yes
Obstetrics (OB) non-delivery			
OB admission non-delivery – full scope	TAR every day	TAR admission only	Yes
OB admission non-delivery with restricted aid codes	TAR every day	TAR every day	Yes
Other			
Well-baby stays admission - full scope and restricted aid codes (maternal aid codes used)	Not applicable – well-baby (newborns) were billed on the mother's claim	No TAR required	Yes – separate claim
Neonate (sick baby) stays admission – full scope and restricted aid codes (maternal aid codes used)	TAR every day	TAR admission only	Yes
Designated public hospitals and non-designated public hospitals	Separate process	Continue separate process	No
Administrative day level 1	TAR every day	TAR every day	No - paid per diem
Administrative day level 2 (referred to as subacute)	TAR every day (acute days currently given)	TAR every day	No – paid per diem
Rehabilitation stays - Acute Intensive Inpatient Rehab (AIIR)	TAR every day	TAR every day	No – paid per diem

Notes:

1. The SAR system is a DHCS-supported system and system modifications are the responsibility of DHCS staff.
2. Outliers will be monitored using an analytical oversight process. DHCS may decide to focus TAR review for outliers as the findings indicate.
3. Data exclude designated public hospitals and include non-designated public hospitals (which were excluded from the dataset used to set the DRG base prices for July 1, 2013). NDPHs will transition to DRG payment starting with admissions beginning on January 1, 2014.

Table 5.1.2
Estimated Impact of DRG Payment Method on Treatment Authorization Requirements on Length of Stay

	2009 Analytical Dataset				2013 Simulation Dataset Previous Payment Method				2013 Simulation Dataset DRG Payment Method			
Client Benefit Category	**Total Admits**	**Admit RqTAR**	**Total Days**	**Days Rq TAR**	**Total Admits**	**Admit Rq TAR**	**Total Days**	**Days Rq TAR**	**Total Admits**	**Admit Rq TAR**	**Total Days**	**Days Rq TAR**
Full Benefits												
Deliveries--cesarean	10,960	-	38,671	-	9,155	-	32,472	-	9,155	-	32,472	-
Deliveries--vaginal	22,744	-	48,320	2,832	18,891	-	40,443	2,661	18,891	-	40,443	-
Newborns--normal	36,202	-	89,297	-	30,515	-	77,405	-	30,515	-	77,405	-
Newborns--sick	6,194	6,194	165,998	165,998	5,954	5,954	161,420	161,420	5,954	5,954	161,420	-
Other obstetric--medical	4,128	4,128	10,681	10,681	3,361	3,361	8,426	8,426	3,361	3,361	8,426	-
Other obstetric--procedural	672	672	1,425	1,425	577	577	1,188	1,188	577	577	1,188	-
Med/surg--medical	163,841	163,841	801,748	801,748	98,151	98,151	486,010	486,010	98,151	98,151	486,010	-
Med/surg--procedural	41,409	41,409	368,349	368,349	28,425	28,425	235,736	235,736	28,425	28,425	235,736	-
Rehabilitation	1,508	1,508	26,144	26,144	880	880	16,213	16,213	880	880	16,213	16,213
Subacute days	Note 1											
Subtotal	**287,658**	**217,752**	**1,550,633**	**1,377,177**	**195,909**	**137,348**	**1,059,313**	**911,654**	**195,909**	**137,348**	**1,059,313**	**16,213**
Limited Benefits												
Deliveries--cesarean	36,833	-	128,047	-	36,832	-	128,045	-	36,832	-	128,045	-
Deliveries--vaginal	73,387	-	152,446	5,672	73,387	-	152,446	5,672	73,387	-	152,446	-
Newborns--normal	108,228	-	241,704	-	108,227	-	241,703	-	108,227	-	241,703	-
Newborns--sick	4,306	4,306	45,470	45,470	4,306	4,306	45,470	45,470	4,306	4,306	45,470	-
Other obstetric--medical	7,392	7,392	18,545	18,545	7,392	7,392	18,545	18,545	7,392	7,392	18,545	18,545
Other obstetric--procedural	1,297	1,297	2,717	2,717	1,297	1,297	2,717	2,717	1,297	1,297	2,717	2,717
Med/surg--medical	13,132	13,132	51,369	51,369	13,129	13,129	51,359	51,359	13,129	13,129	51,359	51,359
Med/surg--procedural	6,184	6,184	32,388	32,388	6,164	6,164	32,312	32,484	6,164	6,164	32,312	32,312
Rehabilitation	53	53	352	352	72	72	426	426	72	72	426	426
Subacute	Note 1											
Subtotal	**250,812**	**32,364**	**673,038**	**156,513**	**250,806**	**32,360**	**673,023**	**156,673**	**250,806**	**32,360**	**673,023**	**105,359**
Total days	**538,470**	**250,116**	**2,223,671**	**1,533,690**	**446,715**	**169,708**	**1,732,336**	**1,068,327**	**446,715**	**169,708**	**1,732,336**	**121,572**

Notes:

1. Certain subacute days were paid as acute days in 2009 but will be paid as admin days Level 2 in 2013. The number of days is believed to be relatively low but an exact estimate isn't available.
2. TAR requirements also exist for specific procedures for all beneficiaries.
3. Under DRG payment we assume that non-delivery stays for clients with limited benefits will require TAR in order to check that any procedures qualify as emergencies.
4. Stay and day counts are slightly understated because of the omission of incomplete stays from the analytical dataset. This table also excludes days at designated public hospitals and administrative days.
5. For clients with limited benefits, the most common non-delivery procedures are appendectomies and cholecystectomies. See Summary of Analytical Dataset, Table 4.4.7. The most common medical DRGs are chest pain, other pneumonia, kidney and urinary tract infections, septicemia and dissemination infections, and disorders of the gallbladder.
6. Data include stays and days at non-designated public hospitals (NDPHs). NDPHs were excluded from the dataset used to set the DRG base prices for July 1, 2013. NDPHs will transition to DRG payment starting with admissions beginning on January 1, 2014.

5.2 Late Charges and Interim Claims

Because DRG payment is per complete stay, Medicare and other DRG payers typically do not accept claims that do not represent a complete stay. Effective with the implementation of the APR-DRG payment method, the bill types accepted are 112 and 113. The bill types not accepted are 110, 114, 115 and 117. (Table 5.2.1). Medi-Cal previously accepted these bill types.

Table 5.2.1 Inpatient Hospital Bill Types
110—Non-payment or zero claim
111—Admit-through-discharge
112—Interim—first claim
113—Interim—continuing claim
114—Interim—last claim
115—Late charges only
117—Replacement of prior claim

5.2.1 Late Charges

A late charges claim raises the risk of duplicate payment because there are two paid claims with the same dates of service. Any analysis of utilization would also be confounded because the dataset has two paid claims for the same stay. When it is necessary to bill for late charges, a hospital should instead void the original claim and submit a new claim.

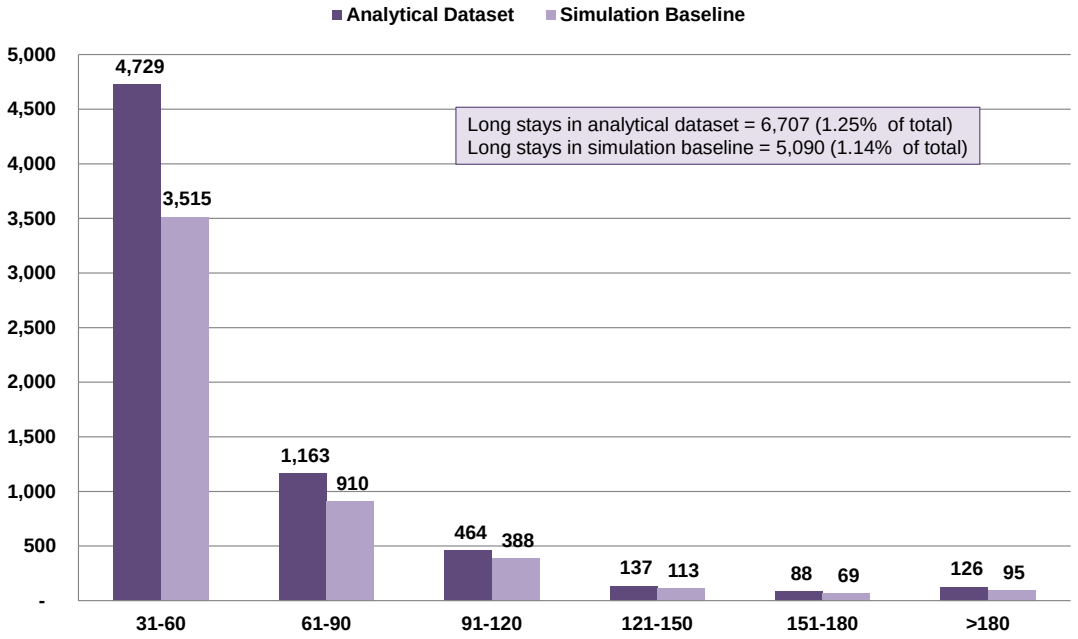
5.2.2 Interim Claims

Interim claims require more consideration. When payment is per diem or at a percentage of charges,[110] as it has been in California, a hospital can request payment as often as it chooses to submit an interim claim. Under DRG payment, there is no reason for the payer to accept interim claims in the vast majority of cases. Only if a stay is exceptionally long can an argument be made that the hospital needs cash flow before the full payment for the stay is ultimately received on a DRG basis.

For purposes of this analysis, we defined “exceptionally long” as more than 30 days. The Department has since decided to set the interim billing threshold at 29 days. The numbers in this analysis were calculated earlier using the 30-day threshold.

Chart 5.2.2.1 shows that one percent of stays would fall into this category. In 2009 the actual number was 6,707 stays; after simulating the impact of the transition to managed care now under way, the number would be 5,090. Of these 5,090 stays, 3,515 were fewer than 60 days. Nevertheless, there were 1,575 stays that extended to three, four or more months; indeed, there were two stays that were almost three years in length. Table 5.2.2.1 shows that the most common situations were sick newborns and patients on ventilators.

Chart 5.2.2.1
Long Stays (LOS > 30 Days)



Notes:
1. "Simulation Baseline" dataset excludes stays in 2009 that are modelled as transitioning to managed care.
2. Numbers shown in this chart were calculated before the Department decided on a theshold of 29 days.

Table 5.2.2.1
Long Stays in the Simulation Baseline Dataset by Base APR DRG

31-60 Days		**61-90 Days**		**91-120 Days**	
634 Neo Bwt >2499G w Maj Resp Cond	367	634 Neo Bwt >2499G w Maj Resp Cond	125	634 Neo Bwt >2499G w Maj Resp Cond	57
720 Septicemia & Disseminated Inf	166	593 Neo Bwt 750-999G w/o Maj Proc	84	589 Neo Bwt <500G or <24 Wks	36
005 Trach, MV 96+ Hrs, w/o Ext Proc	160	005 Trach, MV 96+ Hrs, w/o Ext Proc	59	593 Neo Bwt 750-999G w/o Maj Proc	35
004 Trach, MV 96+ Hrs, w Ext Proc	158	004 Trach, MV 96+ Hrs, w Ext Proc	45	631 Neo Bwt >2499G w Oth Maj Proc	19
614 Neo Bwt 1500-1999G	118	633 Neo Bwt >2499G w Maj Anomaly	28	588 Neo Bwt <1500G w Maj Proc	18
All other DRGs	2,546	All other DRGs	569	All other DRGs	223
Total	**3,515**	**Total**	**910**	**Total**	**388**
121-150 Days		**151-180 Days**		**More than 180 Days**	
588 Neo Bwt <1500G w Maj Proc	24	588 Neo Bwt <1500G w Maj Proc	6	005 Trach, MV 96+ Hrs, w/o Ext Proc	9
631 Neo Bwt >2499G w Oth Maj Proc	9	005 Trach, MV 96+ Hrs, w/o Ext Proc	6	004 Trach, MV 96+ Hrs, w Ext Proc	9
634 Neo Bwt >2499G w Maj Resp Cond	9	630 Neo Bwt >2499G w Maj CV Proc	5	588 Neo Bwt <1500G w Maj Proc	8
593 Neo Bwt 750-999G w/o Maj Proc	6	593 Neo Bwt 750-999G w/o Maj Proc	4	631 Neo Bwt >2499G w Oth Maj Proc	6
004 Trach, MV 96+ Hrs, w Ext Proc	5	130 Resp Sys Diag w MV 96+ Hrs	4	710 Inf & Parasit Dis Incl HIV w O.R. Proc	5
All other DRGs	60	All other DRGs	44	All other DRGs	58
Total	**113**	**Total**	**69**	**Total**	**95**

Notes:

1. Data refer to the simulation baseline dataset. Non-designated public hospitals are included in this table. NDPHs were excluded from the dataset used to set the DRG base prices for July 1, 2013. NDPHs will transition to DRG payment starting with admissions beginning on January 1, 2014.
2. Total long stays in the simulation baseline dataset = 5,090.
3. Figures were calculated using an interim billing threshold of 30 days; the Department has since changed the threshold to 29 days.
4. Data are the responsibility of Xerox and should not be attributed to any California state agency.

Although long stays represented just 1 percent of all stays, they were of course unusually expensive. Table 5.2.2.2 shows that they represented 18 percent of all days and 20 percent of total hospital cost. Moreover, long stays tended to be concentrated in the tertiary care hospitals that treat sick newborns, ventilator patients, and other seriously ill people. For the 25 hospitals with the highest numbers of long stays, the long stays represented 28 percent of their days and 30 percent of their cost.

Essentially, the decision whether to allow payment for interim claims is a trade-off between the following.

- ***Cost and complexity of MMIS changes.*** Although interim claim pricing would affect only about 1 percent of claims, the cost and complexity stems from the need for the per diem pricing logic, for “duplicate check” logic that identifies situations where the hospital does not replace or void all interim claims, for additional MMIS edits, and for changes to “downstream” post-pricing functions such as reporting, remittance advices, and claim inquiry functionality used by provider relations and state staff. As with all computer systems, added complexity also increases the potential for errors, confusion and delay in implementation. An additional consideration is that the legacy CA-MMIS system will be replaced by California Health Enterprise in 2017. In the interim, DHCS seeks to make as few changes as possible to the legacy system.

- ***Benefits of cash flow to hospitals.*** Long stays tend to be most prevalent at specific hospitals, as shown in Table 5.2.2.2. For these hospitals, long stays can represent 30 percent to 40 percent or more of all payments. In practice, many of these hospitals also provide specialized services to pediatric patients, where Medi-Cal represents a substantial share of the market. It is therefore possible that delays in cash flow could jeopardize access to care.

Table 5.2.2.2
Long Stays by Hospital

	Long Stays (>30 Days)			Long Stays as % of All Stays		
Hospital	Stays	Days	Est. Cost	Stays	Days	Est. Cost
Loma Linda Univ Med Ctr	416	26,702	$53,564,276	5%	41%	41%
Child Hosp-LA	350	21,564	$57,417,141	6%	42%	39%
Child Hosp-Ctrl CA	283	18,218	$39,506,449	5%	39%	37%
E & L Miller Child Hosp	221	14,983	$36,667,775	3%	35%	40%
Rady Child Hosp-San Diego	139	9,513	$33,333,880	3%	33%	31%
Child Hosp & Rsrch Ctr	134	9,694	$26,694,562	3%	35%	34%
LSPackard Child H-Stanford	128	8,623	$43,301,521	3%	31%	36%
Child Hosp-Orange Co	125	7,140	$22,682,020	4%	30%	30%
Pomona Vly Hosp Med Ctr	124	7,278	$13,611,250	1%	20%	23%
Sutter Gen Hosp	120	7,251	$11,614,420	2%	27%	22%
Com Reg Med Ctr-Fresno	109	5,802	$11,440,408	1%	19%	20%
Alta Bates-Alta Bates	99	5,755	$8,501,368	2%	25%	21%
Doctors Med Ctr	88	4,785	$8,185,725	2%	23%	24%
Citrus Vly Med Ctr-QV	87	5,045	$6,751,714	1%	19%	26%
St Francis Med Ctr	78	4,095	$5,861,848	1%	12%	11%
CA Hosp Med Ctr-LA	71	4,530	$6,819,279	1%	17%	17%
Sharp Mary Birch-Women	68	4,210	$4,865,092	2%	32%	30%
City of Hope-Helford Cl Rsrch Hosp	57	2,890	$10,407,187	9%	44%	44%
Cedars Sinai Med Ctr	57	3,157	$16,622,978	2%	21%	27%
Desert Reg Med Ctr	56	2,875	$6,590,703	2%	20%	26%
St Bernardine Med Ctr	55	3,162	$5,545,504	2%	29%	29%
Good Samaritan-LA	54	2,878	$7,333,175	1%	14%	24%
Hollywood Presby Med Ctr	53	2,566	$4,279,572	1%	9%	15%
Mercy San Juan Hosp	52	2,819	$5,626,696	2%	24%	21%
White Mem Med Ctr	51	2,940	$4,372,993	1%	12%	12%

Table 5.2.2.2

Long Stays by Hospital

Hospital	Long Stays (>30 Days)			Long Stays as % of All Stays		
	Stays	Days	Est. Cost	Stays	Days	Est. Cost
Top 25 hospitals	**3,075**	**188,475**	**$451,597,538**	**2%**	**28%**	**30%**
All other hospitals	2,015	117,282	$243,928,890	1%	11%	13%
All hospitals	**5,090**	**305,757**	**$695,526,428**	**1%**	**18%**	**20%**

Notes:

1. Data refer to the simulation dataset. Non-designated public hospitals are included in this table. NDPHs were excluded from the dataset used to set the DRG base prices for July 1, 2013. NDPHs will transition to DRG payment starting with admissions beginning on January 1, 2014.
2. Data are the responsibility of Xerox and should not be attributed to any California state agency.
3. Figures were calculated using an interim billing threshold of 30 days; the Department changed the threshold to 29 days.

On balance, DHCS allows payment on interim claims, though only for stays that are exceptionally lengthy. The length of stay threshold was set at greater than 29 days. Before submitting an interim claim, the hospital must have an approved admission TAR for the claim to pay. Submission of interim claims would be voluntary on the part of the hospital, but if interim claims were submitted then the hospital would be required to submit a final admit-through-discharge claim when the patient was discharged. The process works as follows:

1. The MMIS accepts interim claims (bill types 112 and 113) so long as the day span on the claim exceeded 29 days and the patient discharge status was 30 (still a patient).
2. These claims are processed for payment at a statewide per diem rate; the level was set low enough to avoid an incentive for hospitals to accept the interim payment and not submit the final claim for DRG payment. For the long stays in Table 5.2.2.2, average payment per day was $1,645, so the interim per diem amount will be noticeably lower than that. DHCS has set the interim claim per diem at $600 for July 1, 2013.
3. When the patient is discharged, the hospital will submit a single admit-through-discharge claim (bill type 111). Hospitals will not send void claims. The claims payment system will adjust the final DRG payment by subtracting any interim claim payments from the final payment.

Bill type 114 will not be accepted. In response to a question about the potential impact on small community hospitals, we performed an analysis that found that 96 percent of the long stays occurred in large hospitals (4,910 out of 5,090 long stays), with a median length of stay of 52 days. Fewer than one percent of the long stays occurred in small hospitals (25 out of 5,090 long stays), with a median length of stay of 44 days for this group. When we looked at hospitals under 100 beds, our study showed that in most cases hospitals with long stays were specialty hospitals or hospitals with very few claims overall, i.e., not small community hospitals serving noticeable numbers of Medi-Cal patients. We therefore believe it is very unlikely that making interim payments only for claims exceeding 29 days would hurt access to care in small community hospitals.[111]

5.3 Related Outpatient Services

No changes are anticipated in the definition of which outpatient services are included within the definition of an inpatient stay.

Medi-Cal will continue to require that emergency services rendered on the same date as admission or within 24 hours prior to admission must be billed on the inpatient claim with the appropriate ancillary and revenue codes. Emergency services on the same date of admission or within 24 hours prior to admission will not be separately reimbursable.[112]

Other outpatient services (e.g., lab, EKG, imaging) provided before admission may be billed separately if they do not fall within the definition of emergency services.

5.4 Administrative Days

Some states make payment for administrative days. Generally, administrative days are defined as the days of service provided to beneficiaries who no longer require acute hospital care, but need nursing home placement or other subacute or post-acute care that is not available at the time of discharge.

Under the previous payment method, administrative days approved through the TAR process were paid at a statewide per diem rate. In addition, separate payment was allowed for specific ancillary services. In situations where a patient did not need acute care but did need more care than an administrative day, DHCS authorized payment at the acute care level because no other mechanism existed. (If a patient could be transferred to a separate sub-acute facility, then that was the preferred path.)

Under the DRG payment method, DHCS implemented two levels of administrative days.

- ***Administrative Day Level 1***. Level 1 uses the same policy as administrative days under the previous method. Admission and each day continue to require a TAR/SAR. Payment is made outside the DRG method, with rates and bundling policies determined by DHCS. In CA-MMIS, a claim for Level 1 administrative days is identified through the presence on the claim of revenue code 169 (room and board, other), as was true under the previous payment method.

- ***Administrative Day Level 2***. Level 2 is a new level, parallel to Level 1 except at a higher rate. The bundling policy is the same as for Level 1 days. DHCS set the criteria to distinguish Level 1 care from Level 2. (Please see DHCS's bulletin, *DRG Implementation: Rehabilitation Services and Administrative Level 2 Days,* March 28, 2013) Level 2 days are identified through the presence on the claim of revenue codes 190 (sub-acute pediatric), where the age of the beneficiary is less than 21, and 199 (sub-acute adult), where the age of the beneficiary is greater than or equal to 21. Admission and each day require a TAR/SAR.[113]

  With the implementation of the DRG payment method, DHCS established payment for administrative day level 2 at the lower of the hospital-specific rate already established or the statewide rate. The statewide per diem rates are: $894.60 for pediatric beneficiaries and $896.67 for adult beneficiaries.[114]

DHCS has established limits on payment of specific ancillary services provided during administrative day level 2 days. Ancillary services that are reimbursable when billed with administrative day level 2 days are listed in the *Ancillary Codes* section of the Medi-Cal Provider Manual (identified with a dagger (†)).[115]

The previous billing requirement that administrative days be billed on a separate claim continues to be in effect.[116] These claims are billed separately from other acute care claims and revenue codes.[117]

In CA-MMIS claims adjudication, the presence of revenue codes 169, 190 or 199 on the claim diverts the claim from the DRG pricing logic and puts it into the existing pricing logic for administrative days, except that now there are both Level 1 and Level 2 per diem rates. See the pricing flow chart in Section 7.14.

5.5 Rehabilitation Stays

Rehabilitation is typically a special topic in the design of a DRG payment method for any Medicaid program. The nature of rehabilitation makes it closer to post-acute care than to acute care. As well, Medicare uses a separate payment method for rehabilitation stays, regardless of whether the care is provided by a specialty rehabilitation facility or a general hospital. For Medicaid programs, a separate payment method is usually impractical because of the small volume of Medicaid rehabilitation stays.

“Rehabilitation” is also open to alternative operational definitions, for example by treating facility, APR-DRG, principal diagnosis, procedure code, or revenue code. Table 5.5.1 shows a summary of rehabilitation care using a broad definition. For this analysis, we used the CY 2009, simulation baseline dataset that included 1,240 Medi-Cal fee-for-service rehabilitation stays, representing 0.3 percent of all stays. Medi-Cal payments were $38.1 million, representing 1.4 percent of total payments. We note that rehabilitation stays, as defined by DHCS, were subsequently excluded for the purpose of setting the DRG base prices for July 1, 2013.

Given the small volume (and Medicaid’s typically small role in the market for rehabilitation care) DHCS adopted a simple payment method as follows:

- ***Definition of rehabilitation.*** In keeping with past CA-MMIS practice, a “rehabilitation” stay is identified by the presence of an accommodation revenue code for rehabilitation (e.g., 118, 128, 138, and/or 158). Note that this definition covers claims from both specialty facilities and general hospitals. Claims showing revenue codes for both rehabilitation and non-rehab accommodation will be denied. If a stay included both acute care and rehabilitation care, the hospital should submit two claims, one for acute care to be paid by DRG and the other for rehabilitation care to be paid per diem.

- ***Treatment authorization.*** All admissions for rehabilitation and all rehabilitation days require treatment authorization (TAR) or service authorization (SAR), as was true under the previous payment method. DHCS will continue to authorize only rehabilitation care only at facilities with licensed rehabilitation beds.

- ***Per diem payment.*** Payment is a per diem amount, as it was under the previous payment method. The per diem is multiplied by the number of days authorized on the required TAR or SAR.
- ***Determination of the per diem rate.*** In determining the per diem rate, DHCS considered available options, for example, a statewide per diem rate, Medicare rates for inpatient rehabilitation facilities, and methodologies used by other Medicaid programs.[118] In developing the rehabilitation per diem rates effective with the implementation of the DRG payment method, DHCS used a comprehensive paid claims dataset representing all days billed and paid with the revenue codes 118, 128, 138, and 158 for the calendar year 2011. Payments for such claims were then trended forward to July 1, 2013, based upon hospital-specific increases in Medi-Cal SPCP contract rates or non-contract trend factors as utilized in the Quality Assurance Fee (QAF) model.[119]

  Based on this approach, hospital-specific base rates for rehabilitation services were established for DRG hospitals. This per diem rate was then adjusted by the wage index of each specific hospital in the same manner as the DRG base price is adjusted. The wage area adjustment applies to 68.8 percent of the rate.[120] [121]

  – Rehabilitation services provided to beneficiaries under the age 21 consist of a per diem rate of $1,841, adjusted by the hospital-specific wage index.

  – Rehabilitation services provided to beneficiaries age 21 and over consist of a per diem rate of $1,032, adjusted by the hospital-specific wage index.[122]

  For DRG hospitals that provided services to both adult and pediatric populations, a specific per diem was calculated to blend both rates above based on the allocation of days provided to each age category. This per diem rate was then adjusted by the hospital-specific wage index. The hospital specific blend of pediatric and adult rehabilitation services will be updated based on the blend in the most recent year for which data is available. Rates will not be retroactively reconciled based on actual experience.[123]
- ***Denial of claims that group to rehabilitation APR-DRGs.*** If a hospital submitted a claim that did not include a rehabilitation revenue code, it would flow through the DRG grouping and pricing logic. If the claim grouped to rehabilitation DRG 860 then it would be denied, with instructions to the hospital to resubmit the claim with a rehabilitation revenue code so it would price as rehabilitation.

Table 5.5.1
Rehabilitation Stays by DRG

APR DRG	Stays	Days	Charges	Est Cost	Baseline Paymt	Cost /Chg	Pay/Cost	AvgLOS	Avg Chg	AvgCost	AvgPay
All Rehabilitation DRGs											
860-1 Rehab	195	3,459	$15,754,060	$3,887,789	$5,680,484	25%	146%	17.7	$80,790	$19,937	$29,131
860-2 Rehab	454	8,116	$38,844,274	$9,133,932	$12,967,277	24%	142%	17.9	$85,560	$20,119	$28,562
860-3 Rehab	130	3,002	$13,522,454	$3,668,669	$5,024,355	27%	137%	23.1	$104,019	$28,221	$38,649
860-4 Rehab	4	118	$454,445	$134,325	$197,565	30%	147%	29.5	$113,611	$33,581	$49,391
850-1 Rehab Proc	92	501	$5,105,978	$1,397,959	$1,076,622	27%	77%	5.4	$55,500	$15,195	$11,702
850-2 Rehab Proc	50	864	$7,477,238	$1,752,832	$1,512,687	23%	86%	17.3	$149,545	$35,057	$30,254
850-3 Rehab Proc	21	420	$3,216,675	$957,520	$939,055	30%	98%	20.0	$153,175	$45,596	$44,717
850-4 Rehab Proc	6	159	$1,344,942	$399,236	$349,441	30%	88%	26.5	$224,157	$66,539	$58,240
Total	**952**	**16,639**	**$85,720,067**	**$21,332,261**	**$27,747,486**	**25%**	**130%**	**17.5**	**$90,042**	**$22,408**	**$29,147**

Table 5.5.1
Rehabilitation Stays by DRG

APR DRG	Stays	Days	Charges	Est Cost	Baseline Paymt	Cost /Chg	Pay/Cost	AvgLOS	Avg Chg	AvgCost	AvgPay
All Rehabilitation Stays											
Rehab DRGs	952	16,639	$85,720,067	$21,332,261	$27,747,486	25%	130%	17.5	$90,042	$22,408	$29,147
Other DRGs	288	14,806	$53,578,117	$11,225,580	$10,326,207	21%	92%	51.4	$186,035	$38,978	$35,855
Total Rehab Stays	**1,240**	**31,445**	**$139,298,184**	**$32,557,840**	**$38,073,694**	**23%**	**117%**	**25.4**	**$112,337**	**$26,256**	**$30,705**
Total All Stays	446,715	1,732,336	$14,508,005,748	$3,422,225,747	$2,632,095,148	24%	77%	3.9	$32,477	$7,661	$5,892
% of All Stays	**0.3%**	**1.8%**	**1.0%**	**1.0%**	**1.4%**						

Notes:

1. For the purpose of analysis of the payment method, rehab stays were defined broadly by (A) all claims that grouped to APR-DRG 850 and 860, or (B) had a principal diagnosis code of V57.0, V57.1, V57.21, V57.22, V57.3, V57.4, V57.81, or (C) had diagnosis codes V57.89 or V57.9 or had procedure codes 93.85 or 93.89 on the claim or (D) any hospital identified as "rehabilitation" by name. Note that the final DHCS decision was to define rehabilitation by the presence of revenue codes 118, 128, 138, and/or 158.
2. Data is based on the simulation dataset. See Section 1.13 for a description of the simulation baseline dataset.
3. Non-designated public hospitals are included in this table. Non-designated public hospitals are included in this table. NDPHs were excluded from the dataset used to set the DRG base prices for July 1, 2013. NDPHs will transition to DRG payment starting with admissions beginning on January 1, 2014.

5.6 Remittance Advice

Under the new payment method, the paper and electronic (X12N 835) remittance advice sent to Medi-Cal hospitals will be modified to include DRG payment information. The remittance advice will display the following additional information:

- Four-digit APR-DRG code
- APR-DRG relative weight (only on the X12N 835)
- New remittance advice document (RAD) codes:
  - 0453 - APR-DRG claim zero priced due to paid claim in history
  - 0455 - a health care-acquired condition caused change in the APR-DRG code assigned to the claim
  - 0457 - payment based on assigned APR-DRG code
  - 0458 - APR-DRG interim claim payment
  - 0564 - voided APR-DRG interim claim

5.7 Billing and Eligibility for Newborns

5.7.1 Billing for Newborns

Under the previous payment method, hospitals were advised to bill for well newborns (what we call normal newborns) on the same claim as their mothers.[124] Sick babies were to be billed on their own claims. If a sick baby was not admitted to a NICU, then treatment authorization was required for treatment provided after the mother was discharged. If a baby was admitted to the NICU, then treatment authorization was required starting from the day of NICU admission. The various permutations of cesarean vs. vaginal delivery, sick mother vs. well mother, sick baby vs. well baby, and contract hospital vs. non-contract hospital resulted in 30 pages of billing instructions to hospitals.[125]

In 2009, we estimate that 127,371 normal newborns were billed on their mothers' claims, excluding babies born at designated public hospitals and babies that are modeled as transitioning to managed care as of 2013.[126] For purposes of simulating DRG payment, we created inferred claims for these babies, as described in the *Summary of Analytical Dataset,* December 2011.

Under DRG payment, billing for these services is quite different and much simpler.

- ***Separate bills.*** All babies should be billed on separate claims from their mothers. We recommended a CA-MMIS edit to deny claims that include both nursery revenue codes and labor and delivery revenue codes.

- ***Separate payment.*** Payment is calculated under the DRG methodology, depending on the separate diagnoses, procedures and discharge statuses of the mother and the baby. There are 16 APR-DRGs for deliveries and 116 APR-DRGs for care of normal newborns and sick babies.

- ***No TAR process for length of stay or induction of labor.*** Under DRGs, payment is irrespective of length of stay or whether labor was induced. Therefore, the previous TAR requirements regarding length of stay and induction of labor will no longer be needed. Treatment authorization will continue to be required for admission to neonatal intensive care. See Section 5.1.

- ***No interim claims.*** Interim claims are denied unless the length of stay exceeds 29 days. Other requirements apply to interim claims. See Section 5.2.2.

Separate claims and separate payments are consistent with the fact that the mother and the baby are separate patients with separate diagnoses, treatments, charges, length of stay, and discharge statuses. This separation also will enable greater understanding of the course of treatment and the quality of care rendered to obstetric and neonatology patients.

5.7.2 Eligibility Determination for Newborns

Claims for newborns in the first year of life may be submitted under either the baby's benefits identification card (BIC) or the mother's card. For normal newborns and other babies for whom only one claim is submitted, claims submission and payment is

straightforward, regardless of which beneficiary number is submitted. CA-MMIS distinguishes between the two individuals by birthdate. Under DRG payment, each claim will be paid based on the diagnoses and procedures appropriate for that patient.

For sick babies with long lengths of stays and interim claims, however, it will be essential that the hospital submit all claims using the same beneficiary number. Otherwise, the process of submitting and reconciling interim claims (Section 5.2.2) would not work properly. The baby's unique Medicaid identification number would be preferable, but the mother's number would be acceptable. Hospitals can help a mother obtain a BIC for her baby by completing and submitting Form MC-330, the newborn referral form. Claims submitted with both the mother's and baby's number on the interim claim for a single related neonatal stay will be denied. The baby's identification number should remain constant throughout the entire hospital stay.

5.8 Per Diem and Special Rates

As stated in Section 1.7, the DRG payment method will apply to hospital inpatient claims submitted for care in general acute care hospitals. Per diem rates were recommended for some types of stays not suited for DRG payment. Therefore, creation and maintenance of per diem rates were adopted in certain situations. With the dissolution of CMAC, these rates are established and maintained by DHCS. Special rates are already in place for level 1 administrative days. Separately payable services, supplies, and devices have a special rate addressed in this section that is not technically "per diem," but billed by unit. These rates require maintenance. Rates already exist for services, supplies, and devices which are separately payable. The list of procedure codes to be paid separately was updated after analyzing the impact (see Section 4.7). Items on this list will require separate rates. In addition, DHCS established rates for a second level of administrative day and for interim claims.

Under the previous per diem payment method, it was rather simple to pay interim claims. Under DRG payment, interim billing will only be allowed for hospital stays in which the length of stay is greater than 29 days. Since a DRG price is set based on discharge diagnoses and procedure codes, the DRG rate cannot be established during a hospitalization. Please see Section 5.2.2. A rate was established to pay this interim claim. Once the hospital stay is completed and the patient is discharged, the hospital will submit a final claim, so that the hospital stay is paid by DRG adjusted by any interim payments. Therefore, this interim claim rate has been set at an appropriate level that incentivizes the hospital to submit the final claim. If the interim per diem rate is too high, hospitals could avoid the final billing procedure. This would result in a disruption of the DRG payment method and skewed incentives for hospitals. An appropriate interim rate is critical.

Please see Table 5.8.1 for the rates that must be maintained separately from the DRG payment method.

Table 5.8.1 Per Diem and Special Rates			
PDD Section	**Rate**	**New / Existing**	**Action**
5.2.2	Interim	New	Annual review and maintenance
5.4	Administrative Level 1	Existing	Annual maintenance
5.4	Administrative Level 2	New	Annual review and maintenance of separate rates for pediatric and adult services
5.5	Rehabilitation	New	Annual review and maintenance of hospital-specific per diems (pediatric and adult), wage index adjustments, and blend of pediatric and adult rehabilitation services
4.7	Separately payable services and supplies	Existing	Annual review and maintenance

6 Implications for Hospitals and DHCS

Provider consultation and education are essential to a successful implementation. It has been appropriate to schedule trainings for hospital billing, coding, utilization management and financial staff. Similar trainings have also been appropriate for fiscal intermediary and DHCS staff.

Some of the materials referenced in this document will be useful in these trainings and are also available on the DHCS webpage at www.dhcs.ca.gov/provgovpart/Pages/DRG.aspx. For example:

- Frequently asked questions (FAQ), a separate document referenced in Section 6.1
- DRG pricing calculator, provided in Section 6.2
- Summary of expected impacts on hospitals, provided in Section 6.3
- Payment policy flow chart, provided in Section 7.14

Table 6.1 summarizes consultation and education events held or planned to date.

Table 6.1

Medi Cal DRG Project: Summary of Consultation, Education and Training Activities

Event/Topic	Date	Location	Description and Approximate Attendance
Consultation			
Monthly consultation meetings hosted by the California Hospital Association (CHA)	April 2011 – February 2012	Sacramento	• Nine in-person meetings with web conferencing • 40-50 hospital and hospital systems executives and staff, CHA leadership, other hospital associations and consultants (e.g., children's hospitals, district hospitals
DHCS DRG project update meeting with CHA consultation group	May 4, 2012	Sacramento	• DHCS/Xerox in-person presentation with web conferencing • 50-75 hospital staff in attendance
DHCS DRG data topics meeting with CHA consultation group	May 29, 2012	Web conference	• DHCS/Xerox presentation with web conferencing • 50-75 hospital staff in attendance
Dataset sharing			
Medi-Cal DRG Project-Hospital-specific claim-level data	November 2011 – December 2012		• DHCS shared hospital-specific datasets with approximately 180 hospitals represented on the hospital consultation group
Medi-Cal DRG Project-Hospital-specific claim-level data	January- March 2012		• DHCS shared claim-level datasets with CHA and District Hospital Association
Medi-Cal DRG Project-Hospital-specific claim-level data	February 2013 - ongoing		• DHCS shared individualized hospital-specific claim-level datasets with 208 hospitals (as of Sept. 17, 2013)
Medi-Cal DRG Project-Hospital-specific claim-level data for NDPH	June 2013 - ongoing		• DHCS shared individualized hospital-specific claim-level datasets with 12 hospitals (as of Sept. 17, 2013)

Table 6.1 Medi Cal DRG Project: Summary of Consultation, Education and Training Activities			
Event/Topic	**Date**	**Location**	**Description and Approximate Attendance**
DRG webpage communication			
DHCS DRG webpage	January 2013	Webpage	• 1,492 visitors
DHCS DRG webpage	February 2013	Webpage	• 3,257 visitors
DHCS DRG webpage	March 2013	Webpage	• 2,822 visitors
DHCS DRG webpage	April 2013	Webpage	• 3,057 visitors
DHCS DRG webpage	May 2013	Webpage	• 3,390 visitors
DHCS DRG webpage	June 2013	Webpage	• 5,374 visitors
DHCS DRG webpage	July 2013	Webpage	• 5,342 visitors
DHCS DRG webpage	August 2013	Webpage	• 3,569 visitors
Association-sponsored sessions			
CHA Hospital Reimbursement Seminar	June 21, 2011	Sacramento	• Xerox speaker; 60 hospital staff
CHA Hospital Reimbursement Seminar	June 28, 2011	Glendale	• Xerox speaker; 60 hospital staff
CHA Hospital Reimbursement Seminar	June 29, 2011	Newport Beach	• Xerox speaker; 60 hospital staff
HFMA, Southern California Chapter	August 11, 2011	Irvine	• Xerox speaker; 100 hospital staff
HFMA, Southern California Chapter	August 24, 2012	Monterey	• DHCS speaker; 50 hospital staff
HFMA, Southern California Chapter	October 8, 2012	Irvine	• Xerox speaker; 100 hospital staff
HFMA Road Show	January 18, 2013	Sacramento	• DHCS speaker; 50 hospital staff
HFMA Road Show	March 1, 2013	Visalia	• Xerox speaker, 30 hospital staff
HFMA, Northern California Chapter	April 30, 2013	Webinar	• DHCS/Xerox presentation, 100 hospital staff
CHA Hospital Reimbursement Seminar	June 6, 2013	Sacramento	• DHCS/Xerox speaker, 100 hospital staff
CHA Hospital Reimbursement Seminar	June 12, 2013	Glendale	• Xerox speaker, 115 hospital staff
CHA Hospital Reimbursement Seminar	June 13, 2013	Irvine	• Xerox speaker, 80 hospital staff
HFMA Fall Conference	September 17, 2013	Concord	• DHCS/Xerox presentation, 30 hospital staff
Provider training seminars and webinars			
Review of hospital specific datasets	February 22, 2012	Webinar	• DHCS/Xerox presentation; 60 hospital staff
Rate Setting Overview	February 6, 2013	Webinar	• DHCS/Xerox presentation; 100 hospital staff
Rate Setting Overview	February 8, 2013	Webinar	• DHCS/Xerox presentation; 90 hospital staff
General DRG Training	February 11, 2013	Webinar	• DHCS/Xerox presentation; 150 hospital staff
General DRG Training	February 14, 2013	Webinar	• DHCS/Xerox presentation; 160 hospital staff
General DRG Training	February 20, 2013	Ontario	• Xerox speakers; 130 hospital staff
Q&A re Hospital Files	March 13, 2013	Webinar	• DHCS/Xerox presentation; 75 hospital staff
General DRG Training	March 14, 2013	Sacramento	• DHCS/Xerox presentation; 78 hospital staff
Q&A re Hospital Files	March 27, 2013	Webinar	• DHCS/Xerox presentation; 40 hospital staff
General DRG Training	April 5, 2013	Webinar	• DHCS/Xerox presentation, 75 hospital staff
General DRG Training	April 17, 2013	Anaheim	• DHCS/Xerox presentation, 250 hospital staff
General DRG Training	May 3, 2013	Webinar	• DHCS/Xerox presentation, 134 hospital staff
General DRG Training	May 8, 2013	Redding	• DHCS/Xerox presentation, 9 hospital staff
General DRG Training/TAR update	May 16, 2013	Webinar	• Xerox presentation, 150 hospital staff
DRG Billing Webinar	May 21, 2013	Webinar	• Xerox presentation, 87 hospital staff
DRG Billing Webinar	May 23, 2013	Webinar	• Xerox presentation, 47 hospital staff
DRG Billing Webinar	May 28, 2013	Webinar	• Xerox presentation, 14 hospital staff

Table 6.1 Medi Cal DRG Project: Summary of Consultation, Education and Training Activities			
Event/Topic	**Date**	**Location**	**Description and Approximate Attendance**
DRG Billing Webinar	May 30, 2013	Webinar	• Xerox presentation, 25 hospital staff
DRG Billing Webinar	June 4, 2013	Webinar	• Xerox presentation, 45 hospital staff
DRG Billing Webinar	June 6, 2013	Webinar	• Xerox presentation 22 hospital staff
General DRG Training	June 6, 2013	Webinar	• DHCS/Xerox presentation, 150 hospital staff
DRG Billing Webinar	June 11, 2013	Webinar	• Xerox presentation, 23 hospital staff
DRG Billing Webinar	June 13, 2013	Webinar	• Xerox presentation, 21 hospital staff
DRG Billing Webinar	June 18, 2013	Webinar	• Xerox presentation, 24 hospital staff
DRG Billing Webinar	June 20, 2013	Webinar	• Xerox presentation, 42 hospital staff
DRG Billing Webinar	June 25, 2013	Webinar	• Xerox presentation, 23 hospital staff
DRG Billing Webinar	June 27, 2013	Webinar	• Xerox presentation, 24 hospital staff
DRG Billing Webinar	July 2, 2013	Webinar	• Xerox presentation, 31 hospital staff
DRG Billing Webinar	July 3, 2013	Webinar	• Xerox presentation, 16 hospital staff
DRG Ratesetting for NDPHs	July 17, 2013	Webinar	• DHCS/Xerox presentation, 35 hospital staff
DRG Billing Webinar	July 9, 2013	Webinar	• Xerox presentation, 10 hospital staff
General DRG Training	July 10, 2013	Webinar	• DHCS/Xerox presentation, 150 hospital staff
DRG Billing Webinar	July 11, 2013	Webinar	• Xerox presentation, 70 hospital staff
DRG Billing Training	July 17, 2013	Carson	• Xerox presentation, 31 hospital staff
General DRG Training	August 1, 2013	Webinar	• DHCS/Xerox presentation, 80 hospital staff
DRG Billing Training	August 14, 2013	Monterey	• Xerox presentation, 13 hospital staff
General DRG Training	Sept. 5, 2013	Webinar	• DHCS/Xerox presentation, 61 hospital staff
DRG Billing Webinar	Sept. 10, 2013	Webinar	• Xerox presentation, 27 hospital staff
DRG Billing Training	Sept. 18, 2013	Alhambra	• Xerox presentation, 24 hospital staff
DHCS and Fiscal Intermediary staff training			
Xerox regional provider representatives	October 12/19, 2012	Teleconference	• Xerox presentation; 21 Xerox staff
Xerox and DHCS staff – DRG training	March 13, 2013	Sacramento	• Xerox presentation; 40 DHCS and Xerox staff
Xerox and DHCS staff – DRG training	April 16, 2013	Sacramento	• Xerox presentation, 25 DHCS and Xerox staff
DHCS staff (TAR field offices) – DRG training	May 15, 2013	Teleconference	• DHCS/Xerox presentation, 27 DHCS and Xerox staff
Xerox and DHCS staff – DRG training	May 29, 2013	W. Sacramento	• Xerox presentation, 40 DHCS and Xerox staff
DHCS staff (CCS staff) – DRG training	June 6, 2013	Sacramento	• DHCS presentation, 30 + DHCS staff
DHCS staff – DRG training	July 15, 2013	Sacramento	• Xerox presentation; 2 staff
Upcoming events - Provider training seminars and webinars			
General DRG Training	Oct. 3, 2013	Webinar	• DHCS/Xerox presentation
DRG Billing Webinar	Oct. 15, 2013	Webinar	• Xerox presentation
DRG Billing Training	Oct. 22, 2013	Visalia	• Xerox presentation
DRG Billing Webinar	Nov 5, 2013	Webinar	• Xerox presentation
General DRG Training	Nov. 7, 2013	Webinar	• DHCS/Xerox presentation
General DRG Training	Dec. 5, 2013	Webinar	• DHCS/Xerox presentation

Notes:
1. CHA = California Hospital Association. HFMA = Healthcare Financial Management Association.
2. Provider training activities are posted to DHCS DRG webpage at http://www.dhcs.ca.gov/provgovpart/Pages/DRG.aspx and/or the Medi-Cal Learning Portal at https://learn.medi-cal.ca.gov.

6.1 Frequently Asked Questions

FAQ documents have been made available to any hospital staff, state staff, and others who may be interested in this project, including during the provider educational sessions and other presentation opportunities. The first version of the general FAQ was posted to the web in July 2011. Revisions to the FAQ have been made as decisions are finalized and more specific information became available. Also, FAQs specific to billing issues and for managed care organizations (MCOs) have been developed and exist on the web. These FAQ documents are available to interested parties on the DHCS webpage at www.dhcs.ca.gov/provgovpart/Pages/DRG.aspx.

6.2 DRG Pricing Calculator

The DRG pricing calculator is a spreadsheet tool used for both hospital training and MMIS testing. As shown in the following pages, it shows the detailed pricing logic. The calculator reflects DHCS decisions on the structure of the Medi-Cal fee-for-service DRG payment method implemented July 1, 2013. The calculator uses an example base price of $7,200, which is the July 1, 2013 statewide base price of $6,223, adjusted by the Medicare wage index value for the Los Angeles area. The user enters the data on the dark violet background, and then the spreadsheet handles the calculations. Payment policy parameters and values are shown in light lavender background.

Users can access the DRG pricing calculator on the DHCS webpage at www.dhcs.ca.gov/provgovpart/Pages/DRG.aspx.

The following pages show different pricing scenarios.

6.2.1 Straight DRG

This is the simplest case, likely to apply to approximately 80 percent of inpatient stays once the new method is implemented. In this example, a 25-year-old patient spends two days in hospital for pneumonia, severity 3 (APR-DRG 139-3). The allowed amount is the DRG relative weight for DRG 139-3 times the DRG base price, or $6,434.64.

1	C	D	E	F	G
2	**Medi-Cal DRG Pricing Calculator**				
3	**Note: This calculator reflects DHCS decisions on the structure of the Medi-Cal fee-for-service DRG payment method that will be implemented July 1, 2013. Stays for administrative days and rehabilitation services will be paid by a per diem method.**				
4	***Indicates information to be input by the user.***				***Indicates payment policy parameters set by Medicaid***
5	**Information**		**Data**		**Comments or Formula**
6	**INFORMATION FROM THE HOSPITAL-- TO BE INPUT BY THE USER**				
7	Total charges		$50,000.00		UB-04 Form Locator 47
8	Hospital-specific cost-to-charge ratio		35.00%		Used to estimate the hospital's cost of this stay
9	Length of stay		2		Used for transfer pricing adjustment
10	Patient discharge status = 02, 05, 65 or 66? (transfer)		No		Used for transfer pricing adjustment
11	Patient age (in years)		25		Used for age adjustor
12	Other health coverage		$0.00		UB-04 Form Locator 54 for payments by third parties
13	Patient share of cost		$0.00		Includes spend-down or copayment
14	Is discharge status equal to 30?		No		Indicates an interim claim
15	Designated NICU facility		No		Policy adjustor for designated NICU facilities
16	APR-DRG		139-3		From separate APR-DRG grouping software
17	**APR-DRG INFORMATION**				
18	APR-DRG description		OTHER PNEUMONIA		Look up from DRG table
19	Casemix relative weight--unadjusted		0.8937		Look up from DRG table
20	Service adjustor - hospital with designated NICU		1.0000		Look up from DRG table
21	Service adjustor - all other hospitals		1.0000		Look up from DRG table
22	Age adjustor		1.2500		Look up from DRG table
23	Payment relative weight		0.8937		IF E11<21, then if (E15="Yes"), then (E19*E20*E22), else (E19*E21*E22), else if (E15="Yes"), then (E19*E20), else (E19*E21)
24	Average length of stay for this APR-DRG		5.47		Look up from DRG table
25	**PAYMENT POLICY PARAMETERS SET BY MEDICAID--SUBJECT TO CHANGE**				
26	DRG base price		$7,200		Used for DRG base payment--see DRG base price tab
27	Cost outlier threshold 1		$40,000		Used for cost outlier adjustments
28	Cost outlier threshold 2		$125,000		Used for cost outlier adjustments
29	Marginal cost percentage_1		60%		Used for cost outlier adjustments
30	Marginal cost percentage_2		80%		Used for cost outlier adjustments
31	Casemix adjustment factor		1.00		Used to adjust DRG relative weights should a need arise, else leave set to 1.00.
32	Interim claim threshold		29		Used for pricing interim claims
33	Interim per diem amount		$600		Used for pricing interim claims
34	**IS THIS AN INTERIM CLAIM?**				
35	Is discharge status equal to 30?		No		Look up E14
36	Is length of stay > interim claim threshold?		N/A		IF E35="Yes", then if (E9 > E32), "Yes", else "No", else "N/A"
37	Skip to E65 for final interim claim payment amount		$0.00		IF E36="Yes", (E33*E9) rounded to 2 places, else 0
38	**WHAT IS THE DRG BASE PAYMENT?**				
39	DRG base payment for this claim		$6,434.64		E26*E23*E31
40	**IS A TRANSFER PAYMENT ADJUSTMENT MADE?**				
41	Is a transfer adjustment potentially applicable?		No		Look up E10
42	Calculated transfer payment adjustment		N/A		IF E41="Yes", then (E39/E24)*(E9+1) rounded to 2 places, else "NA"
43	Is transfer payment adjustment < allowed amount so far?		N/A		IF E42 ="N/A" then ,"N/A", else if (E42<E39), then "Yes" else "No"
44	Allowed amount after transfer adjustment		$6,434.64		IF E43= "Yes", then E42, else E39
45	**IS A COST OUTLIER ADJUSTMENT MADE?**				
46	Estimated cost of this case		$17,500.00		E7 * E8
47	Is estimated cost > allowed amount		Loss		IF E46 > E44 then "Loss" else "Gain"
48	***High-Side Outlier Payment When Payment Is Much Lower than Cost***				
49	Estimated loss on this case		$11,065.36		IF E47 = "Loss", then (E46-E44), else "N/A"
50	Is loss > outlier threshold lower limit		No		IF E47 = "Loss", then if (E49 > E27), then "Yes", else "No", else "N/A"
51	DRG cost outlier payment increase 1		$0.00		IF E50 = "Yes", then if (E49<E28), then ((E49-E27)*E29), else ((E28-E27)*E29), else 0
52	DRG cost outlier payment increase 2		$0.00		IF E50="Yes", then if (E49>E28), then (E49-E28)*E30, rounded to 2 places else 0, else 0
53	***Low Side Outlier Payment When Payment Is Much Greater than Cost***				
54	Estimated gain on this case		N/A		IF E47="Gain", then (E44-E46), else"N/A"
55	Is gain > outlier threshold		N/A		IF E47="Gain", then if (E54>E27), then "Yes", else "No", else "N/A"
56	DRG cost outlier payment decrease		$0.00		IF E47="Gain", then (if (E55="Yes"), then (E54-E27)*E29 rounded to 2 places,
57	**ALLOWED AMOUNT AFTER TRANSFER AND OUTLIER ADJUSTMENTS**				
58	DRG payment so far		$6,434.64		IF E47="Loss", then (E44+E51+E52), else (E44-E56)
59	**CALCULATION OF ALLOWED AMOUNT AND REIMBURSEMENT AMOUNT**				
60	Add-on amount		$0.00		Hospital-specific payment separate from DRG payment (not used at this time)
61	Allowed amount		$6,434.64		Allowed amount = E58+E60
62	Other health coverage		$0.00		E12
63	Patient share of cost		$0.00		E13
64	"Lesser of" calculation		$6,434.64		Existing policy ensures that payment amount cannot exceed total charges. IF E61>E7, then E7, else E61
65	Payment amount		**$6,434.64**		If interim claim (E35="yes"), then interim claim (E37) amount as payment amount. Otherwise, subtract other health coverage (E62) and patient share of cost (E63) from "Lesser of" (E64) to obtain payment amount.
4/4/2013					
This calculator spreadsheet is intended to be helpful to users, but it cannot capture all the editing and pricing complexity of the Medicaid claims processing system. In cases of difference, the claims processing system is correct.					
CALCULATOR VALUES ARE SUBJECT TO CHANGE BEFORE IMPLEMENTATION JULY 1, 2013.					

6.2.2 Straight DRG with Age Adjustor

In this case, DRGs are paid at a higher rate for beneficiaries under age 21. The clinical scenario is the same as in Section 6.2.1 except that the patient is 5 years old. An age adjustor of 1.25 is applied to the DRG relative weight, so the allowed amount is higher than in the previous scenario.

1	C	D	E	F	G
2	**Medi-Cal DRG Pricing Calculator**				
3	**Note: This calculator reflects DHCS decisions on the structure of the Medi-Cal fee-for-service DRG payment method that will be implemented July 1, 2013. Stays for administrative days and rehabilitation services will be paid by a per diem method.**				
4	***Indicates information to be input by the user.***				***Indicates payment policy parameters set by Medicaid***
5	**Information**		**Data**		**Comments or Formula**
6	**INFORMATION FROM THE HOSPITAL-- TO BE INPUT BY THE USER**				
7	Total charges		$50,000.00		UB-04 Form Locator 47
8	Hospital-specific cost-to-charge ratio		35.00%		Used to estimate the hospital's cost of this stay
9	Length of stay		2		Used for transfer pricing adjustment
10	Patient discharge status = 02, 05, 65 or 66? (transfer)		No		Used for transfer pricing adjustment
11	Patient age (in years)		5		Used for age adjustor
12	Other health coverage		$0.00		UB-04 Form Locator 54 for payments by third parties
13	Patient share of cost		$0.00		Includes spend-down or copayment
14	Is discharge status equal to 30?		No		Indicates an interim claim
15	Designated NICU facility		No		Policy adjustor for designated NICU facilities
16	APR-DRG		139-3		From separate APR-DRG grouping software
17	**APR-DRG INFORMATION**				
18	APR-DRG description		OTHER PNEUMONIA		Look up from DRG table
19	Casemix relative weight--unadjusted		0.8937		Look up from DRG table
20	Service adjustor - hospital with designated NICU		1.0000		Look up from DRG table
21	Service adjustor - all other hospitals		1.0000		Look up from DRG table
22	Age adjustor		1.2500		Look up from DRG table
23	Payment relative weight		1.1171		IF E11<21, then if (E15="Yes"), then (E19*E20*E22), else (E19*E21*E22), else if (E15="Yes"), then (E19*E20), else (E19*E21)
24	Average length of stay for this APR-DRG		5.47		Look up from DRG table
25	**PAYMENT POLICY PARAMETERS SET BY MEDICAID--SUBJECT TO CHANGE**				
26	DRG base price		$7,200		Used for DRG base payment--see DRG base price tab
27	Cost outlier threshold 1		$40,000		Used for cost outlier adjustments
28	Cost outlier threshold 2		$125,000		Used for cost outlier adjustments
29	Marginal cost percentage_1		60%		Used for cost outlier adjustments
30	Marginal cost percentage_2		80%		Used for cost outlier adjustments
31	Casemix adjustment factor		1.00		Used to adjust DRG relative weights should a need arise, else leave set to 1.00.
32	Interim claim threshold		29		Used for pricing interim claims
33	Interim per diem amount		$600		Used for pricing interim claims
34	**IS THIS AN INTERIM CLAIM?**				
35	Is discharge status equal to 30?		No		Look up E14
36	Is length of stay > interim claim threshold?		N/A		IF E35="Yes", then if (E9 > E32), "Yes", else "No", else "N/A"
37	Skip to E65 for final interim claim payment amount		$0.00		IF E36="Yes", (E33*E9) rounded to 2 places, else 0
38	**WHAT IS THE DRG BASE PAYMENT?**				
39	DRG base payment for this claim		$8,043.30		E26*E23*E31
40	**IS A TRANSFER PAYMENT ADJUSTMENT MADE?**				
41	Is a transfer adjustment potentially applicable?		No		Look up E10
42	Calculated transfer payment adjustment		N/A		IF E41="Yes", then (E39/E24)*(E9+1) rounded to 2 places, else "NA"
43	Is transfer payment adjustment < allowed amount so far?		N/A		IF E42 ="N/A" then ,"N/A", else if (E42<E39), then "Yes" else "No"
44	Allowed amount after transfer adjustment		$8,043.30		IF E43= "Yes", then E42, else E39
45	**IS A COST OUTLIER ADJUSTMENT MADE?**				
46	Estimated cost of this case		$17,500.00		E7 * E8
47	Is estimated cost > allowed amount		Loss		IF E46 > E44 then "Loss" else "Gain"
48	***High-Side Outlier Payment When Payment Is Much Lower than Cost***				
49	Estimated loss on this case		$9,456.70		IF E47 = "Loss", then (E46-E44), else "N/A"
50	Is loss > outlier threshold lower limit		No		IF E47 = "Loss", then if (E49 > E27), then "Yes", else "No", else "N/A"
51	DRG cost outlier payment increase 1		$0.00		IF E50 = "Yes", then if (E49<E28), then ((E49-E27)*E29), else ((E28-E27)*E29), else 0
52	DRG cost outlier payment increase 2		$0.00		IF E50="Yes", then if (E49>E28), then (E49-E28)*E30, rounded to 2 places else 0, else 0
53	***Low Side Outlier Payment When Payment Is Much Greater than Cost***				
54	Estimated gain on this case		N/A		IF E47="Gain", then (E44-E46), else"N/A"
55	Is gain > outlier threshold		N/A		IF E47="Gain", then if (E54>E27), then "Yes", else "No", else "N/A"
56	DRG cost outlier payment decrease		$0.00		IF E47="Gain", then (if (E55="Yes"), then (E54-E27)*E29 rounded to 2 places,
57	**ALLOWED AMOUNT AFTER TRANSFER AND OUTLIER ADJUSTMENTS**				
58	DRG payment so far		$8,043.30		IF E47="Loss", then (E44+E51+E52), else (E44-E56)
59	**CALCULATION OF ALLOWED AMOUNT AND REIMBURSEMENT AMOUNT**				
60	Add-on amount		$0.00		Hospital-specific payment separate from DRG payment (not used at this time)
61	Allowed amount		$8,043.30		Allowed amount = E58+E60
62	Other health coverage		$0.00		E12
63	Patient share of cost		$0.00		E13
64	"Lesser of" calculation		$8,043.30		Existing policy ensures that payment amount cannot exceed total charges. IF E61>E7, then E7, else E61
65	Payment amount		**$8,043.30**		If interim claim (E35="yes"), then interim claim (E37) amount as payment amount. Otherwise, subtract other health coverage (E62) and patient share of cost (E63) from "Lesser of" (E64) to obtain payment amount.
4/4/2013					
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CALCULATOR VALUES ARE SUBJECT TO CHANGE BEFORE IMPLEMENTATION JULY 1, 2013.					

6.2.3 Acute Care Transfer Adjustment

When a patient is transferred to another acute care setting, (discharge status 02, 05, 65, or 66), the payment to the transferring hospital may, or may not, be reduced depending on actual length of stay (LOS) relative to the DRG average LOS. The average for this DRG is 5.47 days but the actual LOS is only two days, so payment is reduced. If the actual LOS had been five days or more, then payment would not have been reduced.

1	C	D	E	F	G
2	**Medi-Cal DRG Pricing Calculator**				
3	**Note: This calculator reflects DHCS decisions on the structure of the Medi-Cal fee-for-service DRG payment method that will be implemented July 1, 2013. Stays for administrative days and rehabilitation services will be paid by a per diem method.**				
4	***Indicates information to be input by the user.***				***Indicates payment policy parameters set by Medicaid***
5	**Information**		**Data**		**Comments or Formula**
6	**INFORMATION FROM THE HOSPITAL-- TO BE INPUT BY THE USER**				
7	Total charges		$50,000.00		UB-04 Form Locator 47
8	Hospital-specific cost-to-charge ratio		35.00%		Used to estimate the hospital's cost of this stay
9	Length of stay		2		Used for transfer pricing adjustment
10	Patient discharge status = 02, 05, 65 or 66? (transfer)		Yes		Used for transfer pricing adjustment
11	Patient age (in years)		25		Used for age adjustor
12	Other health coverage		$0.00		UB-04 Form Locator 54 for payments by third parties
13	Patient share of cost		$0.00		Includes spend-down or copayment
14	Is discharge status equal to 30?		No		Indicates an interim claim
15	Designated NICU facility		No		Policy adjustor for designated NICU facilities
16	APR-DRG		139-3		From separate APR-DRG grouping software
17	**APR-DRG INFORMATION**				
18	APR-DRG description		OTHER PNEUMONIA		Look up from DRG table
19	Casemix relative weight--unadjusted		0.8937		Look up from DRG table
20	Service adjustor - hospital with designated NICU		1.0000		Look up from DRG table
21	Service adjustor - all other hospitals		1.0000		Look up from DRG table
22	Age adjustor		1.2500		Look up from DRG table
23	Payment relative weight		0.8937		IF E11<21, then if (E15="Yes"), then (E19*E20*E22), else (E19*E21*E22), else if (E15="Yes"), then (E19*E20), else (E19*E21)
24	Average length of stay for this APR-DRG		5.47		Look up from DRG table
25	**PAYMENT POLICY PARAMETERS SET BY MEDICAID--SUBJECT TO CHANGE**				
26	DRG base price		$7,200		Used for DRG base payment--see DRG base price tab
27	Cost outlier threshold 1		$40,000		Used for cost outlier adjustments
28	Cost outlier threshold 2		$125,000		Used for cost outlier adjustments
29	Marginal cost percentage_1		60%		Used for cost outlier adjustments
30	Marginal cost percentage_2		80%		Used for cost outlier adjustments
31	Casemix adjustment factor		1.00		Used to adjust DRG relative weights should a need arise, else leave set to 1.00.
32	Interim claim threshold		29		Used for pricing interim claims
33	Interim per diem amount		$600		Used for pricing interim claims
34	**IS THIS AN INTERIM CLAIM?**				
35	Is discharge status equal to 30?		No		Look up E14
36	Is length of stay > interim claim threshold?		N/A		IF E35="Yes", then if (E9 > E32), "Yes", else "No", else "N/A"
37	Skip to E65 for final interim claim payment amount		$0.00		IF E36="Yes", (E33*E9) rounded to 2 places, else 0
38	**WHAT IS THE DRG BASE PAYMENT?**				
39	DRG base payment for this claim		$6,434.64		E26*E23*E31
40	**IS A TRANSFER PAYMENT ADJUSTMENT MADE?**				
41	Is a transfer adjustment potentially applicable?		Yes		Look up E10
42	Calculated transfer payment adjustment		$3,529.05		IF E41="Yes", then (E39/E24)*(E9+1) rounded to 2 places, else "NA"
43	Is transfer payment adjustment < allowed amount so far?		Yes		IF E42 ="N/A" then ,"N/A", else if (E42<E39), then "Yes" else "No"
44	Allowed amount after transfer adjustment		$3,529.05		IF E43= "Yes", then E42, else E39
45	**IS A COST OUTLIER ADJUSTMENT MADE?**				
46	Estimated cost of this case		$17,500.00		E7 * E8
47	Is estimated cost > allowed amount		Loss		IF E46 > E44 then "Loss" else "Gain"
48	***High-Side Outlier Payment When Payment Is Much Lower than Cost***				
49	Estimated loss on this case		$13,970.95		IF E47 = "Loss", then (E46-E44), else "N/A"
50	Is loss > outlier threshold lower limit		No		IF E47 = "Loss", then if (E49 > E27), then "Yes", else "No", else "N/A"
51	DRG cost outlier payment increase 1		$0.00		IF E50 = "Yes", then if (E49<E28), then ((E49-E27)*E29), else ((E28-E27)*E29), else 0
52	DRG cost outlier payment increase 2		$0.00		IF E50="Yes", then if (E49>E28), then (E49-E28)*E30, rounded to 2 places else 0, else 0
53	***Low Side Outlier Payment When Payment Is Much Greater than Cost***				
54	Estimated gain on this case		N/A		IF E47="Gain", then (E44-E46), else"N/A"
55	Is gain > outlier threshold		N/A		IF E47="Gain", then if (E54>E27), then "Yes", else "No", else "N/A"
56	DRG cost outlier payment decrease		$0.00		IF E47="Gain", then (if (E55="Yes"), then (E54-E27)*E29 rounded to 2 places,
57	**ALLOWED AMOUNT AFTER TRANSFER AND OUTLIER ADJUSTMENTS**				
58	DRG payment so far		$3,529.05		IF E47="Loss", then (E44+E51+E52), else (E44-E56)
59	**CALCULATION OF ALLOWED AMOUNT AND REIMBURSEMENT AMOUNT**				
60	Add-on amount		$0.00		Hospital-specific payment separate from DRG payment (not used at this time)
61	Allowed amount		$3,529.05		Allowed amount = E58+E60
62	Other health coverage		$0.00		E12
63	Patient share of cost		$0.00		E13
64	"Lesser of" calculation		$3,529.05		Existing policy ensures that payment amount cannot exceed total charges. IF E61>E7, then E7, else E61
65	Payment amount		**$3,529.05**		If interim claim (E35="yes"), then interim claim (E37) amount as payment amount. Otherwise, subtract other health coverage (E62) and patient share of cost (E63) from "Lesser of" (E64) to obtain payment amount.
4/4/2013					
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6.2.4 Lesser of Paid or Billed Adjustment

In this case, the total allowed amount exceeds total charges. Even though the allowed amount is $6,434.64, payment is reduced to charges ($2,000). This is consistent with current policy, which is not impacted by a change in payment method and consistent with federal and state law. This example also demonstrates a cutback for patient share of cost ($5) and other health coverage ($200).

1	C	D	E	F	G
2	**Medi-Cal DRG Pricing Calculator**				
3	**Note: This calculator reflects DHCS decisions on the structure of the Medi-Cal fee-for-service DRG payment method that will be implemented July 1, 2013. Stays for administrative days and rehabilitation services will be paid by a per diem method.**				
4	***Indicates information to be input by the user.***				***Indicates payment policy parameters set by Medicaid***
5	**Information**		**Data**		**Comments or Formula**
6	**INFORMATION FROM THE HOSPITAL-- TO BE INPUT BY THE USER**				
7	Total charges		$2,000.00		UB-04 Form Locator 47
8	Hospital-specific cost-to-charge ratio		35.00%		Used to estimate the hospital's cost of this stay
9	Length of stay		2		Used for transfer pricing adjustment
10	Patient discharge status = 02, 05, 65 or 66? (transfer)		No		Used for transfer pricing adjustment
11	Patient age (in years)		25		Used for age adjustor
12	Other health coverage		$200.00		UB-04 Form Locator 54 for payments by third parties
13	Patient share of cost		$5.00		Includes spend-down or copayment
14	Is discharge status equal to 30?		No		Indicates an interim claim
15	Designated NICU facility		No		Policy adjustor for designated NICU facilities
16	APR-DRG		139-3		From separate APR-DRG grouping software
17	**APR-DRG INFORMATION**				
18	APR-DRG description		OTHER PNEUMONIA		Look up from DRG table
19	Casemix relative weight--unadjusted		0.8937		Look up from DRG table
20	Service adjustor - hospital with designated NICU		1.0000		Look up from DRG table
21	Service adjustor - all other hospitals		1.0000		Look up from DRG table
22	Age adjustor		1.2500		Look up from DRG table
23	Payment relative weight		0.8937		IF E11<21, then if (E15="Yes"), then (E19*E20*E22), else (E19*E21*E22), else if (E15="Yes"), then (E19*E20), else (E19*E21)
24	Average length of stay for this APR-DRG		5.47		Look up from DRG table
25	**PAYMENT POLICY PARAMETERS SET BY MEDICAID--SUBJECT TO CHANGE**				
26	DRG base price		$7,200		Used for DRG base payment--see DRG base price tab
27	Cost outlier threshold 1		$40,000		Used for cost outlier adjustments
28	Cost outlier threshold 2		$125,000		Used for cost outlier adjustments
29	Marginal cost percentage_1		60%		Used for cost outlier adjustments
30	Marginal cost percentage_2		80%		Used for cost outlier adjustments
31	Casemix adjustment factor		1.00		Used to adjust DRG relative weights should a need arise, else leave set to 1.00.
32	Interim claim threshold		29		Used for pricing interim claims
33	Interim per diem amount		$600		Used for pricing interim claims
34	**IS THIS AN INTERIM CLAIM?**				
35	Is discharge status equal to 30?		No		Look up E14
36	Is length of stay > interim claim threshold?		N/A		IF E35="Yes", then if (E9 > E32), "Yes", else "No", else "N/A"
37	Skip to E65 for final interim claim payment amount		$0.00		IF E36="Yes", (E33*E9) rounded to 2 places, else 0
38	**WHAT IS THE DRG BASE PAYMENT?**				
39	DRG base payment for this claim		$6,434.64		E26*E23*E31
40	**IS A TRANSFER PAYMENT ADJUSTMENT MADE?**				
41	Is a transfer adjustment potentially applicable?		No		Look up E10
42	Calculated transfer payment adjustment		N/A		IF E41="Yes", then (E39/E24)*(E9+1) rounded to 2 places, else "NA"
43	Is transfer payment adjustment < allowed amount so far?		N/A		IF E42 ="N/A" then ,"N/A", else if (E42<E39), then "Yes" else "No"
44	Allowed amount after transfer adjustment		$6,434.64		IF E43= "Yes", then E42, else E39
45	**IS A COST OUTLIER ADJUSTMENT MADE?**				
46	Estimated cost of this case		$700.00		E7 * E8
47	Is estimated cost > allowed amount		Gain		IF E46 > E44 then "Loss" else "Gain"
48	***High-Side Outlier Payment When Payment Is Much Lower than Cost***				
49	Estimated loss on this case		N/A		IF E47 = "Loss", then (E46-E44), else "N/A"
50	Is loss > outlier threshold lower limit		N/A		IF E47 = "Loss", then if (E49 > E27), then "Yes", else "No", else "N/A"
51	DRG cost outlier payment increase 1		$0.00		IF E50 = "Yes", then if (E49<E28), then ((E49-E27)*E29), else ((E28-E27)*E29), else 0
52	DRG cost outlier payment increase 2		$0.00		IF E50="Yes", then if (E49>E28), then (E49-E28)*E30, rounded to 2 places else 0, else 0
53	***Low Side Outlier Payment When Payment Is Much Greater than Cost***				
54	Estimated gain on this case		$5,734.64		IF E47="Gain", then (E44-E46), else"N/A"
55	Is gain > outlier threshold		No		IF E47="Gain", then if (E54>E27), then "Yes", else "No", else "N/A"
56	DRG cost outlier payment decrease		$0.00		IF E47="Gain", then (if (E55="Yes"), then (E54-E27)*E29 rounded to 2 places,
57	**ALLOWED AMOUNT AFTER TRANSFER AND OUTLIER ADJUSTMENTS**				
58	DRG payment so far		$6,434.64		IF E47="Loss", then (E44+E51+E52), else (E44-E56)
59	**CALCULATION OF ALLOWED AMOUNT AND REIMBURSEMENT AMOUNT**				
60	Add-on amount		$0.00		Hospital-specific payment separate from DRG payment (not used at this time)
61	Allowed amount		$6,434.64		Allowed amount = E58+E60
62	Other health coverage		$200.00		E12
63	Patient share of cost		$5.00		E13
64	"Lesser of" calculation		$2,000.00		Existing policy ensures that payment amount cannot exceed total charges. IF E61>E7, then E7, else E61
65	Payment amount		**$1,795.00**		If interim claim (E35="yes"), then interim claim (E37) amount as payment amount. Otherwise, subtract other health coverage (E62) and patient share of cost (E63) from "Lesser of" (E64) to obtain payment amount.
4/4/2013					
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6.2.5 High-Side Outlier Adjustment

In this case, the stay is exceptionally expensive for the hospital. Charges are $150,000; if the hospital's cost-to-charge ratio is 35 percent then the estimated cost of this stay is $52,500. Since the straight DRG payment is $6,434.64, the hospital's estimated loss is $46,065.36. Since this amount exceeds the cost outlier threshold lower limit ($40,000), the stay is an outlier stay. The outlier adjustment increases payment by the marginal cost factor_1 times $46,065.36 – $40,000, i.e., 60 percent x $6,065.36 = $3,639.22.

1	C	D	E	F	G
2	**Medi-Cal DRG Pricing Calculator**				
3	**Note: This calculator reflects DHCS decisions on the structure of the Medi-Cal fee-for-service DRG payment method that will be implemented July 1, 2013. Stays for administrative days and rehabilitation services will be paid by a per diem method.**				
4	***Indicates information to be input by the user.***				***Indicates payment policy parameters set by Medicaid***
5	**Information**		**Data**		**Comments or Formula**
6	**INFORMATION FROM THE HOSPITAL-- TO BE INPUT BY THE USER**				
7	Total charges		$150,000.00		UB-04 Form Locator 47
8	Hospital-specific cost-to-charge ratio		35.00%		Used to estimate the hospital's cost of this stay
9	Length of stay		2		Used for transfer pricing adjustment
10	Patient discharge status = 02, 05, 65 or 66? (transfer)		No		Used for transfer pricing adjustment
11	Patient age (in years)		25		Used for age adjustor
12	Other health coverage		$0.00		UB-04 Form Locator 54 for payments by third parties
13	Patient share of cost		$0.00		Includes spend-down or copayment
14	Is discharge status equal to 30?		No		Indicates an interim claim
15	Designated NICU facility		No		Policy adjustor for designated NICU facilities
16	APR-DRG		139-3		From separate APR-DRG grouping software
17	**APR-DRG INFORMATION**				
18	APR-DRG description		OTHER PNEUMONIA		Look up from DRG table
19	Casemix relative weight--unadjusted		0.8937		Look up from DRG table
20	Service adjustor - hospital with designated NICU		1.0000		Look up from DRG table
21	Service adjustor - all other hospitals		1.0000		Look up from DRG table
22	Age adjustor		1.2500		Look up from DRG table
23	Payment relative weight		0.8937		IF E11<21, then if (E15="Yes"), then (E19*E20*E22), else (E19*E21*E22), else if (E15="Yes"), then (E19*E20), else (E19*E21)
24	Average length of stay for this APR-DRG		5.47		Look up from DRG table
25	**PAYMENT POLICY PARAMETERS SET BY MEDICAID--SUBJECT TO CHANGE**				
26	DRG base price		$7,200		Used for DRG base payment--see DRG base price tab
27	Cost outlier threshold 1		$40,000		Used for cost outlier adjustments
28	Cost outlier threshold 2		$125,000		Used for cost outlier adjustments
29	Marginal cost percentage_1		60%		Used for cost outlier adjustments
30	Marginal cost percentage_2		80%		Used for cost outlier adjustments
31	Casemix adjustment factor		1.00		Used to adjust DRG relative weights should a need arise, else leave set to 1.00.
32	Interim claim threshold		29		Used for pricing interim claims
33	Interim per diem amount		$600		Used for pricing interim claims
34	**IS THIS AN INTERIM CLAIM?**				
35	Is discharge status equal to 30?		No		Look up E14
36	Is length of stay > interim claim threshold?		N/A		IF E35="Yes", then if (E9 > E32), "Yes", else "No", else "N/A"
37	Skip to E65 for final interim claim payment amount		$0.00		IF E36="Yes", (E33*E9) rounded to 2 places, else 0
38	**WHAT IS THE DRG BASE PAYMENT?**				
39	DRG base payment for this claim		$6,434.64		E26*E23*E31
40	**IS A TRANSFER PAYMENT ADJUSTMENT MADE?**				
41	Is a transfer adjustment potentially applicable?		No		Look up E10
42	Calculated transfer payment adjustment		N/A		IF E41="Yes", then (E39/E24)*(E9+1) rounded to 2 places, else "NA"
43	Is transfer payment adjustment < allowed amount so far?		N/A		IF E42 ="N/A" then ,"N/A", else if (E42<E39), then "Yes" else "No"
44	Allowed amount after transfer adjustment		$6,434.64		IF E43= "Yes", then E42, else E39
45	**IS A COST OUTLIER ADJUSTMENT MADE?**				
46	Estimated cost of this case		$52,500.00		E7 * E8
47	Is estimated cost > allowed amount		Loss		IF E46 > E44 then "Loss" else "Gain"
48	***High-Side Outlier Payment When Payment Is Much Lower than Cost***				
49	Estimated loss on this case		$46,065.36		IF E47 = "Loss", then (E46-E44), else "N/A"
50	Is loss > outlier threshold lower limit		Yes		IF E47 = "Loss", then if (E49 > E27), then "Yes", else "No", else "N/A"
51	DRG cost outlier payment increase 1		$3,639.22		IF E50 = "Yes", then if (E49<E28), then ((E49-E27)*E29), else ((E28-E27)*E29), else 0
52	DRG cost outlier payment increase 2		$0.00		IF E50="Yes", then if (E49>E28), then (E49-E28)*E30, rounded to 2 places else 0, else 0
53	***Low Side Outlier Payment When Payment Is Much Greater than Cost***				
54	Estimated gain on this case		N/A		IF E47="Gain", then (E44-E46), else"N/A"
55	Is gain > outlier threshold		N/A		IF E47="Gain", then if (E54>E27), then "Yes", else "No", else "N/A"
56	DRG cost outlier payment decrease		$0.00		IF E47="Gain", then (if (E55="Yes"), then (E54-E27)*E29 rounded to 2 places,
57	**ALLOWED AMOUNT AFTER TRANSFER AND OUTLIER ADJUSTMENTS**				
58	DRG payment so far		$10,073.86		IF E47="Loss", then (E44+E51+E52), else (E44-E56)
59	**CALCULATION OF ALLOWED AMOUNT AND REIMBURSEMENT AMOUNT**				
60	Add-on amount		$0.00		Hospital-specific payment separate from DRG payment (not used at this time)
61	Allowed amount		$10,073.86		Allowed amount = E58+E60
62	Other health coverage		$0.00		E12
63	Patient share of cost		$0.00		E13
64	"Lesser of" calculation		$10,073.86		Existing policy ensures that payment amount cannot exceed total charges. IF E61>E7, then E7, else E61
65	Payment amount		**$10,073.86**		If interim claim (E35="yes"), then interim claim (E37) amount as payment amount. Otherwise, subtract other health coverage (E62) and patient share of cost (E63) from "Lesser of" (E64) to obtain payment amount.
4/4/2013					
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6.2.6 High-Side Outlier Adjustment Two-Tier

In this case, the payer buffers extreme losses by setting two outlier thresholds with corresponding marginal cost factors. The case is the same as in Section 6.2.5 except that the stay is even more expensive. The hospital's estimated loss is $273,565.36, which exceeds both cost outlier thresholds — the lower limit ($40,000) and the higher limit ($125,000). Two outlier adjustments increase the DRG base payment by $169,852.29.

1	C	D	E	F	G
2	**Medi-Cal DRG Pricing Calculator**				
3	**Note: This calculator reflects DHCS decisions on the structure of the Medi-Cal fee-for-service DRG payment method that will be implemented July 1, 2013. Stays for administrative days and rehabilitation services will be paid by a per diem method.**				
4	***Indicates information to be input by the user.***				***Indicates payment policy parameters set by Medicaid***
5	**Information**		**Data**		**Comments or Formula**
6	**INFORMATION FROM THE HOSPITAL-- TO BE INPUT BY THE USER**				
7	Total charges		$800,000.00		UB-04 Form Locator 47
8	Hospital-specific cost-to-charge ratio		35.00%		Used to estimate the hospital's cost of this stay
9	Length of stay		2		Used for transfer pricing adjustment
10	Patient discharge status = 02, 05, 65 or 66? (transfer)		No		Used for transfer pricing adjustment
11	Patient age (in years)		25		Used for age adjustor
12	Other health coverage		$0.00		UB-04 Form Locator 54 for payments by third parties
13	Patient share of cost		$0.00		Includes spend-down or copayment
14	Is discharge status equal to 30?		No		Indicates an interim claim
15	Designated NICU facility		No		Policy adjustor for designated NICU facilities
16	APR-DRG		139-3		From separate APR-DRG grouping software
17	**APR-DRG INFORMATION**				
18	APR-DRG description		OTHER PNEUMONIA		Look up from DRG table
19	Casemix relative weight--unadjusted		0.8937		Look up from DRG table
20	Service adjustor - hospital with designated NICU		1.0000		Look up from DRG table
21	Service adjustor - all other hospitals		1.0000		Look up from DRG table
22	Age adjustor		1.2500		Look up from DRG table
23	Payment relative weight		0.8937		IF E11<21, then if (E15="Yes"), then (E19*E20*E22), else (E19*E21*E22), else if (E15="Yes"), then (E19*E20), else (E19*E21)
24	Average length of stay for this APR-DRG		5.47		Look up from DRG table
25	**PAYMENT POLICY PARAMETERS SET BY MEDICAID--SUBJECT TO CHANGE**				
26	DRG base price		$7,200		Used for DRG base payment--see DRG base price tab
27	Cost outlier threshold 1		$40,000		Used for cost outlier adjustments
28	Cost outlier threshold 2		$125,000		Used for cost outlier adjustments
29	Marginal cost percentage_1		60%		Used for cost outlier adjustments
30	Marginal cost percentage_2		80%		Used for cost outlier adjustments
31	Casemix adjustment factor		1.00		Used to adjust DRG relative weights should a need arise, else leave set to 1.00.
32	Interim claim threshold		29		Used for pricing interim claims
33	Interim per diem amount		$600		Used for pricing interim claims
34	**IS THIS AN INTERIM CLAIM?**				
35	Is discharge status equal to 30?		No		Look up E14
36	Is length of stay > interim claim threshold?		N/A		IF E35="Yes", then if (E9 > E32), "Yes", else "No", else "N/A"
37	Skip to E65 for final interim claim payment amount		$0.00		IF E36="Yes", (E33*E9) rounded to 2 places, else 0
38	**WHAT IS THE DRG BASE PAYMENT?**				
39	DRG base payment for this claim		$6,434.64		E26*E23*E31
40	**IS A TRANSFER PAYMENT ADJUSTMENT MADE?**				
41	Is a transfer adjustment potentially applicable?		No		Look up E10
42	Calculated transfer payment adjustment		N/A		IF E41="Yes", then (E39/E24)*(E9+1) rounded to 2 places, else "NA"
43	Is transfer payment adjustment < allowed amount so far?		N/A		IF E42 ="N/A" then ,"N/A", else if (E42<E39), then "Yes" else "No"
44	Allowed amount after transfer adjustment		$6,434.64		IF E43= "Yes", then E42, else E39
45	**IS A COST OUTLIER ADJUSTMENT MADE?**				
46	Estimated cost of this case		$280,000.00		E7 * E8
47	Is estimated cost > allowed amount		Loss		IF E46 > E44 then "Loss" else "Gain"
48	***High-Side Outlier Payment When Payment Is Much Lower than Cost***				
49	Estimated loss on this case		$273,565.36		IF E47 = "Loss", then (E46-E44), else "N/A"
50	Is loss > outlier threshold lower limit		Yes		IF E47 = "Loss", then if (E49 > E27), then "Yes", else "No", else "N/A"
51	DRG cost outlier payment increase 1		$51,000.00		IF E50 = "Yes", then if (E49<E28), then ((E49-E27)*E29), else ((E28-E27)*E29), else 0
52	DRG cost outlier payment increase 2		$118,852.29		IF E50="Yes", then if (E49>E28), then (E49-E28)*E30, rounded to 2 places else 0, else 0
53	***Low Side Outlier Payment When Payment Is Much Greater than Cost***				
54	Estimated gain on this case		N/A		IF E47="Gain", then (E44-E46), else"N/A"
55	Is gain > outlier threshold		N/A		IF E47="Gain", then if (E54>E27), then "Yes", else "No", else "N/A"
56	DRG cost outlier payment decrease		$0.00		IF E47="Gain", then (if (E55="Yes"), then (E54-E27)*E29 rounded to 2 places,
57	**ALLOWED AMOUNT AFTER TRANSFER AND OUTLIER ADJUSTMENTS**				
58	DRG payment so far		$176,286.93		IF E47="Loss", then (E44+E51+E52), else (E44-E56)
59	**CALCULATION OF ALLOWED AMOUNT AND REIMBURSEMENT AMOUNT**				
60	Add-on amount		$0.00		Hospital-specific payment separate from DRG payment (not used at this time)
61	Allowed amount		$176,286.93		Allowed amount = E58+E60
62	Other health coverage		$0.00		E12
63	Patient share of cost		$0.00		E13
64	"Lesser of" calculation		$176,286.93		Existing policy ensures that payment amount cannot exceed total charges. IF E61>E7, then E7, else E61
65	Payment amount		**$176,286.93**		If interim claim (E35="yes"), then interim claim (E37) amount as payment amount. Otherwise, subtract other health coverage (E62) and patient share of cost (E63) from "Lesser of" (E64) to obtain payment amount.
4/4/2013					
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6.2.7 Low-Side Outlier Adjustment

In this case, the hospital makes a large gain. We use a liver transplant as an example of a high-paying DRG (base payment $138,996.72). We also assume a relatively short and inexpensive stay, with hospital cost of $43,750. The hospital makes a gain of $95,246.72. The outlier adjustment reduces payment by the marginal cost factor_1 times $95,246.72 – $40,000, i.e., 60 percent x $57,148.03 = $33,148.03.

1	C	D	E	F	G
2	**Medi-Cal DRG Pricing Calculator**				
3	**Note: This calculator reflects DHCS decisions on the structure of the Medi-Cal fee-for-service DRG payment method that will be implemented July 1, 2013. Stays for administrative days and rehabilitation services will be paid by a per diem method.**				
4	***Indicates information to be input by the user.***				***Indicates payment policy parameters set by Medicaid***
5	**Information**		**Data**		**Comments or Formula**
6	**INFORMATION FROM THE HOSPITAL-- TO BE INPUT BY THE USER**				
7	Total charges		$125,000.00		UB-04 Form Locator 47
8	Hospital-specific cost-to-charge ratio		35.00%		Used to estimate the hospital's cost of this stay
9	Length of stay		2		Used for transfer pricing adjustment
10	Patient discharge status = 02, 05, 65 or 66? (transfer)		No		Used for transfer pricing adjustment
11	Patient age (in years)		25		Used for age adjustor
12	Other health coverage		$0.00		UB-04 Form Locator 54 for payments by third parties
13	Patient share of cost		$0.00		Includes spend-down or copayment
14	Is discharge status equal to 30?		No		Indicates an interim claim
15	Designated NICU facility		No		Policy adjustor for designated NICU facilities
16	APR-DRG		001-4		From separate APR-DRG grouping software
17	**APR-DRG INFORMATION**				
18	APR-DRG description		LIVER TRANSPLANT &/OR INTESTINAL TRANSPLANT		Look up from DRG table
19	Casemix relative weight--unadjusted		19.3051		Look up from DRG table
20	Service adjustor - hospital with designated NICU		1.0000		Look up from DRG table
21	Service adjustor - all other hospitals		1.0000		Look up from DRG table
22	Age adjustor		1.2500		Look up from DRG table
23	Payment relative weight		19.3051		IF E11<21, then if (E15="Yes"), then (E19*E20*E22), else (E19*E21*E22), else if (E15="Yes"), then (E19*E20), else (E19*E21)
24	Average length of stay for this APR-DRG		32.06		Look up from DRG table
25	**PAYMENT POLICY PARAMETERS SET BY MEDICAID--SUBJECT TO CHANGE**				
26	DRG base price		$7,200		Used for DRG base payment--see DRG base price tab
27	Cost outlier threshold 1		$40,000		Used for cost outlier adjustments
28	Cost outlier threshold 2		$125,000		Used for cost outlier adjustments
29	Marginal cost percentage_1		60%		Used for cost outlier adjustments
30	Marginal cost percentage_2		80%		Used for cost outlier adjustments
31	Casemix adjustment factor		1.00		Used to adjust DRG relative weights should a need arise, else leave set to 1.00.
32	Interim claim threshold		29		Used for pricing interim claims
33	Interim per diem amount		$600		Used for pricing interim claims
34	**IS THIS AN INTERIM CLAIM?**				
35	Is discharge status equal to 30?		No		Look up E14
36	Is length of stay > interim claim threshold?		N/A		IF E35="Yes", then if (E9 > E32), "Yes", else "No", else "N/A"
37	Skip to E65 for final interim claim payment amount		$0.00		IF E36="Yes", (E33*E9) rounded to 2 places, else 0
38	**WHAT IS THE DRG BASE PAYMENT?**				
39	DRG base payment for this claim		$138,996.72		E26*E23*E31
40	**IS A TRANSFER PAYMENT ADJUSTMENT MADE?**				
41	Is a transfer adjustment potentially applicable?		No		Look up E10
42	Calculated transfer payment adjustment		N/A		IF E41="Yes", then (E39/E24)*(E9+1) rounded to 2 places, else "NA"
43	Is transfer payment adjustment < allowed amount so far?		N/A		IF E42 ="N/A" then ,"N/A", else if (E42<E39), then "Yes" else "No"
44	Allowed amount after transfer adjustment		$138,996.72		IF E43= "Yes", then E42, else E39
45	**IS A COST OUTLIER ADJUSTMENT MADE?**				
46	Estimated cost of this case		$43,750.00		E7 * E8
47	Is estimated cost > allowed amount		Gain		IF E46 > E44 then "Loss" else "Gain"
48	***High-Side Outlier Payment When Payment Is Much Lower than Cost***				
49	Estimated loss on this case		N/A		IF E47 = "Loss", then (E46-E44), else "N/A"
50	Is loss > outlier threshold lower limit		N/A		IF E47 = "Loss", then if (E49 > E27), then "Yes", else "No", else "N/A"
51	DRG cost outlier payment increase 1		$0.00		IF E50 = "Yes", then if (E49<E28), then ((E49-E27)*E29), else ((E28-E27)*E29), else 0
52	DRG cost outlier payment increase 2		$0.00		IF E50="Yes", then if (E49>E28), then (E49-E28)*E30, rounded to 2 places else 0, else 0
53	***Low Side Outlier Payment When Payment Is Much Greater than Cost***				
54	Estimated gain on this case		$95,246.72		IF E47="Gain", then (E44-E46), else"N/A"
55	Is gain > outlier threshold		Yes		IF E47="Gain", then if (E54>E27), then "Yes", else "No", else "N/A"
56	DRG cost outlier payment decrease		$33,148.03		IF E47="Gain", then (if (E55="Yes"), then (E54-E27)*E29 rounded to 2 places,
57	**ALLOWED AMOUNT AFTER TRANSFER AND OUTLIER ADJUSTMENTS**				
58	DRG payment so far		$105,848.69		IF E47="Loss", then (E44+E51+E52), else (E44-E56)
59	**CALCULATION OF ALLOWED AMOUNT AND REIMBURSEMENT AMOUNT**				
60	Add-on amount		$0.00		Hospital-specific payment separate from DRG payment (not used at this time)
61	Allowed amount		$105,848.69		Allowed amount = E58+E60
62	Other health coverage		$0.00		E12
63	Patient share of cost		$0.00		E13
64	"Lesser of" calculation		$105,848.69		Existing policy ensures that payment amount cannot exceed total charges. IF E61>E7, then E7, else E61
65	Payment amount		**$105,848.69**		If interim claim (E35="yes"), then interim claim (E37) amount as payment amount. Otherwise, subtract other health coverage (E62) and patient share of cost (E63) from "Lesser of" (E64) to obtain payment amount.
4/4/2013					
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6.2.8 Interim Claim

In this case, the beneficiary is still a patient (discharge status 30) and the actual length of stay is more than 29 days. Payment is calculated by the interim per diem amount ($600) times the actual length of stay (illustrated as 31 days). At the end of the hospital stay, the hospital submits a final claim for the complete stay. Final payment will be calculated by the DRG method and then reduced by the interim claim amounts that were previously submitted.

1	C	D	E	F	G
2	**Medi-Cal DRG Pricing Calculator**				
3	**Note: This calculator reflects DHCS decisions on the structure of the Medi-Cal fee-for-service DRG payment method that will be implemented July 1, 2013. Stays for administrative days and rehabilitation services will be paid by a per diem method.**				
4	***Indicates information to be input by the user.***				***Indicates payment policy parameters set by Medicaid***
5	**Information**		**Data**		**Comments or Formula**
6	**INFORMATION FROM THE HOSPITAL-- TO BE INPUT BY THE USER**				
7	Total charges		$75,000.00		UB-04 Form Locator 47
8	Hospital-specific cost-to-charge ratio		35.00%		Used to estimate the hospital's cost of this stay
9	Length of stay		31		Used for transfer pricing adjustment
10	Patient discharge status = 02, 05, 65 or 66? (transfer)		No		Used for transfer pricing adjustment
11	Patient age (in years)		25		Used for age adjustor
12	Other health coverage		$0.00		UB-04 Form Locator 54 for payments by third parties
13	Patient share of cost		$0.00		Includes spend-down or copayment
14	Is discharge status equal to 30?		Yes		Indicates an interim claim
15	Designated NICU facility		No		Policy adjustor for designated NICU facilities
16	APR-DRG		089-4		From separate APR-DRG grouping software
17	**APR-DRG INFORMATION**				
18	APR-DRG description		MAJOR CRANIAL/FACIAL BONE PROCEDURES		Look up from DRG table
19	Casemix relative weight--unadjusted		7.5132		Look up from DRG table
20	Service adjustor - hospital with designated NICU		1.0000		Look up from DRG table
21	Service adjustor - all other hospitals		1.0000		Look up from DRG table
22	Age adjustor		1.2500		Look up from DRG table
23	Payment relative weight		7.5132		IF E11<21, then if (E15="Yes"), then (E19*E20*E22), else (E19*E21*E22), else if (E15="Yes"), then (E19*E20), else (E19*E21)
24	Average length of stay for this APR-DRG		20.75		Look up from DRG table
25	**PAYMENT POLICY PARAMETERS SET BY MEDICAID--SUBJECT TO CHANGE**				
26	DRG base price		$7,200		Used for DRG base payment--see DRG base price tab
27	Cost outlier threshold 1		$40,000		Used for cost outlier adjustments
28	Cost outlier threshold 2		$125,000		Used for cost outlier adjustments
29	Marginal cost percentage_1		60%		Used for cost outlier adjustments
30	Marginal cost percentage_2		80%		Used for cost outlier adjustments
31	Casemix adjustment factor		1.00		Used to adjust DRG relative weights should a need arise, else leave set to 1.00.
32	Interim claim threshold		29		Used for pricing interim claims
33	Interim per diem amount		$600		Used for pricing interim claims
34	**IS THIS AN INTERIM CLAIM?**				
35	Is discharge status equal to 30?		Yes		Look up E14
36	Is length of stay > interim claim threshold?		Yes		IF E35="Yes", then if (E9 > E32), "Yes", else "No", else "N/A"
37	Skip to E65 for final interim claim payment amount		$18,600.00		IF E36="Yes", (E33*E9) rounded to 2 places, else 0
38	**WHAT IS THE DRG BASE PAYMENT?**				
39	DRG base payment for this claim		$54,095.04		E26*E23*E31
40	**IS A TRANSFER PAYMENT ADJUSTMENT MADE?**				
41	Is a transfer adjustment potentially applicable?		No		Look up E10
42	Calculated transfer payment adjustment		N/A		IF E41="Yes", then (E39/E24)*(E9+1) rounded to 2 places, else "NA"
43	Is transfer payment adjustment < allowed amount so far?		N/A		IF E42 ="N/A" then ,"N/A", else if (E42<E39), then "Yes" else "No"
44	Allowed amount after transfer adjustment		$54,095.04		IF E43= "Yes", then E42, else E39
45	**IS A COST OUTLIER ADJUSTMENT MADE?**				
46	Estimated cost of this case		$26,250.00		E7 * E8
47	Is estimated cost > allowed amount		Gain		IF E46 > E44 then "Loss" else "Gain"
48	***High-Side Outlier Payment When Payment Is Much Lower than Cost***				
49	Estimated loss on this case		N/A		IF E47 = "Loss", then (E46-E44), else "N/A"
50	Is loss > outlier threshold lower limit		N/A		IF E47 = "Loss", then if (E49 > E27), then "Yes", else "No", else "N/A"
51	DRG cost outlier payment increase 1		$0.00		IF E50 = "Yes", then if (E49<E28), then ((E49-E27)*E29), else ((E28-E27)*E29), else 0
52	DRG cost outlier payment increase 2		$0.00		IF E50="Yes", then if (E49>E28), then (E49-E28)*E30, rounded to 2 places else 0, else 0
53	***Low Side Outlier Payment When Payment Is Much Greater than Cost***				
54	Estimated gain on this case		$27,845.04		IF E47="Gain", then (E44-E46), else"N/A"
55	Is gain > outlier threshold		No		IF E47="Gain", then if (E54>E27), then "Yes", else "No", else "N/A"
56	DRG cost outlier payment decrease		$0.00		IF E47="Gain", then (if (E55="Yes"), then (E54-E27)*E29 rounded to 2 places,
57	**ALLOWED AMOUNT AFTER TRANSFER AND OUTLIER ADJUSTMENTS**				
58	DRG payment so far		$54,095.04		IF E47="Loss", then (E44+E51+E52), else (E44-E56)
59	**CALCULATION OF ALLOWED AMOUNT AND REIMBURSEMENT AMOUNT**				
60	Add-on amount		$0.00		Hospital-specific payment separate from DRG payment (not used at this time)
61	Allowed amount		$54,095.04		Allowed amount = E58+E60
62	Other health coverage		$0.00		E12
63	Patient share of cost		$0.00		E13
64	"Lesser of" calculation		$54,095.04		Existing policy ensures that payment amount cannot exceed total charges. IF E61>E7, then E7, else E61
65	Payment amount		**$18,600.00**		If interim claim (E35="yes"), then interim claim (E37) amount as payment amount. Otherwise, subtract other health coverage (E62) and patient share of cost (E63) from "Lesser of" (E64) to obtain payment amount.
4/4/2013					
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6.2.9 Designated NICU Adjustment

In this case, the patient is a newborn at a designated NICU facility. DHCS has defined a designated NICU as a NICU certified by the California Children's Services program for neonatal surgery. The policy adjustor for a hospital with a designated NICU is 1.75, instead of 1.25 at all other hospitals. The policy adjustor affects the payment relative weight applied to the DRG base price and, thus, increases the allowed payment amount.

1	C	D	E	F	G
2	**Medi-Cal DRG Pricing Calculator**				
3	**Note: This calculator reflects DHCS decisions on the structure of the Medi-Cal fee-for-service DRG payment method that will be implemented July 1, 2013. Stays for administrative days and rehabilitation services will be paid by a per diem method.**				
4	***Indicates information to be input by the user.***				***Indicates payment policy parameters set by Medicaid***
5	**Information**		**Data**		**Comments or Formula**
6	**INFORMATION FROM THE HOSPITAL-- TO BE INPUT BY THE USER**				
7	Total charges		$50,000.00		UB-04 Form Locator 47
8	Hospital-specific cost-to-charge ratio		35.00%		Used to estimate the hospital's cost of this stay
9	Length of stay		2		Used for transfer pricing adjustment
10	Patient discharge status = 02, 05, 65 or 66? (transfer)		No		Used for transfer pricing adjustment
11	Patient age (in years)		0		Used for age adjustor
12	Other health coverage		$0.00		UB-04 Form Locator 54 for payments by third parties
13	Patient share of cost		$0.00		Includes spend-down or copayment
14	Is discharge status equal to 30?		No		Indicates an interim claim
15	Designated NICU facility		Yes		Policy adjustor for designated NICU facilities
16	APR-DRG		639-3		From separate APR-DRG grouping software
17	**APR-DRG INFORMATION**				
18	APR-DRG description		NEONATE BIRTHWT >2499G W OTHER SIGNIFICANT		Look up from DRG table
19	Casemix relative weight--unadjusted		1.5079		Look up from DRG table
20	Service adjustor - hospital with designated NICU		1.7500		Look up from DRG table
21	Service adjustor - all other hospitals		1.2500		Look up from DRG table
22	Age adjustor		1.0000		Look up from DRG table
23	Payment relative weight		2.6388		IF E11<21, then if (E15="Yes"), then (E19*E20*E22), else (E19*E21*E22), else if (E15="Yes"), then (E19*E20), else (E19*E21)
24	Average length of stay for this APR-DRG		8.64		Look up from DRG table
25	**PAYMENT POLICY PARAMETERS SET BY MEDICAID--SUBJECT TO CHANGE**				
26	DRG base price		$7,200		Used for DRG base payment--see DRG base price tab
27	Cost outlier threshold 1		$40,000		Used for cost outlier adjustments
28	Cost outlier threshold 2		$125,000		Used for cost outlier adjustments
29	Marginal cost percentage_1		60%		Used for cost outlier adjustments
30	Marginal cost percentage_2		80%		Used for cost outlier adjustments
31	Casemix adjustment factor		1.00		Used to adjust DRG relative weights should a need arise, else leave set to 1.00.
32	Interim claim threshold		29		Used for pricing interim claims
33	Interim per diem amount		$600		Used for pricing interim claims
34	**IS THIS AN INTERIM CLAIM?**				
35	Is discharge status equal to 30?		No		Look up E14
36	Is length of stay > interim claim threshold?		N/A		IF E35="Yes", then if (E9 > E32), "Yes", else "No", else "N/A"
37	Skip to E65 for final interim claim payment amount		$0.00		IF E36="Yes", (E33*E9) rounded to 2 places, else 0
38	**WHAT IS THE DRG BASE PAYMENT?**				
39	DRG base payment for this claim		$18,999.54		E26*E23*E31
40	**IS A TRANSFER PAYMENT ADJUSTMENT MADE?**				
41	Is a transfer adjustment potentially applicable?		No		Look up E10
42	Calculated transfer payment adjustment		N/A		IF E41="Yes", then (E39/E24)*(E9+1) rounded to 2 places, else "NA"
43	Is transfer payment adjustment < allowed amount so far?		N/A		IF E42 ="N/A" then ,"N/A", else if (E42<E39), then "Yes" else "No"
44	Allowed amount after transfer adjustment		$18,999.54		IF E43= "Yes", then E42, else E39
45	**IS A COST OUTLIER ADJUSTMENT MADE?**				
46	Estimated cost of this case		$17,500.00		E7 * E8
47	Is estimated cost > allowed amount		Gain		IF E46 > E44 then "Loss" else "Gain"
48	***High-Side Outlier Payment When Payment Is Much Lower than Cost***				
49	Estimated loss on this case		N/A		IF E47 = "Loss", then (E46-E44), else "N/A"
50	Is loss > outlier threshold lower limit		N/A		IF E47 = "Loss", then if (E49 > E27), then "Yes", else "No", else "N/A"
51	DRG cost outlier payment increase 1		$0.00		IF E50 = "Yes", then if (E49<E28), then ((E49-E27)*E29), else ((E28-E27)*E29), else 0
52	DRG cost outlier payment increase 2		$0.00		IF E50="Yes", then if (E49>E28), then (E49-E28)*E30, rounded to 2 places else 0, else 0
53	***Low Side Outlier Payment When Payment Is Much Greater than Cost***				
54	Estimated gain on this case		$1,499.54		IF E47="Gain", then (E44-E46), else"N/A"
55	Is gain > outlier threshold		No		IF E47="Gain", then if (E54>E27), then "Yes", else "No", else "N/A"
56	DRG cost outlier payment decrease		$0.00		IF E47="Gain", then (if (E55="Yes"), then (E54-E27)*E29 rounded to 2 places,
57	**ALLOWED AMOUNT AFTER TRANSFER AND OUTLIER ADJUSTMENTS**				
58	DRG payment so far		$18,999.54		IF E47="Loss", then (E44+E51+E52), else (E44-E56)
59	**CALCULATION OF ALLOWED AMOUNT AND REIMBURSEMENT AMOUNT**				
60	Add-on amount		$0.00		Hospital-specific payment separate from DRG payment (not used at this time)
61	Allowed amount		$18,999.54		Allowed amount = E58+E60
62	Other health coverage		$0.00		E12
63	Patient share of cost		$0.00		E13
64	"Lesser of" calculation		$18,999.54		Existing policy ensures that payment amount cannot exceed total charges. IF E61>E7, then E7, else E61
65	Payment amount		**$18,999.54**		If interim claim (E35="yes"), then interim claim (E37) amount as payment amount. Otherwise, subtract other health coverage (E62) and patient share of cost (E63) from "Lesser of" (E64) to obtain payment amount.
4/4/2013					
This calculator spreadsheet is intended to be helpful to users, but it cannot capture all the editing and pricing complexity of the Medicaid claims processing system. In cases of difference, the claims processing system is correct.					
CALCULATOR VALUES ARE SUBJECT TO CHANGE BEFORE IMPLEMENTATION JULY 1, 2013.					

6.3 Expected Impacts on Hospitals

Table 6.3.1 summarizes the project's impacts on hospital operations and finances.

Table 6.3.1

Expected Impacts on Hospital Operations and Finances

(Listed in approximate declining order of impact)

PDD Ref.	Item	Comment
3.6, 6.7	Financial impact of new payment method	Individual hospitals will see increases or decreases.
5.1	Treatment Authorization Request process	TAR/SAR no longer required on length of stay for the vast majority of days. TAR on the admission is still required. SAR is specific to CCS and GHPP beneficiaries. See Table 5.1.1 and 5.1.2 for more detail.
7.5	Payment is per stay	Payment is no longer per day. APR-DRG makes one payment for the hospital stay.
2.2.2	Increased importance of diagnosis and procedure coding	Assignment of base APR-DRG and level of severity is driven by the number, nature and interaction of diagnoses and comorbidities as well as procedure codes.
5.7.1	Mother and newborn must be billed on separate claims	Separate payment is made for each stay.
5.7.2	Newborns with long lengths of stay and multiple claims must be billed with the same Medicaid number on each claim, preferably the baby's number (i.e., sick newborns).	Because payment is by stay, submission of the mother's beneficiary number on some claims and the baby's beneficiary number on other claims would be problematic.
5.7.2	Newborn weight should be coded using diagnosis codes (not value codes) when applicable. This is important where birthweight is a critical indicator of care.	ICD-9-CM classification uses the 5th digit to indicate birthweight for diagnoses 764 and 765.0-765.1.
5.2.2	Interim bill types 112, 113, and discharge status 30 only accepted for stays exceeding 29 days. Interim bill type 114 not accepted.	For those claims with extended stays (greater than 29 days) and a discharge status code 30, providers are allowed to submit an interim bill to be paid at a per diem rate, established by DHCS at $600 effective July 1, 2013. Submission of interim claim(s) is voluntary and not mandatory under any circumstance. Payment of interim claims requires an approved TAR/SAR. When the patient is discharged, a single admit-through-discharge claim should be submitted using type of bill 111 (Admit-through-discharge claim) containing the full length of stay, all diagnosis and surgical procedure codes, and all the charges for the entire stay which will be priced using the APR-DRG method. All previous interim claims will be voided and the amount of the interim claims will be removed from the provider's checkwrite Remittance Advice Details. For newborn claims, please be sure to consistently use the mother's or baby's beneficiary identification number for all claims related to a single stay.
5.4	Administrative days	Administrative days must be billed on a separate claim, identified by appropriate revenue code. A new administrative day level 2 (revenue codes 190, 199) was created for sub-acute level care. Administrative day level 2 care is defined as care that is less intensive than acute care, and more intensive than the existing administrative day care, which is referred to as administrative day level 1. Administrative day level 2 revenue codes 190 and 199 are available for payment only to DRG hospitals. Administrative day level 2 claims flow through the same pricing policy as used for administrative day level 1 (revenue code 169) claims. Level 2 administrative day claims are identified by the presence of one or more lines with revenue code 190 (sub-acute pediatric) or 199 (sub-acute adult).

Table 6.3.1 Expected Impacts on Hospital Operations and Finances (Listed in approximate declining order of impact)		
PDD Ref.	**Item**	**Comment**
		Administrative day levels 1 and 2 require TAR/SAR for every day of the stay. Payment for administrative day level 2 is at the lower of the hospital-specific rate already established or the statewide rate. The statewide per diem rates effective July 1, 2013 are: $894.60 for pediatric beneficiaries and $896.67 for adult beneficiaries. Payment of ancillary services when billed with administrative level 2 days is limited to a specified list. (See the *Ancillary Codes* section of the Medi-Cal Provider Manual)
2.2.2	Four-byte APR-DRG code	Impact depends on how the hospital's billing system is configured. An APR-DRG has three-bytes for the base DRG and 1 byte for level of severity (format 1234 for DRG123-4).
5.5	Rehabilitation stays	A new per diem payment method will be implemented for payment of rehabilitation claims. Rehabilitation claims are identified by the presence of revenue codes 118, 128, 138, and/or 158 on one or more service lines on the claim, as well as claims grouped to APR-DRG 860. Rehabilitation claims are paid a hospital-specific per diem amount adjusted by the hospital-specific wage index, in the same manner as the DRG base price is adjusted. The per diem is multiplied by the number of days submitted on the claim. Rates were established for adult beneficiaries (age 21 and over) and for pediatric beneficiaries (under age 21). For DRG hospitals that provided rehab services to adult and pediatric populations, a blended rate was developed. TAR/SAR for the admission and all days is required. Physical rehabilitation days should be billed on separate claim, identified by the appropriate revenue code.
4.10.1	Present-on-admission indicator	Submit claims with a valid present-on-admission value for each diagnosis (except for exempt diagnoses codes, which are blank per 5010).
4.7	Separately payable services, supplies and devices	In the few situations where separate payment is allowed, a separate outpatient claim should be submitted for bone marrow search and acquisition as well as for blood factors.
5.2.1	Late charges (bill type 115) not accepted	Submit a claim adjustment instead.
4.10.1	Health care-acquired conditions (HCACs)	Payment may be reduced if a HCAC is present on the claim. Note: HCACs are also known as provider preventable conditions or PPCs under this federally required payment policy.
4.7.1	Physician services bundled into SPCP per diem rates	For some hospitals, specific physician services (e.g., laboratory and pathology) were bundled into the inpatient hospital per diem under the previous method. This no longer applies. All physician services should be billed as professional claims (i.e., CMS-1500, X12N837P).
7.5	Split billing a hospital stay	This specifically applies only to paper claims that are submitted on more than one page. Each page of the claim must show all diagnosis and procedure codes. The provider number, the beneficiary identification number, the dates of admission, and all diagnosis and procedure codes should be the same on all pages.
4.1.3	Transfers from non-contract hospitals	All Health Facility Planning Areas (HFPAs) are considered open areas allowing for all hospitals to serve Medi-Cal beneficiaries for both emergency and elective services (subject to approved Treatment Authorization Requests). Hospitals are no longer required to transfer patients based on their previous non-contract designation in closed HFPAs. Contract or non-contract facility designations do not apply under the DRG payment method.

Note:

1. These impacts are anticipated as of July 2013 when the DRG payment method was implemented.

6.4 Policy Documentation

Policy documentation for the new payment method includes updates to the Medicaid state plan amendment and the provider billing manual.

Xerox has assisted DHCS in the preparation of policy documentation.

6.5 Policy Update and File Maintenance Tasks

Periodic reviews and maintenance – at least annual – are essential to the proper functioning of any DRG-based payment method. Table 6.5.1 summarizes these tasks.

Table 6.5.1
MMIS Reference Update and File Maintenance Tasks

PDD Ref.	MMIS File	Payment Policy	Recommended Schedule	Primary Resp.	Other Entities Involved	Notes
2.3, 2.4.2	N/A	Diagnosis and procedure code mapper	Install new version each October 1	Fiscal intermediary (FI)		
2.3, 2.4.2	DRG	APR-DRG version	Install new version each year	Fiscal intermediary		V.29 to be implemented 7/1/13
4.10.2	DRG	HAC utility version	Install new version each year	Fiscal intermediary		V.31 to be implemented 7/1/14: manual workaround meanwhile
2.3	DRG	APR-DRG labels	Each time grouper version is updated	Fiscal intermediary		
2.5	DRG	APR-DRG relative weights	Each time grouper version is updated	Fiscal intermediary		
4.1.1	DRG	APR-DRG average length of stay data	Each time grouper version is updated	Fiscal intermediary		
4.10.2	DRG	HCAC categories	Each time HAC utility version is updated	Fiscal intermediary	SNFD	
4.2	Parameter	APR-DRG cost outlier thresholds	Update annually	SNFD	FI	Thresholds should be updated for inflation even if the DRG version is unchanged. Values implemented are: threshold 1 = $40,000 and threshold 2 = $125,000
3.3	Provider	Hospital-specific DRG base prices	Review annually	SNFD	FI and/or PED	Review and update hospitals' Medicare wage area assignment (including reclassifications) and indices
3.4	Provider	Hospital-specific DRG base prices	Review annually	SNFD	FI and/or PED	Review and update hospitals' remote rural status

Table 6.5.1 MMIS Reference Update and File Maintenance Tasks						
PDD Ref.	**MMIS File**	**Payment Policy**	**Recommended Schedule**	**Primary Resp.**	**Other Entities Involved**	**Notes**
4.2 5.4	Provider	Hospital-specific cost to charge ratio	Update quarterly	A&I	SNFD, PED	CCRs tend to decline over time, so it's important to update values annually. Suggest review for payment of outliers and ancillary services related to administrative day levels 1 and 2.
3.1	N/A	Estimate fiscal impact of changes in grouper, relative weights, DRG base prices	Each time there are significant changes in DRG version, relative weights or DRG base prices	SNFD		
4.2	DRG	Marginal cost factor used in outlier calculations	Review annually	SNFD		Values implemented are: marginal cost factor 1 = 60% and marginal cost factor 2 = 80%
4.2	DRG	Percentages of payments made as high-side outliers and low-side outliers	Review annually	SNFD		Initial target is -17%
2.6	DRG	Policy adjustors	Review annually	SNFD		Review and update hospitals designated NICU status and policy adjustor factors. Policy adjustors implemented are: • Neonate DRGs at designated NICU hospitals: 1.75 • Neonate DRGs at all other hospitals: 1.25
2.7	DRG	Age adjustor	Review annually	SNFD		Review and update age adjustor on Medicaid care categories. Value implemented is 1.25.
5.2.2	Parameter	Per diem payment amount for interim claims	Review annually	FFSR	SNFD, PED	Interim claim per diem implemented is $600.
5.4	Provider	Per diem payment amount for administrative day Level 1 and Level 2	Review annually	FFSR	SNFD, PED	Review admin day level 2 per diem rates for pediatric and adult services and list of ancillary services. Values implemented: are hospital-specific: revenue code 190 (pediatric) = $894.60; revenue code 199 (adult) = $896.67; or the previous hospital-specific rate.
5.5	Provider	Per diem payment amount for rehabilitation services	Review annually	FFSR	SNFD, PED	Review pediatric, adult and blended rehabilitation rates. Update hospital-specific wage indices used to adjust base rates. Values implemented are hospital-specific: pediatric unadjusted base rate = $1,841; adult unadjusted base rate = $1,032; and hospital-specific blended rate.

Table 6.5.1
MMIS Reference Update and File Maintenance Tasks

PDD Ref.	MMIS File	Payment Policy	Recommended Schedule	Primary Resp.	Other Entities Involved	Notes
3.5	Provider	Documentation, coding and capture adjustment to the DRG base price	Review monthly	SNFD	A&I and/or PED	Value implemented is 3.5%. Calculate statewide casemix monthly and quarterly for first and second year. Suggest quarterly or semiannually thereafter. Adjust DRG base price prospectively.
5.2.2	Parameter	Interim claim minimum length of stay	Review annually	SNFD		Value implemented is LOS greater than 29 days.
4.7	N/A	Separately payable services, supplies and devices	Review annually	SNFD		Review list of HCPCS codes and applicable fees.

Notes:

1. FFSR = Fee-for-Service Rates
2. PED = Provider Enrollment Division
3. SNFD = Safety Net Financing Division
4. A&I = Audits and Investigations

6.6 Monitoring Payment Method Integrity

The most important decision in any payment method is the unit of payment. Whatever the unit of payment, the provider's financial incentive is to increase the number of units for which it is paid and to decrease its own cost per unit. For example:

- If payment is at a percentage of charges, the incentives are to increase charges while reducing cost, resulting in continuing decreases in the cost-to-charge ratio (as has been seen nationwide in the hospital industry)

- If payment is at a percentage of cost, the incentives are to increase cost and also to try to allocate costs to those services paid on a cost reimbursement basis.

- If payment is by fee schedule, the incentives are to increase the number of services while reducing the cost of those services (as has been seen in physician care nationwide)

- If payment is per diem, the incentives are to increase the number of days of care and decrease the cost per day. (In the Selective Provider Contracting Program (SPCP), the incentive has also been to put time and effort into negotiating the hospital-specific per diem rates.)

- If payment is per stay (e.g., by DRG), the incentives are to increase the number of stays and decrease the cost per stay, especially by decreasing length of stay.

We do not mean to imply that there is anything inappropriate in providers responding to these incentives. Hospital executives, like everyone else, are motivated by financial incentives among other factors. Indeed, payment method designers choose the unit of payment in an effort to motivate providers in specific ways. Our point is simply that the movement from negotiated per diem rates and cost reimbursement (on the one hand) to payment per stay using APR-DRGs (on the other hand) represents an important change in the financial incentives facing Medi-Cal hospital providers. We expect it to result in slower growth in cost per stay, due in particular to decreased length of stay; increased access for patients needing expensive, specialized services (because of higher rates for these services under APR-DRGs); increased attention to reducing cost in existing non-contract hospitals; and less effort spent on determining hospital-specific payment levels.

Because of the change in incentives, some current Medi-Cal efforts to monitor the integrity of the payment method will no longer be as necessary as they have been in the past. Examples are:

- ***Negotiating per diem rates for approximately 190 contract hospitals.*** This function had been performed by the California Medical Assistance Commission (CMAC), which operated the SPCP. Although CMAC was dissolved on June 30, 2012, DHCS continued to operate the SPCP until implementation of the new payment system on July 1, 2013.

- ***Settlement of cost reports for approximately 170 non-contract hospitals.*** This function has been performed by the DHCS Audits and Investigation Division. We note, however, that submission and auditing of cost reports will continue to be necessary, since these reports are used in calculating certain supplemental payments. Cost settlement, however, will not be needed. We also note that it is very useful to calculate pay-to-cost ratios in monitoring the performance of any inpatient hospital payment method, including DRGs.

- ***Treatment authorization of every day of care.*** This function has been performed by the DHCS Utilization Management Division (UMD). For the hospitals that are within the scope of the new payment method, we estimate that UMD's workload in 2013 will drop from 1.1 million days to 120,000 days. We note that TAR continues to be required for the medical necessity of admission for all non-obstetric stays, just not for the length of stay.

In place of these efforts, however, it will be necessary to devote resources to monitoring the following aspects of the new payment method. In part, such efforts are needed to guard against excess use of services and payments (as required under, e.g., 42 CFR 456). They are also prudent investments in maintaining the integrity of the payment method. In (approximately) declining order of importance, these include the following.

1. ***Coding validation: diagnosis and procedure codes.*** Often the easiest way for a hospital to increase its DRG payments is to improve the completeness of diagnosis and procedure coding. In many cases this is expected and completely appropriate. Nevertheless, DHCS should closely monitor changes in reported casemix, both overall and on a hospital-specific basis. One reason is simply that overall casemix drives overall payment, so understanding trends is essential in forecasting DHCS spending. As well, as in every other realm of human activity, there will be individual hospitals that are inappropriately aggressive in coding diagnoses and procedures. Many consultants specialize in advising hospitals on how to increase their DRG payments under Medicare while avoiding fraudulent practices. They can be expected to expand their scope to Medi-Cal, especially in the areas of obstetrics, newborn care and pediatrics where complete coding has never been important for purposes of Medicare payment.
2. ***Ensuring the medical necessity of admission.*** Medi-Cal already reviews the medical necessity of the admission for all stays except deliveries and normal newborns. Were this requirement not already in place, it would be necessary to implement monitoring of medical necessity in some form. As part of monitoring, we recommended post-payment review of short stays, such as one-day stays. A short stay is often explicable (e.g., patient died, left against medical advice, serious condition ruled out, was stable after emergency treatment such as angioplasty, etc.) and it would be wrong to automatically deny or cut back payment for short stays. Nevertheless, an unusually high proportion of short stays might indicate a tendency to admit patients without medical necessity.

3. ***Monitoring particularly expensive stays.*** In every Medicaid program, a few stays are extremely expensive. Under DRG payment, for example, we expect the top 3 percent of stays to represent approximately 34 percent of total payments. These stays typically involve neonatal intensive care, transplants, tracheostomy patients, or patients with multiple serious illnesses such as septicemia and kidney failure. For some of these stays, the base DRG payment will be high enough that no separate cost outlier payment will be made. For other stays, payment will comprise the base payment plus an outlier payment. At minimum, we recommended that DHCS review a monthly report showing the top 100 (or more) individual stays in terms of Medi-Cal payment. The data for each stay should "fit together" in terms of diagnoses, procedures, APR-DRG assignment, length of stay, billed charges, and Medi-Cal payment. DHCS may also want to consider concurrent review of unusually expensive stays. The most straightforward way to operationalize such a policy would be to require treatment authorization once a stay exceeds a certain day threshold, e.g., 29 days. See Section 5.1.

4. ***Monitoring transfers to sub-acute care, especially within the same hospital.*** Hospitals will have incentives to cut short the acute stay (for which it is paid per stay) and transfer the patient to administrative days or rehabilitation. As a safeguard, administrative days and rehabilitation days require TAR on both the admission and each day. Monitoring premature discharges from the acute stay could be part of the TAR review of the subsequent days.

5. ***Ensuring correct reporting of discharge status.*** The presence on the claim of discharge statuses 02, 05, 65, or 66 could result in reduced payment, as described in Section 4.1. As well, APR-DRG 581 (Neonate, transferred <5 days old, born here) is intended for those situations where a baby is transferred to neonatal intensive care at another hospital. If the transfer status was not coded, the hospital potentially could receive a much higher payment. Therefore, it would be appropriate to verify that discharge status values are, in fact, being reported when appropriate.

6. ***Monitoring services within the "outpatient window."*** Previous policy, under which emergency services provided in the 24-hour period before admission are bundled within the stay, but all other outpatient services may be billed separately, continues. Monitoring should address whether ER services are, in fact, being bundled within the stay. As well, it would be useful to monitor the volume of outpatient services being billed and paid separately, in case a future policy change to widen the window might be appropriate. See Section 5.3.

7. ***Monitoring premature discharges.*** Since the start of DRG payment over 30 years ago, hospitals and payers have recognized the incentive to reduce length of stay. Many initiatives, such as performing pre-operative tests before admission, have improved efficiency without demonstrably adverse effects on patient care. Premature discharge remains a concern even though, in practice, it has not been as big an issue as was originally feared.[127] We recommended that DHCS monitor sentinel events that may indicate a pattern of premature discharge. Such sentinel events include patient complaints and readmissions for the same or a closely related condition.

8. ***Monitoring separately payable services.*** It is appropriate to monitor billing and payments made for services, supplies and devices billed on an outpatient basis. The reason is that hospitals automatically receive extra payment whenever these items are billed. See Section 4.7.

9. ***Monitoring interim payments.*** For stays exceeding 29 days, hospitals that choose to bill an interim claim receive interim payment. When the patient is discharged, the hospital is required to submit a single admit-through-discharge claim so that final payment could be calculated under the DRG payment method. The interim payment amount per diem has been set low enough that hospitals would not have an incentive to keep the interim payment and not submit a final claim. Nevertheless, we recommended periodic monitoring to ensure that final discharge claims are being submitted.

10. ***Monitoring mental health and substance abuse DRGs.*** DHCS will monitor and review mental health and substance abuse claims to determine if these claims should have been paid by the counties. Inpatient mental health and chemical dependency stays paid by DRG may be identified based on the APR-DRG range for psychiatric care (740-760) and for chemical dependency (770-776). DHCS may also coordinate the review of these claims with Audits and Investigations and Mental Health Services division.

11. ***Coding validation: present-on-admission indicators.*** CA-MMIS can be set to require valid values for the present-on-admission indicators attached to each diagnosis code, but it cannot ensure that the POA values are coded appropriately by the hospital. In particular, a payer should ensure that the value blank=Exempt is used appropriately and the value W=Clinically undetermined is used as little as possible. Use of the value Y=Yes (Present-on-admission) should also be corroborated by the medical record. In terms of priority, we mention this concern last because the policy on health care-acquired conditions will affect so few stays (Section 4.10.1). If the HCAC policy broadens in scope, then this concern would move up the list.

Monitoring the integrity of the payment method has several aspects.

- ***Legal authority.*** We recommended that DHCS review its statutory and regulatory authority to ensure that it can take action as necessary to ensure the integrity of payment under a DRG method. Such a review would be necessary because its current authority was written within a different payment environment.

- ***Provider training.*** Provider training can be very useful in heading off problems, for example by educating hospitals about the need to code discharge status codes correctly. Such training also serves as notice that the payer regards certain issues as important to the integrity of the payment method.

- ***Routine reports.*** As with any payment method, routine reports will help DHCS monitor both the overall performance of the payment method and any individual anomalies that would merit further review. We recommended that routine reports be generated from the Medi-Cal data warehouses. Some sample reports, based on our experience in other states, are listed in Table 6.6.1.

- ***Data analysis.*** As a general rule, we recommended against broad-brush policies such as “Every short stay must be reviewed by DHCS.” Instead, we believe a more efficient use of resources is to perform an overall data analysis to identify

(in this example) hospitals that appear to have a large proportion of short stays.[128] An analyst could then focus the analysis by looking for patterns, e.g., by APR-DRG or discharge status. Only after initial data analysis has identified anomalies would it be necessary to undertake expensive and time-consuming chart review.

- ***Activities by other DRG payers.*** Medicare, in particular, is a useful source of information. The Office of Inspector General is the lead agency for monitoring the integrity of the MS-DRG payment method. Its annual workplan[129] lists the issues it thinks deserves attention. It also issues audit and investigation reports on topics such as outlier payments, documentation and coding improvement, etc. The Medicare Payment Advisory Commission (MedPAC) routinely advises Congress on the performance of the payment method. The Government Accountability Office, the Congressional Budget Office and various think tanks and other organizations also publish research on Medicare inpatient payment. The recently established Medicaid and CHIP Payment and Advisory Commission (MACPAC) is also expected to be a useful source of comparative information across states. Lastly, other Medicaid programs using or planning to use APR-DRG payment methods include Florida, Maryland, Mississippi, Montana, New York, North Dakota, Ohio, Pennsylvania, Rhode Island, South Carolina, and Texas, as well as Colorado, the District of Columbia and Illinois.

Table 6.6.1

Examples of Routine Reports

No.	Frequency	Report	Purpose	Universe	Key Field(s)	Information Fields
1	Monthly	Summary of payments by Medicaid Care Category	Review trends in spending, utilization and casemix by Medicaid Care Category (MCC). See Section 6.6, #1.	All claims paid by DRG	Medicaid Care Category	Medicaid Care Category, total stays, days, charges, estimated hospital cost, DRG casemix relative weight, DRG base payments, DRG outlier payments, price, and corresponding averages per stay Sort: Total stays, descending
2	Monthly	Summary of payments by APR-DRG	Review most common DRGs, analyze average charges and payments, analyze outlier payments as percentage of all payments, compare average length of stay against benchmark	All claims paid by DRG	APR-DRG (four-digit)	APR-DRG code, APR-DRG description, total stays, days, charges, estimated hospital cost, DRG casemix relative weight, DRG base payments, DRG outlier payments, price, and corresponding averages per stay. Also national average length of stay (from DRG file) Sort: Total stays, descending
3	Monthly	Summary of payments by hospital	Review list of top hospitals by total payments, analyze average charges and payments, analyze outlier payments as percentage of all payments	All claims paid by DRG	Hospital NPI	Hospital NPI, hospital name, in/out of state indicator, total stays, days, charges, estimated hospital cost, DRG casemix relative weight, DRG base payments, DRG outlier payments, price, and corresponding averages per stay Sort: Total stays, descending

Table 6.6.1 Examples of Routine Reports						
No.	**Frequency**	**Report**	**Purpose**	**Universe**	**Key Field(s)**	**Information Fields**
4	Monthly	Highest-paying claims	Check appropriateness of billed information and payment calculations on the most expensive claims. See Section 6.6, #3.	All claims paid by DRG (top 100 by total price)	CCN	CCN, APR-DRG, hospital NPI, hospital name, days, charges, estimated hospital cost, DRG casemix relative weight, DRG base payment, DRG outlier payment, price, discharge status. Sort: Price, descending
5	Monthly	Summary of payments by DRG pricing method	Analyze how claims are being paid, prevalence of straight DRG claims vs. outlier claims etc. See Section 6.6 #5.	All claims paid by DRG	Unique combination of DRG pricing method and DRG outlier indicator	DRG pricing method indicator, DRG pricing method description, DRG outlier indicator, DRG outlier indicator description, total stays, days, charges, estimated hospital cost, DRG casemix relative weight, DRG base payments, DRG outlier payments, price, and corresponding averages per stay. Sort: Total stays, descending
6	Monthly	DRG cost outlier payments	Review outlier claims by hospital to trend hospital utilization requiring outlier payments. These claims may require more oversight from DHCS UMD.	All claims paid by DRG with DRG cost - and - outlier payment not equal to $0	CCN	CCN, APR-DRG, hospital NPI, hospital name, days, charges, estimated hospital cost, DRG casemix relative weight, DRG base payment, DRG outlier payment, price, discharge status. Also national average length of stay (from DRG file). Sort: Cost outlier amount, descending
7	Monthly	Payments by patient discharge status	Analyze patterns of discharge destination. See Section 6.6 #5.	All claims paid by DRG	Discharge status	Discharge status, discharge status description, total stays, days, charges, estimated hospital cost, DRG casemix relative weight, DRG base payments, DRG outlier payments, price, and corresponding averages per stay. Sort: Total stays, descending
8	Monthly	Interim claims	Review claims that will likely be high-paid (either outlier or high DRG base payment). These claims could be monitored by DHCS UMD after the initial 29 days.	All claims paid by DRG with discharge status = 30 - or – bill type = 112, 113	CCN	CCN, hospital NPI, hospital name, first date of service, last date of service, days, charges, estimated hospital cost, price, discharge status, all diagnosis and ICD-9-CM procedure code values and descriptions. (Interim claims do not have DRG assigned.) Sort: Hospital NPI, then beneficiary ID, then FDOS

Table 6.6.1 Examples of Routine Reports						
No.	**Frequency**	**Report**	**Purpose**	**Universe**	**Key Field(s)**	**Information Fields**
9	Monthly	Interim claims with no final claim	Identify situations where interim claims were submitted but no final claim was submitted. DHCS can remind hospitals to submit the final claim and or decide upon a policy, if required, to ensure that final claims are submitted. See Section 6.6, #9.	Interim claims paid two months prior for which no final claim has been received. For example, a report generated at the end of April should list all interim claims paid in February for which no final claim was paid in March or April.	CCN	CCN, hospital NPI, hospital name, beneficiary ID, first date of service, last date of service, type of bill, patient discharge status charges, estimated hospital cost, price. Interim claims are identified by patient discharge status = 30. Final claims are identified by patient discharge status equal to anything other than 30. The report should include all interim claims for a hospital stay. Using the example of a report run in April, if an interim claim was found paid in February and did not have a final claim, then the report should also include any other interim claims for the same hospital stay. Other interim claims for the same hospital stay will be identified as having the same beneficiary ID, provider number, and admit date. Sort: Hospital NPI, then beneficiary ID, then FDOS
10	Monthly	Short stays	Monitor possible patterns of premature discharge. See Section 6.6, # 2 & 7.	All claims paid by DRG where the LOS < 0.25 x national ALOS, subject to the restriction that ALOS > 10 days	CCN	CCN, APR-DRG, hospital NPI, hospital name, first date of service, last date of service, length of stay, national ALOS, charges, estimated hospital cost, DRG casemix relative weight, DRG base payment, DRG outlier payment, price, discharge status. Sort: Hospital NPI, then APR-DRG, then beneficiary ID
11	Monthly	Long stays	Analyze prevalence and payment for long stays, which tend to be expensive, medically complex and/or difficult to discharge.	All claims paid by DRG with length of stay > threshold (e.g., 29 days)	CCN	CCN, APR-DRG, hospital NPI, hospital name, days, charges, estimated hospital cost, LOS, DRG LOS , DRG casemix relative weight, DRG base payment, DRG outlier payment, price, discharge status. Sort: Hospital NPI, then APR-DRG, then beneficiary ID

Table 6.6.1

Examples of Routine Reports

No.	Frequency	Report	Purpose	Universe	Key Field(s)	Information Fields
12	Daily	Suspect duplicate or unbundling situation	Identify situations where there is more than one paid claim a single inpatient stay. See Section 6.6, #6, #8.	Paid claims for the same patient with overlapping FDOS→LDOS date spans, hospital inpatient or hospital outpatient bill type	CCN	CCN, APR-DRG, hospital NPI, hospital name, charges, estimated hospital cost, DRG casemix relative weight, DRG base payment, DRG outlier payment, price, discharge status, admin date, discharge date, LOS, bill type. Sort: Beneficiary ID, then FDOS, then hospital NPI
13	Monthly, quarterly	Health care-acquired conditions (HCAC) - Systematic Payment Adjustment	To support HCAC reporting to CMS. See Section 4.10.1.	All claims paid by DRG where the HCAC field indicates the presence of HCAC	CCN	CCN, hospital NPI, hospital name, pre-HCAC DRG code, pre-HCAC DRG casemix relative weight, post-HCAC DRG, post HCAC DRG casemix relative weight, days, charges, estimated hospital cost, HCAC category, HCAC payment reduction indicator, post-HCAC price, pre-HCAC price. Sort: Hospital NPI, then HCAC category
14	Monthly, quarterly	Health care-acquired conditions (HCAC) – Manual Payment Adjustment	These indicate claims that require manual review of the HCAC in order to price the claim because to reflect Medi-Cal HCAC policy.	All claims NOT paid by DRG where the HCAC field indicates the presence of HCAC	CCN	CCN, hospital NPI, hospital name, pre-HCAC DRG code, pre-HCAC DRG casemix relative weight, post-HCAC DRG, post HCAC DRG casemix relative weight, days, charges, estimated hospital cost, HCAC category, HCAC payment reduction indicator, price. Sort: Hospital NPI, then HCAC category
15	Quarterly	POA Indicators	Evaluate the appropriate use of POA indicators by trending the frequency of all values. See Section 6.6, # 10.	All claims	POA	Hospital NPI, hospital name, total # of claims, POA field (e.g., values Y, N, W etc.). Sort: Total stays, descending

Notes:

1. Sample reports are listed for consideration by DHCS, and would have to be configured to reflect specific data fields in the paid claims warehouse.
2. CCN=claim control number, LOS=length of stay for the specific claim; ALOS=national average length of stay for the specific APR-DRG.
3. Casemix equals average DRG relative weight. For purposes of reporting, casemix should be measured without reference to any policy adjustors. The reason is that the casemix weights serve as national benchmarks and should change only when national data change.
4. Estimated hospital cost is calculated as submitted-charges times the hospital cost-to-charge ratio.
5. All reports should include a total line.

6.7 Implications for Growth in Hospital Cost

After Medicare implemented DRG payment in 1983, a top hospital industry executive testified to Congress that it was "the most effective cost-containment program ever enacted, successful beyond anyone's expectations."[130] The strong incentives to control cost enabled billions in savings nationwide. As a result, Medicare's growth in payments slowed dramatically even while hospital margins on Medicare patients hit record levels.

The effects of DHCS's implementation of DRG payment will not be nearly as dramatic. In retrospect, U.S. inpatient care in the 1970s and early 1980s was rife with inefficiency, all enabled by cost-based and charge-based reimbursement by Medicare and other payers. Although payers tried to write rules to control costs, their efforts were ineffectual compared with what hospitals could do themselves with the appropriate incentives.

That said, we do think it is likely that DRG payment will help reduce the growth rate in hospital cost over time. The essential reason is that under DRG payment a hospital's revenue is fixed regardless of the hospital's actual cost (except for outlier stays). Therefore any reductions in cost will flow straight to the hospital's bottom line. Just as we saw in Section 3.6.1 when discussing the impact of decreased revenue on hospital profits, the impact on profit is much larger than the impact on total cost. If Medicaid represents 4 percent of total cost in a hospital with a 2 percent margin, then a 10 percent decrease in Medicaid cost would increase profit 20 percent in dollar terms.[131] Although the new payment method was implemented on a budget-neutral basis, over time the greater efficiencies will mean less pressure on DHCS to continually increase hospital payments. This dynamic process was most evident with Medicare in the 1980s, which prompted Congress to extend prospective payment principles to other settings, notably hospital outpatient care, nursing facility care, home healthcare, psychiatric hospitals, and rehabilitation hospitals.[132]

In the Medi-Cal fee-for-service population, where are the potential areas of efficiency improvement? In 2013, we expect that almost four-fifths of Medi-Cal FFS stays, representing about 57 percent of payments, will be in the clinical areas of obstetrics and nursery, newborn intensive care, and pediatrics.[133] Medi-Cal payment methodology has substantial influence in these areas, where Medi-Cal accounts for approximately half of hospital volume, and more than half for many hospitals.[134] These market share figures include managed care, which is outside the scope of DRG payment, but the fee-for-service incentives still will have an impact. We also note that the incentives of Medicare DRG payment have left these clinical areas largely untouched, reflecting Medicare's very low share of the business.

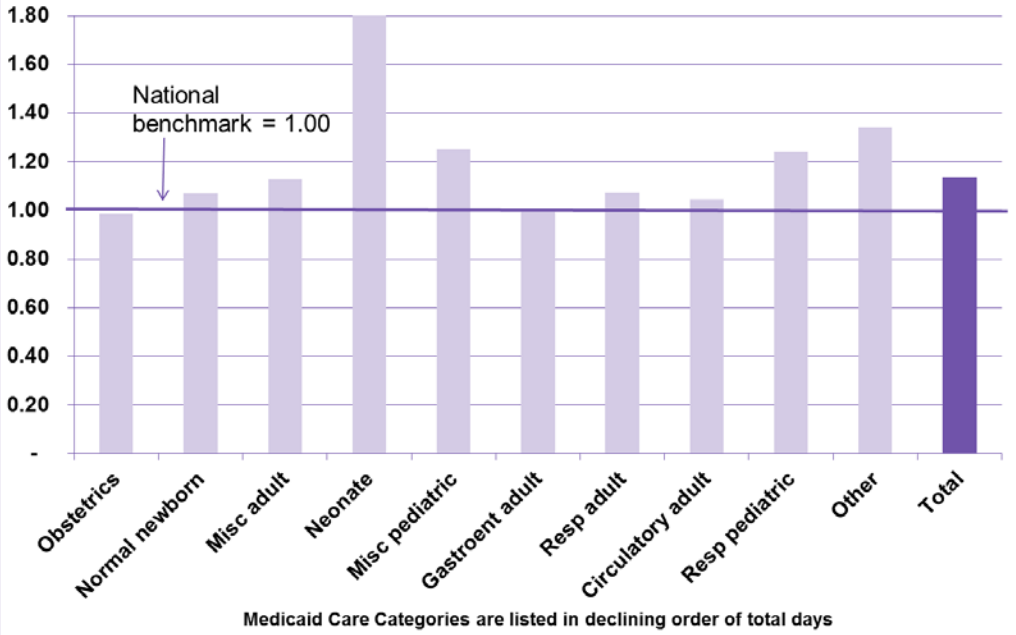
In 2013, we estimated that 23 percent of Medi-Cal FFS stays (representing 21 percent of estimated hospital cost) will be at hospitals that were reimbursed for 100 percent of cost under the previous payment method. These hospitals were previously penalized if they reduced average length of stay or cost per day; under DRG payment, they will retain any savings from efficiency improvements.

The other 77 percent of stays (representing 23 percent of estimated hospital cost) will be at hospitals that previously were paid contractual rates under the Selective Provider Contracting Program. Because the per diem rates were fixed, these hospitals already had incentives to minimize cost per day. However, their previous incentive was to maximize

length of stay; now it will be to minimize length of stay. Although length of stay previously was subject to the treatment authorization request process, experience in Medicare and elsewhere suggests that the hospitals will be more effective in gaining length of stay efficiencies than the TAR process.

Chart 6.7.1 and Table 6.7.1 show comparisons of average length of stay in the simulation dataset with average length of stay (ALOS) at the national level, with both sets of data adjusted for casemix using APR-DRG V.29. A quick look shows the Medi-Cal ALOS as 13 percent higher than the national benchmark, with the difference representing 240,046 days with $530 million in associated hospital cost.[135] However, these figures certainly overstate the potential savings. The chart shows that the "neonate" category has average length of stay 82 percent higher than the national benchmark. Although some of this gap appears to reflect genuine differences in length of stay, the gap also appears to reflect incomplete documentation, coding and capture of diagnosis and procedure codes for sick babies. For example, APR-DRG 634-1, Neonate, Birthweight >2499 Grams with Major Respiratory Condition, has an average length of stay of 26.1 days or nearly six times higher than the national benchmark. But only 49 of the 1,142 claims in the simulation dataset assigned to this DRG included a birthweight on the claim record. If a baby had a major respiratory condition but the birthweight was unspecified, then the grouping algorithm assumed a normal birthweight and defaulted to DRG 634. Within this DRG, the average length of stay was 18.4 days for claims with a birthweight but 26.6 days for claims without a birthweight, which strongly suggests that many the claims were actually for premature babies.

Chart 6.7.1
Comparison of Average Length of Stay with National Benchmark



Because of these potential confounding influences, we have split Table 6.7.1 into non-newborn DRGs and newborn DRGs. For the non-newborn stays, average length of stay was 8 percent higher than the national benchmark, with associated cost of $328 million. Even though improved documentation, coding and capture would probably also have some impact on future DRG assignment, the table strongly suggests that there are potential savings to be gained from reducing length of stay under DRGs. For the newborn stays, presumably not all of the 82 percent difference in days reflects documentation, coding and capture, so we expect there also would be room for efficiency gains. It would be difficult to estimate the magnitude, however.

We should also note some countervailing forces. In reducing length of stay, hospitals may be constrained by California statute on minimum lengths of stay for deliveries. It is also possible that the rate of increase of hospital cost may be reduced in coming years, but that Medi-Cal will be unable to share in any savings. The most likely reason would be higher-than-expected increases in casemix due to improved documentation, coding, and capture of diagnosis and procedure codes, as discussed in Section 3.5.

Table 6.7.1

Comparison of Average Length of Stay with National Benchmarks

DRG	DRG Description	Stays	Days	Est. Hospital Cost	ALOS	Natl ALOS	Ratio	Days Over Benchmk	Associated Cost
DRGs Other Than Newborns									
560-1	Vaginal Del	65,653	128,430	$184,447,091	2.0	2.0	0.97	-	$-
540-1	Cesarean Del	35,519	112,908	$198,893,617	3.2	3.0	1.05	4,930	$8,684,887
560-2	Vaginal Del	19,974	45,936	$72,030,652	2.3	2.4	0.98	-	$-
720-4	Septicemia & Disseminated Inf	2,969	34,319	$100,939,394	11.6	9.6	1.20	5,817	$17,107,843
540-2	Cesarean Del	8,300	33,657	$60,751,527	4.1	4.1	1.00	42	$75,811
005-4	Trach, MV 96+ Hrs, w/o Ext Proc	371	19,616	$56,804,915	52.9	34.1	1.55	6,969	$20,180,021
004-4	Trach, MV 96+ Hrs, w Ext Proc	285	15,833	$58,180,760	55.6	40.8	1.36	4,202	$15,441,438
130-4	Resp Sys Diag w MV 96+ Hrs	531	13,056	$36,374,167	24.6	17.4	1.41	3,795	$10,573,917
540-3	Cesarean Del	2,028	12,592	$22,508,991	6.2	6.8	0.91	-	$-
720-3	Septicemia & Disseminated Inf	1,691	11,831	$25,203,048	7.0	6.3	1.11	1,195	$2,544,824
710-4	Inf & Parasit Dis Inc HIV w O.R. Px	403	10,867	$28,086,847	27.0	18.8	1.43	3,279	$8,473,636
139-3	Oth Pneumonia	1,801	10,275	$21,705,662	5.7	5.5	1.04	424	$894,696
139-2	Oth Pneumonia	2,585	10,006	$19,070,100	3.9	3.8	1.02	157	$299,507
566-2	Oth Antepartum Diags	3,335	8,829	$13,541,929	2.6	3.0	0.90	-	$-
560-3	Vaginal Del	2,379	8,433	$13,549,708	3.5	3.8	0.93	-	$-
860-2	Rehabilitation	454	8,116	$9,133,932	17.9	11.1	1.61	3,068	$3,452,257
194-3	Heart Failure	1,533	8,046	$17,327,305	5.2	5.6	0.94	-	$-
693-2	Chemotherapy	1,810	7,481	$20,361,517	4.1	3.8	1.10	694	$1,887,543
137-3	Maj Resp Inf & Inflammations	763	6,340	$13,144,220	8.3	7.3	1.14	770	$1,596,587
541-1	Vag Del w Ster &/or D&C	2,897	6,234	$13,251,536	2.2	2.1	1.01	63	$134,747
Subtotal top 20		**155,281**	**512,805**	**$985,306,917**	**3.3**	**3.1**	**1.05**	**35,403**	**$91,347,716**
All other		**142,431**	**693,526**	**$1,843,825,379**	**4.9**	**4.4**	**1.10**	**86,133**	**$236,795,520**
Subtotal excluding newborns		**297,712**	**1,206,331**	**$2,829,132,297**	**4.1**	**3.7**	**1.08**	**121,537**	**$328,143,236**

Table 6.7.1

Comparison of Average Length of Stay with National Benchmarks

Newborn DRGs									
640-1	Normal Newborn, Bwt >2499G	133,717	286,736	$140,936,615	2.1	2.1	1.01	3,256	$1,600,371
634-1	Neo, Bwt >2499G w Maj Resp Cond	1,142	29,855	$43,440,284	26.1	4.5	5.80	24,705	$35,946,206
640-2	Normal Newborn, Bwt >2499G	3,233	16,050	$20,078,080	5.0	2.5	2.03	8,129	$10,169,329
636-1	Neo Bwt >2499G w Inf	1,621	13,423	$18,538,034	8.3	5.4	1.52	4,605	$6,359,472
614-1	Neo Bwt 1500-1999G	602	11,910	$15,844,297	19.8	10.8	1.84	5,439	$7,235,030
639-1	Neo Bwt >2499G w Oth Sig Cond	1,075	10,429	$16,656,813	9.7	3.7	2.59	6,409	$10,235,419
634-2	Neo, Bwt >2499G w Maj Resp Cond	495	10,322	$19,026,211	20.9	7.2	2.91	6,778	$12,493,301
626-1	Norm Newborn, Bwt 2000-2499G	754	9,278	$11,681,322	12.3	2.8	4.44	7,189	$9,051,728
634-3	Neo, Bwt >2499G w Maj Resp Cond	265	6,858	$15,680,847	25.9	11.7	2.21	3,760	$8,597,599
593-1	Neo Bwt 750-999G w/o Maj Proc	96	6,533	$9,435,705	68.1	10.4	6.53	5,533	$7,990,928
589-4	Neo Bwt <500G or <24 Wks	85	6,474	$11,484,639	76.2	2.2	34.15	6,284	$11,148,384
631-3	Neo Bwt >2499G w Oth Maj Proc	129	5,066	$13,157,929	39.3	21.0	1.87	2,354	$6,115,138
633-2	Neo Bwt >2499G w Maj Anomaly	247	4,955	$9,017,954	20.1	6.2	3.23	3,419	$6,221,861
633-1	Neo Bwt >2499G w Maj Anomaly	311	4,000	$6,350,912	12.9	2.9	4.47	3,104	$4,928,816
630-3	Neo Bwt >2499G w Maj CV Proc	99	3,717	$13,068,955	37.5	16.6	2.26	2,076	$7,297,730
593-2	Neo Bwt 750-999G w/o Maj Proc	60	3,703	$8,183,208	61.7	44.9	1.37	1,008	$2,227,123
640-3	Normal Newborn, Bwt >2499G	700	3,623	$6,175,216	5.2	3.7	1.41	1,054	$1,796,488
608-1	Neo Bwt 1250-1499G	103	3,616	$4,863,610	35.1	19.1	1.84	1,647	$2,214,772
631-2	Neo Bwt >2499G w Oth Maj Proc	154	3,553	$9,409,018	23.1	7.7	3.00	2,369	$6,272,873
614-2	Neo Bwt 1500-1999G	174	3,349	$5,131,059	19.2	19.4	0.99	-	$-
Subtotal top 20		**145,062**	**443,450**	**$398,160,708**	**3.1**	**2.4**	**1.29**	**99,116**	**$157,902,568**
All other		**3,941**	**82,555**	**$194,932,743**	**20.9**	**17.2**	**1.22**	**19,373**	**$44,326,704**
Subtotal newborn DRGs		**149,003**	**526,005**	**$593,093,451**	**3.5**	**2.8**	**1.28**	**118,489**	**$202,229,272**
All DRGs									
Total		**446,715**	**1,732,336**	**$3,422,225,747**	**3.9**	**3.4**	**1.13**	**240,026**	**$530,372,508**

Notes:

1. This table reflects the simulation baseline dataset. See Section 1.13 for a description of the simulation baseline dataset and other refinements for purposes of ratesetting.
2. Non-designated public hospitals are included in this table. NDPHs were excluded from the dataset used to set the DRG base prices for July 1, 2013. NDPHs will transition to DRG payment starting with admissions beginning on January 1, 2014.
3. See text for caveats in interpreting the table, especially with regard to the newborn DRGs.

7 Business Requirements for CA-MMIS Changes

This section lists all the business requirements for implementation of APR-DRG pricing for Medi-Cal, with revisions as of December 10, 2012, as part of the SDN 12005 requirements review process. As part of the overall update of this Policy Design Document, this chapter reflects updates as of September 26, 2013, to ensure consistency with the DHCS's decisions during ratesetting and the technical system design phase of SDN 12005. Software changes are expected to be needed within the mainframe portion of CA-MMIS and within both Treatment Authorization Review (TAR) data entry applications, Service Utilization Review Guidance and Evaluation system (SURGE) and Service Authorization Request system (SAR). In addition, data repositories downstream of the claims adjudication process, such as Surveillance and Utilization Review Subsystem (SURS) and the Information Technology Services Division (ITSD) decision support system (DSS) will need to be updated to capture a few new fields related to DRG pricing.

7.1 Summary of Requirements

The business requirements are listed in summary form in Table 7.1.1 below and then explained in more detail in the sections that follow. The requirements are categorized by our best estimate of what area of CA-MMIS will be affected by each requirement.

Table 7.1.1
Summary of APR DRG Business Requirements

Requirement Number	CA MMIS Area /Sub system	Requirement Description
Reference Sub-System		
BR-Ref-1	Reference sub-system	Add new system parameters and lists
BR-Ref-2	Reference sub-system	Define new adjudication edits
BR-Ref-3	Reference sub-system	View and update new Reference DRG pricing file online
BR-Ref-4	Reference sub-system	Batch update process for DRG pricing file
Provider Master File		

Table 7.1.1 Summary of APR DRG Business Requirements		
Requirement Number	**CA MMIS Area /Sub system**	**Requirement Description**
BR-Prov-1	Provider sub-system	Allow new fields to be viewable and updateable by staff who maintain the provider master file
BR-Prov-2	Provider sub-system	Batch update for new fields supporting DRG pricing
TAR Entry – SURGE and SARS		
BR-TAR-1	TAR data entry	TAR the admit only, not individual days of a hospital stay, for most stays priced using DRGs
Claim Data Entry		
BR-Clm-Entry-1	Claim data entry	Capture additional fields on inpatient claims
Adjudication Edits		
BR-Adj-Edit-1	Adjudication	Pricing method edits
BR-Adj-Edit-2	Adjudication	Inpatient claim data validity edits
BR-Adj-Edit-3	Adjudication	Hospital-acquired condition and erroneous surgery edits
BR-Adj-Edit-4	Adjudication	DRG pricing parameter edits
BR-Adj-Edit-5	Adjudication	DRG grouping edits
BR-Adj-Edit-6	Adjudication	Post DRG grouping edits
BR-Adj-Edit-7	Adjudication	TAR edits
Claims Pricing		
BR-Pricing-1	Pricing	Add branching logic
BR-Pricing-2	Pricing	Retrieve additional claim data needed for DRG pricing
BR-Pricing-3	Pricing	Add call to diagnosis and procedure code mapper
BR-Pricing-4	Pricing	Build DRG grouping input record
BR-Pricing-5	Pricing	Call health care-acquired condition utility
BR-Pricing-6	Pricing	Add calls to DRG grouping software
BR-Pricing-7	Pricing	Add logic to perform DRG pricing
BR-Pricing-8	Pricing	Store DRG pricing values
BR-Pricing-9	Pricing	Allow users the ability to view claim DRG pricing fields
BR-Pricing-10	Pricing	Price administrative day level 2 claims similarly to administrative day level 1
BR-Pricing-11	Pricing	Add new rehabilitation service per diem pricing logic
Processing Final Claim After Interim Claims		
BR-Final-Clm-1	Adjudication	Voiding interim claims
Reporting DRG Pricing Information		
BR-Rptng-1	Reporting	Remittance advice
BR-Rptng-2	Reporting	Standard DRG pricing reports
BR-Rptng-3	Reporting	Data warehouse extracts
Database Changes		
BR-DB-1	Database	Reference DRG pricing file
BR-DB-2	Database	Provider Master File
BR-DB-3	Database	Claim input from provider side file

Table 7.1.1 Summary of APR DRG Business Requirements		
Requirement Number	**CA MMIS Area /Sub system**	**Requirement Description**
BR-DB-4	Database	Claim DRG pricing file
Data Configuration		
BR-Config-1	Reference and Provider sub-systems	Initial implementation configuration tasks
Data Retention		
BR-Retention-1	Data retention and disaster recovery	Store data for 10 years and add to disaster recovery plan
Other Adjustments		
BR-Other Adjust-1	Share of cost and other healthcare coverage	Continue to be applicable under DRG payment
BR-Other Adjust-2	Timely filing	Continues to be applicable under DRG payment
BR-Other Adjust-3:	Various adjustments identified	Applicability of some payment adjustments
BR-Other Adjust-4:	Lesser of paid or billed	Applicability of lesser of paid or billed logic to paid amount
Note: 1. Some adjudication edits may get added in daily adjudication, while others may make more sense to add in weekly adjudication. Final decision on placement of these edits will be made during the technical design phase.		

7.2 Reference Data System

BR-Ref-1: Add new system parameters and lists

Several new system parameters and four new system lists will need to be added. The parameters and lists are defined in the following table.

A system parameter / list file already exists in CA-MMIS so no database changes are needed for this requirement.

Table 7.2.1 New System Parameters and Lists			
Parameter	**Format**	**Initial Value**	**Notes**
System parameters – One Value			
DRG cutover date	Date	07/01/2013	
Casemix adjustment factor	Numeric	1.000	This will be used to reduce or increase all DRG payments by a specific percentage. It is a multiplier that will be applied to all non-interim claims paid via DRGs.
DRG high (provider loss) cost outlier threshold 1	Numeric, dollar amount	$40,000	All claims with provider loss over this amount will get paid an outlier.

Table 7.2.1 New System Parameters and Lists			
Parameter	**Format**	**Initial Value**	**Notes**
DRG high (provider loss) cost outlier threshold 2	Numeric, dollar amount	$125,000	Claims with provider loss less than this value will receive marginal cost percent 1. Claims with provider loss greater than or equal to this value will also receive marginal cost percent 2.
DRG low (provider gain) cost outlier threshold	Numeric, dollar amount	$40,000	Value is expected to be equal to DRG high side cost outlier threshold 1.
DRG outlier marginal cost percent 1	Percentage or numeric	0.60	60%
DRG outlier marginal cost percent 2	Percentage or numeric	0.80	80%
DRG age threshold	Numeric	21	Beneficiaries with age less than this value will get DRG relative weight age adjustors.
Installed DRG version number	Character string	290	Version 29.0
Installed HAC version number	Character string	300	Version 30.0
Federal fiscal year begin date for installed DRG version	Date	10/01/2011	
Federal fiscal year end date for installed DRG version	Date	09/30/2012	
Interim claim minimum length	Numeric	29	Only interim claims with a length of stay greater than 29 will be payable.
Interim claim per diem rate	Numeric, Dollar Amount	$600	One value will exist for all providers.
System lists – multiple values			
DRG transfer status codes	Character string	“02”, “05”, “65”, “66”	
Rehab APR-DRGs	Character string	“860-1”, “860-2”, “860-3”, “860-4”	
Rehab revenue codes	Character string	“118”, “128”, “138”, “158”	
Manual HCAC Categories Pediatric	Character string	07, 08	07 = Vascular Catheter Associated Infection 08 = Surgical Site Infection - CABG

BR-Ref-2: Define new adjudication edits

Many new claim adjudication edits are required to support DRG pricing. Those edits are described in detail in the section of this document called “Adjudication Edits.” Each of these new edits will need to be defined within the Reference sub-system. Generally, definition of an edit involves assigning an edit number, deciding on the description for the edit, mapping the edit to a standard 835 electronic remittance advice adjustment reason code, setting the edit disposition (suspend, deny, etc.), and detailing instructions for working the edits within suspense correction.

BR-Ref-3: View/update new reference DRG pricing file online

A new Reference DRG pricing file needs to be added to support DRG pricing. This file will need to be viewable and updateable to users who support CA-MMIS reference data. The fields in the file are shown in the following table.

Table 7.2.2

Field Edits for Updates to Reference DRG Pricing File

Column	Format	Validation
DRG_Code	PIC X(05)	Cannot be blank.
Eff_Begin_Dt	Standard CA-MMIS date format	Must be a valid date. Also no two rows should be allowed to have overlapping effective dates for the same DRG code.
Eff_End_Dt	Standard CA-MMIS date format	Must be a valid date and must be equal to or greater than the begin date. Also no two rows should be allowed to have overlapping effective dates for the same DRG code.
DRG_Description	PIC X(100)	Cannot be blank.
DRG_ALOS	PIC 9(03).9(02)	Must be numeric. A value of zero is only acceptable for DRG values “955-0” and “956-0”.
DRG_Casemix_Rel_Wt	PIC 9(03).9(04)	Must be numeric. A value of zero is only acceptable for DRG values “955-0” and “956-0”.
DRG_Svc_Adjstr_All_Others	PIC 9(03).9(02)	Must be numeric. A value of zero is NOT acceptable. The default value for this field will be 1.00.
DRG_Svc_Adjstr_Desig_NICU	PIC 9(03).9(02)	Must be numeric. A value of zero is NOT acceptable. The default value for this field will be 1.00.
DRG_Age_Adjstr	PIC 9(03).9(02)	Must be numeric. A value of zero is NOT acceptable. The default value for this field will be 1.00.
Mcaid_Care_Categ_Adult	PIC X(50)	Cannot be blank.
Mcaid_Care_Categ_Child	PIC X(50)	Cannot be blank.
DRG_On_Review_Ind	PIC X(01)	Valid values will be “Y” and “N”. No claims editing occurs with this field at this time. DHCS will establish back-end processes to pull ad-hoc reports based on the indicator code for any claims that were assigned a DRG code that is “on review.” Note: This field allows DHCS to build editing logic in the future. For example, DHCS may decide to build an edit that will post if the claim is going to price via DRGs and the on-review indicator for the DRG is set to “Y” (yes). The claim then may suspend for review by DHCS. For implementation, this field will be set to “N” for all DRGs.

BR-Ref-4: Batch update process for DRG pricing file

A batch update process will need to be created to load the DRG pricing file. The process should support adds of new rows, changes of existing rows based on a key of DRG code and effective-begin-date, and deletes of existing rows, also based on a key of DRG code and effective-begin-date. The batch load should produce two output reports – one describing what records changed, and another, describing input records rejected with a data error.

Please see the Table 7.2.2 for validations that need to occur in the batch load.

7.3 Provider Master File

BR-Prov-1: Allow new fields to be viewable and updateable

A few new fields have been added to the provider master file to support DRG pricing. Logic was also added to make the new fields viewable and updateable by users. All of these fields are date sensitive. The fields are shown in Table 7.3.1.

	Format	Validation
Inpatient payment method	PIC X(1)	Valid values will be “P” for per diem pricing and “D” for DRG pricing. Other values may also be needed to identify other pricing methods (none to date). For most providers of type 016 and 060, this value will be “D” for dates after the cut-over to DRG pricing. However, the value will be “P” for non-DRG hospitals, such as designated public hospitals as they will continue to be paid via a per diem method.
Cost-to-charge ratio	PIC 9(1)V9(05)	For a provider being paid via DRGs, this value cannot be zero.
DRG base price	PIC 9(09)V9(02)	For a provider being paid via DRGs, this value cannot be zero.
Per-claim add-on payment	PIC 9(09)V9(02)	This field must contain a numeric value. $0.00 is a valid value. All providers are expected to have an initial value of $0.00.
Designated NICU indicator	PIC X(1)	Value must be “Y” or “N”.
Administrative day level 1 per diem	Numeric, dollar amount	Values will be hospital-specific and may vary among hospitals. Value will be stored by provider / revenue code combination in the provider master file as done today. This is the current administrative days per diem.
Administrative day level 2 per diem	Numeric, dollar amount	Values will be hospital-specific and may vary among hospitals. Value will be stored by provider / revenue code combination in the provider master file as done today for the administrative day level 1 per diem. The revenue code will further distinguish services for pediatric and adult beneficiaries. Accommodation code 0190 (Subacute care, General) will be used for pediatric beneficiaries. Accommodation code 0199 (Subacute care, Other subacute care) will be used for adult beneficiaries.
Rehabilitation per diem	Numeric, dollar amount	Values will be hospital-specific and may vary among hospitals. Value will be stored by provider / revenue code combination in the provider master file similar to how per diems are stored today.

Table 7.3.1 Edits for Updates to Provider Specific Fields Supporting DRG Pricing		
Column	**Format**	**Validation**
Date	Standard CA-MMIS date format	This field will be displayed at the bottom of the new PMF screen and populated with the current date. Value format MM/DD/YYYY.

The key for updates to these fields will be provider number and effective-begin-date.

BR-Prov-2: Batch update for new fields supporting DRG pricing

A batch update process will need to be created to load the new provider master file fields needed to support DRG pricing. The values will be date sensitive and only one set of values should be in effect on any single day.

The batch load should produce two output reports – one describing what records changed, and another, describing input records rejected with a data error.

Please see Table 7.3.1 for validations that need to occur in the batch load.

7.4 TAR Data Entry – SURGE and SAR

The changes to Treatment Authorization Request (TAR) requirements will apply to regular Medi-Cal fee-for-service, GHPP, and CCS beneficiaries. Thus, the TAR entry requirements identified below will apply to both the Service Utilization Review Guidance and Evaluation system (SURGE) and the Service Authorization Request system (SAR).

BR-TAR-1: TAR only admit on most inpatient stays

With the implementation of DRG pricing, most inpatient stays will require a TAR only for the admission. TARs will no longer need to specify the number of days authorized. The specific business requirements for changes to TAR editing are listed under requirement “BR-Adj-Edit-7: TAR Edits within Claims Adjudication.” These requirements apply both to TAR data entry and TAR edits on claims, as these two processes work in concert.

7.5 Inpatient Claim Data Entry

BR-Clm-Entry-1: Capture additional fields on inpatient claims

Additional data fields from incoming inpatient claims must be captured to support DRG pricing. Those fields are:

- 25 claim header diagnosis codes
- 25 present-on-admission indicators (associated with the diagnosis codes)
- 25 surgical procedure codes
- 25 surgical procedure dates (associated with the procedure codes)

External cause of injury diagnosis codes will not be separately captured (e.g., form locator 72a through 72c on the UB-04 paper claim form). They will be captured only when listed within the primary or secondary diagnosis fields (e.g., form locator 67A through 67Q on the UB-04 paper claim form).

These fields need to be captured on all inpatient claims, whether submitted electronically (837I) or on paper (UB-04).

Note: On paper claims, some of these fields have fewer instances.

In addition, DRG payment would depend on a single admit-through-discharge claim. The single DRG claim should include accurate data on all of the fields from incoming inpatient claims that are needed for pricing or editing claims using the new DRG pricing logic. This applies to the additional data listed above as well as claims data currently captured by CA-MMIS. It is important to make certain that only one claim is used for DRG pricing and that all claims data for the whole stay are used. This will ensure accurate DRG assignment (e.g., using all submitted diagnosis and procedures), enable accuracy in applying the DRG pricing logic (e.g., using all submitted charges in outlier pricing), allow enforcement of branching logic (e.g., using revenue codes that identify claims paid by per diem instead of DRG in the case of rehabilitation, administrative day, interim claims), enable claims editing (e.g., POA for HCACs, type of bill, discharge status, etc.), and avoid duplicate payment for the same stay (e.g., submitting more than one claim for a single stay or split billing).

This data must be easily accessible to the inpatient claims pricing process performed within claims adjudication using CCN as the primary key. Once a claim has been paid, the record for that claim can be moved to a historical file that is less easily accessible. However, the claim adjustment process must be able to retrieve these fields when making a new copy of a claim. In addition, the fields will need to be accessible for extracts to data warehouses and accessible for standard claim audits.

Requirements for capture of additional fields on inpatient claims are also described in requirements BR-Pricing-2 and BR-DB-3.

7.6 Adjudication Edits

BR-Adj-Edit-1: Pricing method edit

Nearly all the new edits described in this section apply only to claims that will be priced via DRGs. So one of the first steps in the adjudication of an inpatient claim will need to be determination of whether or not the claim will price via the new DRG methodology. And edits need to be defined to catch the unlikely scenario of being unable to determine how the claim will price. Those two edits are shown in Table 7.6.1 and should apply to all inpatient claims in which the provider type is 016 or 060.

Table 7.6.1
Inpatient Pricing Method Claim Exceptions

Edit #	Description	Draft Disposition	Logic	Notes
A	Provider inpatient payment method not found	Data validation error message	This edit will post if the inpatient payment method indicator on the provider master file is blank or contains an invalid value.	This will be a data validation error message on the Provider Master File.
B	APR-DRG cutover date not found	Data validation error message	This edit will post if the APR-DRG pricing cutover date in the system parameter table is missing or blank or zero.	This will be a data validation error message in the new DRG System Parameter Table that simply says, “DRG cutover date not found”.

BR-Adj-Edit-2: Inpatient claim data validity edits

This section describes edits of basic inpatient claim data that must be valid to price a claim under a DRG methodology. These edits should apply to inpatient claims pricing via DRGs.

Table 7.6.2
Inpatient Claim Data Validity Exceptions

Edit #	Description	Draft Disposition	Logic	Notes
C	Rehabilitation revenue code not found	Data validation error message	This edit will post if the provider is configured to price via DRGs (provider inpatient pricing method code is “D”) and the rehabilitation revenue code is not found on the system parameter.	This will be a data validation error message in the new DRG System Parameter Table that simply says, “Rehab revenue code not found.”

Table 7.6.2 Inpatient Claim Data Validity Exceptions				
Edit #	**Description**	**Draft Disposition**	**Logic**	**Notes**
D	Invalid mix of services on the same inpatient claim	Deny claim	This edit will post if the provider is configured to price via DRGs (provider inpatient pricing method code is "D") and revenue codes are found on the claim line items for more than one of the following 4 categories of service. The 4 categories of service are: 1. Administrative day level 1 – identified by revenue code 169. 2. Administrative day level 2 – identified by revenue codes 190 (for pediatric beneficiaries) or199 (for adult beneficiaries). 3. Rehab services – identified by revenue codes 118, 128, 138, or 158 4. Acute care accommodation code – all values between 100 and 219 except 118, 128, 138, 158, 169, 190 and 199. Claims price differently under each of these categories, so any claim with revenue codes from more than one of these categories cannot be priced and needs to be denied.	Revenue codes 190 and 199 will be used for administrative day level 2.
E	Invalid type of bill	Deny claim	This edit will post if the provider is configured to price via DRGs (provider inpatient pricing method code is "D") and the type of bill on the claim is invalid. Valid types of bill are available in the UB-04 billing manual.	This is an existing edit in CA-MMIS (error code 3029).
New	Invalid type of bill code for DRG Claim	Deny claim	This edit will post if the provider is configured to price via DRGs (provider inpatient pricing method code is "D") and the type of bill equals blank or any type of bill code other than 111, 112 or 113.	
G	Patient discharge status and bill type mismatch	Deny claim	This edit will post if the provider is configured to price via DRGs (provider inpatient pricing method code is "D") and 1. (The type of bill is 112 or 113) AND (discharge status is not 30) OR 2. (Type of bill is 111) AND (discharge status is 30)	
H	Interim claim minimum length of stay not found	Data validation error message	This edit will post if the provider is configured to price via DRGs (provider inpatient pricing method code is "D") and the interim claim minimum length of stay value in the system parameter table is missing or blank or zero.	This will be an error message in the new DRG System Parameter table that simply says, "Interim claim minimum length of stay not found".

Table 7.6.2

Inpatient Claim Data Validity Exceptions

Edit #	Description	Draft Disposition	Logic	Notes
I	Interim claim too short length of stay	Deny claim	This edit will post if the provider is configured to price via DRGs (provider inpatient pricing method code is "D") and the discharge status 30 and the length of stay is less than or equal to the length of stay threshold for interim claims, and the type of bill equals 112 or 113. That minimum length of stay threshold will be stored as a new system parameter.	The interim claim length of stay threshold will be set to 29 days. So only interim claims with length of stay greater than 29 days will be payable. Note: The value of this parameter can be changed by DHCS via an OIL, if needed in the future.
J	Services for mother and newborn not billable on the same claim	Deny claim	This edit will post if the provider is configured to price via DRGs (provider inpatient pricing method code is "D") and a revenue code in the set of 112, 122, 132, 152, and a revenue code in the range of 170 – 179 are billed on different lines on the same claim.	
New	Voided interim claim cannot be adjusted	Suspend	This edit will post when a provider attempts to adjust an interim claim that was voided.	The claim will suspend as duplicate of a previous adjustment claim.

Note:

1. Edit is marked "new" refer to edits added during the SFD phase of SDN 12005 while the original edit was deleted.

BR-Adj-Edit-3: HCAC and erroneous surgery edits

The Center for Medicare and Medicaid Services (CMS) has come out with a new directive requiring Medicaid programs to avoid paying for health care-acquired conditions (HCACs) and erroneous surgeries (together these conditions are also known as provider preventable conditions or PPCs). Because DRG pricing is one of the easiest methods for avoiding payment for HCACs, the requirements for meeting CMS' HCAC mandate are being included with this DRG SDN. One of those requirements is to add a few adjudication edits to CA-MMIS.

Table 7.6.3

Inpatient Claim HCAC/Erroneous Surgery Exceptions

Edit #	Description	Draft Disposition	Logic	Notes
L	Erroneous surgery performed	Suspend claim	This edit will post if diagnosis code E876.5, E876.6, or E876.7 is found as a principal diagnosis or secondary diagnosis.	
M	Identify claims with a HCAC, but no change in DRG	Pay and report	This edit will post when the HCAC utility identifies a health care-acquired condition (HCAC) on the claim, but the HCAC did not cause a change in the DRG (pre-HCAC DRG and post-HCAC DRG are the same).	This will be an indicator added to the claim instead of an edit. "Pre-HCAC" refers to the DRG before the HCAC diagnosis and/or procedures have been disregarded in the DRG assignment. "Post-HCAC" refers to the DRG after the HCAC diagnosis/procedures have been disregarded in the DRG assignment. The HAC Utility is run and returns both of these DRGs.
N	Identify claims with a HCAC and change in the DRG	Pay and report	This edit will post when the HCAC utility identifies a health care-acquired condition (HCAC) on the claim, and the HCAC caused a change in the DRG (pre-HCAC DRG and post-HCAC DRG are different).	This will be an indicator added to the claim instead of an edit. In this case, a new payment RAD code (0455) will also be added to the claim. "Pre-HCAC" refers to the DRG before the HCAC diagnosis and/or procedures have been disregarded in the DRG assignment. "Post-HCAC" refers to the DRG after the HCAC diagnosis/procedures have been disregarded in the DRG assignment. The HAC Utility returns both of these DRGs.

BR-Adj-Edit-4: DRG pricing parameter edits

Table 7.6.4 lists edits that should post if configuration fields needed to price via DRGs cannot be found. These edits are expected to be handled via entry error messages because they are all an indication that some configuration data has not been loaded correctly in CA-MMIS. A claim should never deny for any of these edits. Instead, when these post, the appropriate configuration data should be loaded. There are a few exceptions and those are mentioned in the Logic column.

Table 7.6.4
Inpatient Claim DRG Pricing Parameter Exceptions

Edit #	Description	Draft Disposition	Logic	Notes
O	DRG base price not found	Data validation error message	This edit will post if the provider is configured to price via DRGs and the DRG base price on the provider master file is missing, blank, zero, or non-numeric.	This field will be added to the PMF File as a separate DRG provider-specific screen.
P	Provider cost-to-charge ratio not found	Data validation error message	This edit will post if the provider is configured to price via DRGs and the cost-to-charge ratio on the provider master file for the provider is missing, blank, zero, or non-numeric.	This field will be added to the PMF File on the separate DRG provider-specific screen.
Q	DRG age threshold not found	Data validation error message	This edit will post if the provider is configured to price via DRGs and DRG age in the system parameter table is missing, blank, zero, or non-numeric.	This will be a new edit (error message) on the new DRG System Parameter Table that simply says, “DRG age threshold not found”.
R	DRG provider loss outlier threshold 1 not found	Data validation error message	This edit will post if the provider is configured to price via DRGs and DRG provider loss outlier threshold 1 in the system parameter table is missing, blank, zero, or non-numeric.	This will be a new edit (error message) on the new DRG System Parameter Table that simply says, “DRG provider loss outlier threshold 1 not found not found”.
S	DRG provider loss outlier threshold 2 not found	Data validation error message	This edit will post if the provider is configured to price via DRGs and DRG provider loss outlier threshold 2 in the system parameter table is missing, blank, zero, or non-numeric.	This will be a new edit (error message), on the new DRG System Parameter Table that simply says, “DRG provider loss outlier threshold 2 not found”.
T	DRG casemix adjustment factor not found	Data validation error message	This edit will post if the provider is configured to price via DRGs and the DRG casemix adjustment factor in the system parameter table is missing, blank, zero, or non-numeric.	This will be a new edit (error message) on the new DRG System Parameter Table that simply says, “DRG casemix adjustment factor not found”.
U	DRG provider gain outlier threshold not found	Data validation error message	This edit will post if the provider is configured to price via DRGs and the DRG provider gain outlier threshold in the system parameter table is missing, blank, zero, or non-numeric.	This will be a new edit (error message) on the new DRG System Parameter Table that simply says, “DRG provider gain outlier threshold not found”.

Table 7.6.4 Inpatient Claim DRG Pricing Parameter Exceptions				
Edit #	**Description**	**Draft Disposition**	**Logic**	**Notes**
V	DRG marginal cost percent 1 is not found	Data validation error message	This edit will post if the provider is configured to price via DRGs and DRG marginal cost percent 1 in the system parameter table is missing, blank, zero, or non-numeric.	This will be a new edit (error message) on the new DRG System Parameter Table that simply says, “DRG marginal cost percent 1 not found”.
W	DRG marginal cost percent 2 is not found	Data validation error message	This edit will post if the provider is configured to price via DRGs and DRG marginal cost percent 2 in the system parameter table is missing, blank, zero, or non-numeric.	This can be a new edit (error message) on the new DRG System Parameter Table that simply says, “DRG marginal cost percent 2not found”.
X	DRG transfer status code list is not found	Data validation error message	This edit will post if the provider is configured to price via DRGs and the DRG transfer codes in the system parameter are not found.	This will be a new edit (error message) on the new DRG System Parameter Table that simply says, “DRG transfer status codes not found”.
Y	Manual HCAC categories, pediatric not found	Data validation error message	This edit will post if the provider is configured to price via DRGs and the manual HCAC category in the system parameter is not found.	This will be a new edit (error message) on the new DRG System Parameter Table that simply says, “Manual HCAC Categories Pediatric codes not found”.
Z	Installed DRG version parameter not found	Data validation error message	This edit will post if the provider type is 016 or 060 and the installed DRG version system parameter is not found or is blank.	This will be a new edit (error message) on the new DRG System Parameter Table that simply says, “Installed DRG version number not found”.
New	Installed HAC version parameter not found	Data validation error message	This edit will post if the provider type is 016 or 060 and the installed HAC utility version system parameter is not found or is blank.	This will be a new edit (error message) on the new DRG System Parameter Table that simply says, “Installed HAC version number not found”.
AA	DRG fiscal year begin date parameter not found	Data validation error message	This edit will post if the provider is 016 or 060 and the installed DRG grouper fiscal year begin date system parameter is not found or is blank or is not a valid date.	This will be a new edit, (error message) on the new DRG System Parameter Table that simply says, “Federal fiscal year begin date not found”.
AB	DRG fiscal year end date parameter not found	Data validation error message	This edit will post if the provider is 016 or 060 and the installed DRG grouper fiscal year end date system parameter is not found or is blank or is not a valid date.	This will be a new edit (error message) on the new DRG System Parameter Table that simply says, “Federal fiscal year end date not found”.
AC	Rehab DRG system parameter is not found	Data validation error message	This edit will post if the provider is configured to price via DRGs, the claim is inpatient (not inpatient crossover) and the rehabilitation DRG system parameter is not found.	This will be a new edit on the new DRG System Parameter Table that simply says, “Rehab APR-DRGs codes not found”.

BR-Adj-Edit-5: DRG grouping edits

There are a series of edits performed by the DRG grouper that when triggered will cause a non-zero value to be sent back in the return code. These non-zero return codes will need to be translated into CA-MMIS error codes. The mapping of non-zero return codes to CA-MMIS edits is shown in Table 7.6.5. These edits should apply to inpatient claims for providers with provider type 016 or 060.

Table 7.6.5

Inpatient Claim DRG Grouping Exceptions

Edit #	Description	Draft Disposition	Logic	Notes
AG	ICD code mapping error	Suspend	This edit will post if the claim is going to price via DRGs and the ICD code mapping software sends back a non-zero return code.	This is not really a DRG grouping error, but has been included in the DRG grouping category of edits as the ICD code mapping is only performed to enable accurate DRG grouping. Mapping errors are extremely rare and generally are an indication that the mapping software is not installed correctly. This will be a 'SYSOUT' error message.
AH	Invalid principal diagnosis code	Deny claim	This edit will post if the claim is going to price via DRGs and the APR-DRG assigned to the claim is 955-0 or the DRG grouper return code is 1.	
AI	Valid DRG code could not be determined	Deny claim	This edit will post if the claim is going to price via DRGs and the APR-DRG assigned to the claim is 956-0 and the return code is zero, or the return code is 2, or the return code is 11, or the return code is non-zero and there is no mapping of the return code to a DRG specific edit.	
AJ	DRG invalid beneficiary age	Deny claim	This edit will post if the claim is going to price via DRGs and the return code from the grouper is 3 or 9.	
AK	DRG invalid beneficiary gender	Deny claim	This edit will post if the claim is going to price via DRGs and the return code from the grouper is 4.	
AL	DRG invalid discharge status	Deny claim	This edit will post if the claim is going to price via DRGs and the return code from the grouper is 5.	
AM	DRG invalid birth weight	Deny claim	This edit will post if the claim is going to price via DRGs and the return code from the grouper is 6.	
AN	DRG gestational age and birth weight conflict	Deny claim	This edit will post if the claim is going to price via DRGs and the return code from the grouper is 12.	

BR-Adj-Edit-6: Post DRG grouping edits

Four new edits need to be performed after the DRG is assigned to the claim. These edits are shown in Table 7.6.6 and should apply to inpatient claims for providers with type 016 and 060.

Table 7.6.6

Inpatient Claim Post DRG Grouping Exceptions

Edit #	Description	Draft Disposition	Logic	Notes
AO	Rehab claim without rehab revenue code	Deny claim	Post if the claim groups to a rehab APR-DRG (stored in a system parameter table) and does not contain a rehab revenue code (also stored in a system parameter table).	The rehab APR-DRGs will be 860-1, 860-2, 860-3, and 860-4, and the list of rehab revenue codes is 118, 128, 138, and 158. Both the rehab DRGs and the rehab revenue codes will be stored in the new DRG System Parameter Table.
AP	DRG not on file	Auto-deny	This edit will post if the claim is going to price via DRGs and the DRG returned from the grouper is not found in the Reference DRG pricing file.	Auto-deny with error code. Provider training and billing tips will include this and other DRG-related edits.
AR	DRG relative weight missing	Data validation error message	This edit will post if the claims is going to price via DRGs, and the DRG codes is NOT equal to “955-0” and NOT equal to “956-0” and any of the following fields are blank, zero, or non-numeric: DRG_Casemix_Rel_Wt DRG_Svc_Adjstr_All_Others DRG_Svc_Adjstr_Desig_NICU DRG_Age_Adjstr	This is a data validation error message on the DRG Reference File.

BR-Adj-Edit-7: TAR edits within claims adjudication

Today a TAR is required for each day of every inpatient hospital stay except those for vaginal deliveries with length of stay less than 3 days and cesarean deliveries with length of stay less than 5 days. When DRG pricing is implemented, most inpatient stays will only require a TAR for the admission, not for each individual day the beneficiary is in the hospital. However, there will be a variety of exceptions to this rule. For each exception the existing TAR process will apply, which, in most or all cases, involves a TAR for each day of a hospital stay. The specific exceptions to this change requiring a TAR only on the admission are listed below.

- Providers that are not being paid under the DRG method will continue their current daily TAR process. This includes, for example, designated public hospitals. (A Provider Payment Indicator "D" or "P" will be stored on the provider master file identifying those providers paid via DRGs or per diem, respectively.)

- Some services will not be paid via DRGs even if they are performed at a general acute care facility in which most services will be paid via DRGs. These services include administrative day level 1, administrative day level 2, and rehabilitation. For these services, the existing process including daily TARs will continue to be required. Claims for level 1 administrative day will be identified by the presence of revenue code 169. Claims for level 2 administrative days will be identified by the presence of revenue code 190 (pediatric) or 199 (adult). Claims for rehabilitation services will be identified by the presence of revenue code 118, 128, 138, and/or 158.

- For DRG hospitals, payment for rehabilitation services will be based on a hospital-specific per diem amount, adjusted by the hospital-specific wage index, in the same manner as the DRG base price is adjusted. Per diem rates were established by DHCS for services provided to adult beneficiaries (age 21 and over), pediatric beneficiaries (under age 21), and a blended rate for DRG hospitals that provided rehabilitation services to adult and pediatric populations. The hospital-specific per diem rates for rehabilitation services will be added to the provider master file.[136]

- Claims for beneficiaries with restricted benefit aid codes will continue to require daily TARs if the hospital stay is unrelated to delivery of a baby. Claims for these beneficiaries need a daily TAR because Federal Financial Participation rules require no payment for procedures that are non-emergency. A daily audit through the TAR process is needed to ensure that only emergency services get reimbursed. Claims with restricted benefit aid codes will be identified as any claim assigned a beneficiary benefit aid code whose description is not "Full" or "Full benefits".

- Obstetric admissions for the delivery of a baby will not require any authorization. This is similar to current TAR rules. However, under current TAR rules obstetric admissions including induction that start the day before a baby is born and unusually long obstetric stays (greater than 2 days for a vaginal delivery and greater than 4 days for a cesarean section delivery) required a TAR. For facilities being priced using DRGs, no obstetric admissions for the delivery of a baby will require any authorization.

A summary of the TAR/SAR requirements for inpatient claims is shown in Table 7.6.7.

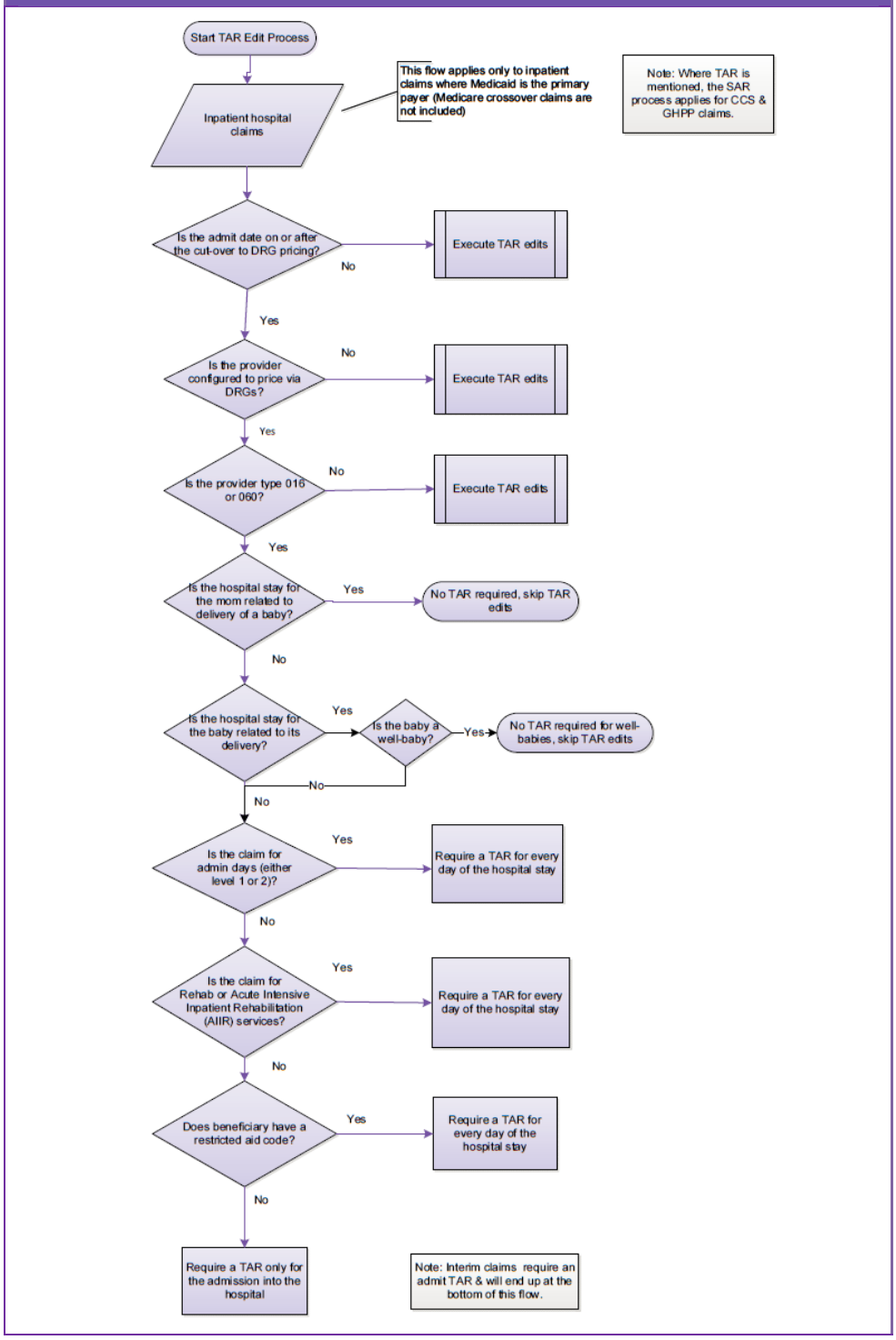
Table 7.6.7 TAR/SAR Entry Business Requirements for Inpatient Claims after DRG Pricing is Implemented			
Type of Stay	**TAR/SAR Approach Current**	**TAR/SAR Approach New**	**Paid under DRGs**
General Acute Care – Full Scope			
General acute care inpatient stay – complete stay	TAR every day	TAR admission only	Yes
General acute care inpatient stay – interim claim	TAR every day	TAR admission only	Paid per diem (until final claim is submitted), then paid by DRG for final payment
CCS and GHPP			
CCS and GHPP beneficiaries – complete stay	SAR every day	SAR admission only	Yes
CCS and GHPP beneficiaries – interim claim	SAR every day	SAR admission only	Paid per diem (until final claim is submitted), then paid by DRG for final payment
General Acute Care- Restricted Aid Codes			
General acute care inpatient stay – complete stay	TAR every day, including review to ensure all services are emergency services	No change; TAR every day, including review to ensure all services are emergency services	Yes – With review for potential payment cutback if any days are denied
General acute care inpatient stay – interim claim	TAR every day, including review to ensure all services are emergency services	No change; TAR every day, including review to ensure all services are emergency services	Paid per diem (until final claim is submitted), then paid by DRG for final payment. With review for potential payment cutback if any days are denied.
Obstetrics (OB) with Delivery – Full Scope or Restricted			
OB admission with delivery	No TAR required	No TAR required	Yes
OB with induction day before delivery	TAR every day	No TAR required	Yes
OB prolonged stays- vaginal greater than 2 days; c-sect greater than 4 days	TAR every day	No TAR required	Yes
Obstetrics (OB) non-delivery			
OB admission non-delivery – full scope	TAR everyday	TAR admission only	Yes
OB admission non-delivery with restricted aid codes	TAR everyday	TAR every day	Yes
Other			
Well-baby stays admission - full scope and restricted aid codes (maternal aid codes used)	Not applicable – well-baby (newborns) were billed on the mother's claim	No TAR required	Yes – separate claim
Neonate (sick-baby) stays admission – full scope and restricted aid codes (maternal aid codes used)	TAR everyday	TAR admission only	Yes
Designated public hospitals and non-designated public hospitals	Separate process	Continue separate process	No
Administrative day level 1	TAR every day	TAR every day	No - paid per diem
Administrative day level 2 (currently referred to as subacute)	TAR every day (acute days currently given)	TAR every day	No – paid per diem
Rehabilitation stays - Acute Intensive Inpatient Rehab (AIIR)	TAR every day	TAR every day	No – paid per diem

Notes:

1. The SAR system is a DHCS-supported system and system modifications are the responsibility of DHCS staff.
2. Outliers will be monitored using an analytical oversight process. DHCS may decide to focus TAR review for outliers as the findings indicate.
3. Data exclude designated public hospitals and include non-designated public hospitals (which were excluded from the dataset used to set the DRG base prices for July 1, 2013). NDPHs will transition to DRG payment starting with admissions beginning on January 1, 2014.

These TAR requirements are also depicted in the following Flowchart 7.6.7.

Flowchart 7.6.7



The logic for editing the claim against the specifics of the TAR will be as shown in Table 7.6.8 and should apply to inpatient claims pricing via DRGs. For these claims a TAR not on file edit should also be executed. This is undoubtedly an existing edit within CA-MMIS and matches the TAR number the provider ID and the beneficiary ID on the claim against TARs in the TAR file.

Table 7.6.8

Inpatient Claim TAR Exceptions

Edit #	Description	Draft Disposition	Logic	Notes
AS	Date of admission not covered within the dates of service on the TAR	Deny claim	This edit will post if: • The claim is going to price via DRGs and • The beneficiary has full benefits (as defined by the benefit aid code) and • The claim is not for delivery of a baby and • The claim is not for a well-baby and • The date of admission on the claim is outside the dates of service on the TAR.	The list of procedure codes used to identify delivery stays already exists in CA-MMIS and is shown in Table 7.6.9.

A well baby is identified by revenue code 171 which does not require a TAR if that is the only revenue code on the claim. If a baby claim must document a sick baby, then revenue codes 172, 173 or 174 are used, which require a TAR. If a well-baby becomes a sick baby, then revenue code 171 will be on the claim in addition to another revenue code for the sick baby – any revenue code could be used even though 172, 173 or 174 is preferred. This situation still requires a TAR.

Table 7.6.9 shows a tentative list of the procedure codes used to identify delivery hospital stays.

Table 7.6.9

Procedure Codes Identifying Delivery Stays

Omit Diagnostic Code ID	Admitting Procedure Code	Description	Vaginal / Cesarean Ind.
Procedure Codes			
1	72	Forceps, vacuum, and breech delivery	1
2	72.0	Low forceps operation	1
3	72.1	Low forceps operation with episiotomy	1
4	72.2	Mid forceps operation	1
5	72.21	Mid forceps operation with episiotomy	1
6	72.29	Other mid forceps operation	1
7	72.3	High forceps operation	1
8	72.31	High forceps operation with episiotomy	1

Table 7.6.9 Procedure Codes Identifying Delivery Stays			
Omit Diagnostic Code ID	**Admitting Procedure Code**	**Description**	**Vaginal / Cesarean Ind.**
9	72.39	Other high forceps operation	1
10	72.4	Forceps rotation of fetal head	1
11	72.5	Breech extraction	1
12	72.51	Partial breech extraction with forceps to after coming head	1
13	72.52	Other partial breech extraction	1
14	72.53	Total breech extraction with forceps to after coming head	1
15	72.54	Other total breech extraction	1
16	72.6	Forceps application to after coming head	1
17	72.7	Vacuum extraction	1
18	72.71	Vacuum extraction with episiotomy	1
19	72.79	Other vacuum extraction	1
20	72.8	Other specified instrumental delivery	1
21	72.9	Unspecified instrumental delivery	1
22	73	Other procedures inducing or assisting delivery	1
23	73.0	Artificial rupture of membranes	1
24	73.01	Induction of labor by artificial rupture of membranes	1
25	73.09	Other artificial rupture of membranes	1
26	73.1	Other surgical induction of labor	1
27	73.2	Internal and combined version and extraction	1
28	73.21	Internal and combined version without extraction	1
29	73.22	Internal and combined version with extraction	1
30	73.3	Failed forceps	1
31	73.4	Medical induction of labor	1
32	73.5	Manually assisted delivery	1
33	73.51	Manually rotation of fetal head	1
34	73.59	Other manually assisted delivery	1
35	73.6	Episiotomy	1
36	73.8	Operations on fetus to facilitate delivery	1
37	73.9	Other operations assisting delivery	1

Table 7.6.9 Procedure Codes Identifying Delivery Stays			
Omit Diagnostic Code ID	**Admitting Procedure Code**	**Description**	**Vaginal / Cesarean Ind.**
38	73.91	External version	1
39	73.92	Replacement of prolapsed umbilical cord	1
40	73.93	Incision of cervix to assist delivery	1
41	73.94	Pubiotomy to assist delivery	1
42	73.99	Other	1
43	74	Cesarean section and removal of fetus	2
44	74.0	Classical cesarean section	2
45	74.1	Low cervical cesarean section	2
46	74.2	Extraperitoneal cesarean section	2
47	74.3	Removal of extratubal ectopic pregnancy	2
48	74.4	Cesarean section of other specified type	2
49	74.99	Other cesarean section of unspecified type	2

Note:

1. The list of procedure codes used to identify delivery stays already exists in CA-MMIS and is shown here. Procedure codes 68.3 and 68.4 have been removed from this table. These procedures can be listed and do not currently require a TAR in addition to a delivery code. In the future, DHCS may decide to change the current TAR logic for these codes via a separate SDN.

7.7 Claims Pricing

BR-Pricing-1: Add branching logic

Branching logic will need to be added to ensure claims price under appropriate methods. After implementation of DRG pricing, most inpatient claims, but not all, will price via the DRG method. Some claims will continue to price under their current method and others will price under new methods that will take effect only after DRG pricing is implemented. So logic will need to be added to ensure claims flow down the appropriate path of logic in order to be priced correctly. Table 7.7.1 shows the different scenarios and the pricing method that will apply under each scenario. These scenarios only apply to claims from providers whose provider type is 016 or 060.

Table 7.7.1 Pricing Methods for Types of Inpatient Claims		
Scenario	**How Identified**	**Pricing Method**
Claim admit date is prior to cutover to DRG pricing	Claim admit date is less than the DRG pricing cutover date stored in a system parameter.	Under contract or non-contract reimbursement methodology.
For all the following scenarios, the admit date on the claim is on or after the DRG pricing cut-over date		
Provider is a designated public hospital or non-designated public hospital	The new payment method indicator field stored on each provider record will be a value "P" for per diem hospitals.	Pricing method for non-DRG hospitals such as certified public expenditures (CPE) reimbursement methodology and other non-DRG payment methods. (For example, DRG pricing will not be used for designated public hospitals.) Note: NDPHs will transition to DRG payment on January 1, 2013.
Claim is for administrative days, level 1 or 2	Claim contains revenue code 169, 190 or 199	This applies to DRG reimbursed hospitals only (payment method "D"). Current pricing method including per diem payment for revenue code 169 and separate payment for ancillary services. Administrative day level 2 claims will receive a different per diem than level 1 claims, but will otherwise price the same as level 1 including payment for select ancillary services. Administrative day level 2 will be identified by the presence of revenue codes 190 or 199. The new administrative days level 2 services will be further distinguished by the specific revenue code: administrative day level 2 – Subacute Pediatric (0190) and administrative day level 2 – Subacute Adult (0199).
Claim is for rehabilitation services	Claim contains revenue code 118, 128, 138, and/or 158	This applies to DRG reimbursed hospitals only (payment method "D"). Claim will price under a per diem payment method with the per diem applied only to service lines with revenue code 118, 128, 138, or 158. No other revenue codes on the claim will be payable on rehab claims. (See BR-Adj-Edit-7: TAR edits within claims adjudication and Section 5.5 for details on rehab rates)
Interim stay claim	Patient discharge status is 30 and type of bill 112 or 113	This applies to DRG reimbursed hospitals only (payment method "D"). Claim will price under a per diem payment method with the per diem multiplied by the length of stay for all services within the "from-through" dates on the claim.
All other scenarios	None of the above scenarios hit	This applies to DRG reimbursed hospitals only (payment method "D"). Claim will price under the new DRG pricing method.

Notes:

1. These scenarios only apply to claims from providers whose provider type is 016 or 060.
2. A new edit will be added to deny any claim that falls into more than one pricing category, where the pricing categories are: DRG, administrative day level 1, administrative day level 2, and rehabilitation (Table 7.6.2).

BR-Pricing-2: Retrieve additional claim data for DRG pricing

Additional claim data submitted by providers and needed for DRG pricing will be stored in a file separate from the claim activity file/record. This data will need to be retrieved in order to perform DRG pricing. The data includes:

- Up to 25 claim header diagnosis codes
- Up to 25 present-on-admission indicators (associated with the diagnosis codes)
- Up to 25 surgical procedure codes
- Up to 25 surgical procedure dates (associated with the procedure codes)

External cause of injury diagnosis codes will not be separately captured (e.g., form locator 72a through 72c on the UB-04 paper claim form). They will be captured only when listed within the secondary diagnosis fields (e.g., form locator 67A through 67Q on the UB-04 paper claim form).

The external cause of injury diagnosis codes are not actually needed for DRG pricing. They are only needed for the new erroneous surgery edit. It may make sense to retrieve these diagnosis codes during claim pricing and perform the erroneous surgery edit in claim pricing, but it would certainly also be acceptable to retrieve this data and perform this edit elsewhere within the adjudication cycle. The new erroneous surgery edit will apply when the E-codes are present in the principal or first secondary diagnosis code fields.

These fields need to be captured on all inpatient claims, whether submitted electronically (837I) or on paper (UB-04).

Note: On paper claims, some of these fields have fewer instances.

In addition, DRG payment would depend on a single admit-through-discharge claim. The single DRG claim should include accurate data on all of the fields from incoming inpatient claims that are needed for pricing or editing claims using the new DRG pricing logic. This applies to the additional data listed above as well as claims data currently captured by CA-MMIS. It is important to make certain that only one claim is used for DRG pricing and that all claims data for the whole stay is used. This will ensure accurate DRG assignment (e.g., using all submitted diagnosis and procedures), enable accuracy in applying the DRG pricing logic (e.g., using all submitted charges in outlier pricing), allow enforcement of branching logic (e.g., using revenue codes that identify claims paid by per diem instead of DRG in the case of rehabilitation, administrative day, interim claims), enable claims editing (e.g., POA for HCACs, type of bill, discharge status, etc.), and avoid duplicate payment for the same stay (e.g., submitting more than one claim for a single stay or split billing).

The expectation is that this additional claim data will be stored and retrieved much the same way the electronic remittance advice (835) process under EDI 5010 will retrieve fields from the 837I to populate the 835.

BR-Pricing-3: Add call to diagnosis/procedure code mapper

A call to a mainframe-based third-party software application called the diagnosis and procedure code mapper will need to be added. This software is written by 3M. If the software sends back a non-zero return code, an MMIS edit should post to the claim, as mentioned in Table 7.6.5.

The ICD mapping software only needs to be called if the admit date on the claim is outside of the federal fiscal year recognized by the DRG grouper. For example, when DRG pricing is implemented the version of the DRG grouper that will be installed is version 29. Version 29 was released in federal fiscal year 2012, which started on October 1, 2011 and ended on September 30, 2012. If the claim has an admit date in this federal fiscal year, the ICD mapping software does not need to be called. If on the other hand, the claim's admit date is outside this 12-month period (less than October 1, 2011 or greater than September 30, 2012), then the ICD mapping software does need to be called.

The begin and end dates of the federal fiscal year recognized by the installed version of the DRG grouper and of the HAC Utility will be stored in system parameters to support the decision on whether or not the ICD mapping software needs to be called. And these system parameters will need to be updated each time a new version of the APR-DRG grouping software or of the HAC Utility is installed.

BR-Pricing-4: Build DRG grouping input record

The DRG grouping input record is used in both the call to the health care-acquired condition (HCAC) utility and to the DRG grouper. The list of fields included in the DRG grouper input record is shown in Table 7.7.2.

Table 7.7.2

Input to DRG Grouper
CCN
First date of service
Last date of service
Patient discharge status
Source of admission (optional)
Type of admission (optional)
Beneficiary gender
Beneficiary age
Age in days – admission (if age is zero, populate the age in days).
Admit diagnosis code (optional)
Principal diagnosis code
All diagnosis codes submitted on the claim
Present-on-admission indicators for each diagnosis code
All surgical procedure codes submitted on the claim
ICD version indicator

BR-Pricing-5: Call health care-acquired condition (HCAC) utility

A call must be made to a mainframe-based third party software application called the health care-acquired condition (HCAC) utility. This utility is also referred to as the hospital-acquired condition (HAC) utility. This utility will identify any diagnosis codes and/or diagnosis code / surgical procedure code combinations that are classified as health care-acquired conditions (HCACs). The utility also returns a separate list of diagnosis and surgical procedure codes removing those codes identified as HCACs for pricing.

BR-Pricing-6: Add calls to DRG grouping software

Two calls to a mainframe-based third party software application written by 3M Health Information Systems called the APR-DRG grouper will need to be added. This software will assign the APR-DRG code. The first call should be performed using all the diagnosis and surgical procedure codes on the claim. The DRG assigned from this call is generally referred to as the pre-HCAC DRG (because it reflects the DRG assignment before the HCAC Utility is run. During this first call the HCAC diagnoses and/or procedures are identified). The second call should include only those diagnosis and surgical procedure codes that are not defined as HCACs. The 3M HCAC utility returns a list of all the diagnosis and surgical procedure codes on the claims except those defined as HCACs, making the removal of HCAC codes very easy. The DRG returned from the second call to the DRG grouper is generally referred to as the post-HCAC DRG (because it reflects the DRG assignment after running the HCAC Utility).

On ninety-nine percent (99 percent) or more of the claims, there will be no diagnosis or surgical procedure codes defined as HCACs. So it would be worthwhile to compare the list of codes sent to the HCAC utility against the list of codes returned from the HCAC utility. If the two lists are the same, then it is safe to assume the pre-HCAC and post-HCAC DRGs will be the same, and the second call to the DRG grouper can be skipped. Even in cases where there are codes defined as HCACs, the pre-HCAC and post-HCAC DRG codes may still turn out to be the same. But the only way to know for sure is to perform a second call to the DRG grouper.

In cases where the pre-HCAC DRG and the post-HCAC DRG differ, CA-MMIS will price the claim using the post-HCAC DRG; however, two calls to the HCAC Utility will still be needed to obtain the post-HCAC DRG.

If the DRG grouping software sends back a non-zero return code, an MMIS edit should post to the claim. The APR-DRG grouping software has about a dozen return codes, and those codes need to be mapped to specific MMIS edits. (Table 7.6.5)

BR-Pricing-7: Add logic to perform DRG pricing

New DRG pricing logic will need to be added to CA-MMIS, as shown in Table 7.7.3. This logic is also shown in the flow chart included in Section 7.14 of this document and in the separate DRG calculator spreadsheet. Please refer to the separate DRG Calculator spreadsheet to understand the formulae below. The "line" column in Table 7.7.3 refers to the line in the DRG Pricing Calculator.

Table 7.7.3

DRG Pricing Logic

Line	Information	Comments	Formula (Column E) from DRG Calculator	Expressed Formula
6	**CLAIM-SPECIFIC INFORMATION USED IN PRICING**			
7	Total charges	From claim (UB-04 Form Locator 47)		
8	Hospital-specific cost-to-charge ratio	From provider master file		
9	Length of stay	From claim		
10	Patient discharge status = 02, 05, 65 or 66? (transfer)	Check claim against system list		
11	Patient age (in years)	From claim		
12	Other health coverage	No change from current calculation		
13	Patient share of cost	No change from current calculation		
14	Is discharge status equal to 30?	From claim		
15	Designated NICU facility	From provider master file		
16	APR-DRG	From APR-DRG grouping software		
17	**APR-DRG INFORMATION USED IN PRICING**			
18	APR-DRG description	Look up from DRG Reference file. The description itself does not affect pricing.		
19	Casemix relative weight--unadjusted	Look up from DRG Reference file		
20	Service adjustor - hospital with designated NICU	Look up from DRG Reference file		
21	Service adjustor - all other hospitals	Look up from DRG Reference file		

Table 7.7.3 DRG Pricing Logic				
Line	**Information**	**Comments**	**Formula (Column E) from DRG Calculator**	**Expressed Formula**
22	Age adjustor	Look up from DRG Reference file		
23	Payment relative weight	21 is the cut-off age for pediatric age adjustor	=+IF(E11<21,IF(E15="Yes",(E19*E20*E22),(E19*E21*E22)),IF(E15="Yes",(E19*E20),(E19*E21)))	If the patient age <21 years old and if this is a designated NICU facility, then Casemix relative weight—unadjusted * designated NICU policy adjustor * age adjustor, else Casemix relative weight—unadjusted *Service adjustor all other hospitals * age adjustor, else Service adjustor all other hospitals * age adjustor, else
24	Average length of stay for this APR-DRG	Look up from DRG Reference file		
25	**PAYMENT POLICY PARAMETERS USED IN DRG PRICING**			
26	DRG base price	From provider master file		
27	Cost outlier threshold 1	From parameter table		
28	Cost outlier threshold 2	From parameter table		
29	Marginal cost percentage_1	From parameter table		
30	Marginal cost percentage_2	From parameter table		
31	Casemix adjustment factor	From parameter table		
32	Interim claim threshold	From parameter table		
33	Interim per diem amount	From parameter table		
34	**DETERMINE WHETHER THIS IS AN INTERIM CLAIM**			
35	Is discharge status equal to 30?		=E14	Continue if the discharge status (E14) is equal to 30 signaling this as an interim claim; otherwise skip to line 39.
36	Is length of stay > interim claim threshold?		=IF(E35="Yes", IF(E9>E32,"Yes","No"),"N/A")	Is the claim's length of stay (LOS) (E9) greater than the interim claim threshold of 29 (E32) days?
37	Skip to E65 for final interim claim payment amount		=IF(E36="Yes", ROUND((E33*E9),2),0)	If the response to line 36 is yes, then calculate the interim claims price by multiplying the DRG per diem amount (E33) by the LOS (E9). This is the payment amount for an interim claim. Go to E65.
38	**DETERMINE THE DRG BASE PAYMENT**			

Table 7.7.3 DRG Pricing Logic				
Line	**Information**	**Comments**	**Formula (Column E) from DRG Calculator**	**Expressed Formula**
39	DRG base payment for this claim		=E26*E23*E31	Calculate the DRG base price by multiplying DRG base price (E26) * Payment relative weight (E23) * Casemix adjustment factor (E31)
40	**DETERMINE TRANSFER-ADJUSTED BASE PRICE, IF APPLICABLE**			
41	Is a transfer adjustment potentially applicable?		=+E10	Does the patient discharge status (E10) indicate that this is a transfer claim? If no, skip to line 45; otherwise, proceed with calculating transfer-adjusted base price.
42	Calculated transfer payment adjustment		=IF(E41="Yes",ROUND((E39/E24)*(E9+1),2),"N/A")	Divide DRG Base Payment (E39) by ALOS (E24) for the DRG then multiply by the LOS for this claim plus 1 day. Round to 2 places.
43	Is transfer payment adjustment < allowed amount so far?		=IF(E42="N/A","N/A",IF(E42<E39,"Yes","No"))	Is the transfer payment (E42) less than the DRG base payment (E39)?
44	Allowed amount after transfer adjustment		=+IF(E43="Yes",E42,E39)	If E43 is yes and the transfer payment (E42) is less than the DRG base payment (E39), then pay the transfer adjustment (E42); otherwise pay the DRG Base Price (E39). Go to E45.
45	**DETERMINE COST OUTLIER PAYMENT, IF APPLICABLE**			
46	Estimated cost of this case		=E7*E8	Calculate the estimated cost of this case by multiplying covered charges (E7) by the hospital-specific Cost-to-charge (CCR) ratio (E8). Use this to determine if an outlier payment qualifies.
47	Is estimated cost > allowed amount		=IF(E46>E44,"Loss","Gain")	If the estimated cost of this case (E46) is greater than the allowed amount (E44) (the transfer adjustment is calculated and either the base price or transfer adjusted base price is used), then label this a loss and go to (E48) to calculate High-side outlier payment. If the estimated cost of this case (E47) is less than the allowed amount (E45) then label a “gain” and go to E54 to calculate low side outlier payment.
48	***Calculate High-Side Outlier Payment When Payment Is Much Lower than Cost***			
49	Estimated loss on this case		=IF(E47="Loss",(E46-E44),"N/A")	If E47 is a “loss”, then calculate the loss by subtracting the allowed amount (E44) from the estimated cost of this case (E46).
50	Is loss > outlier threshold lower limit		=IF((E47="Loss"),IF((E49>E27),"Yes”, “No"),"N/A")	Is the loss (E49) greater than Cost outlier threshold 1 (E27)? If no, skip to (E53). else N/A.

Table 7.7.3 DRG Pricing Logic				
Line	**Information**	**Comments**	**Formula (Column E) from DRG Calculator**	**Expressed Formula**
51	DRG cost outlier payment increase 1		=IF(E50="Yes",IF(E49<E28,(E49-E27)*MC_1,(E28-E27)*MC_1),0)	If the loss (E49) is less than the Cost outlier threshold 2 (E28), subtract the loss (E49) by Cost outlier threshold 1 (E27) then multiply by Marginal cost percentage_1 (E29) to get the DRG cost outlier payment increase 1 (E51). If the loss (E49) is more than the Cost outlier threshold 2 (E28), then calculate the difference, between Cost outlier threshold 2 (E28) and Cost outlier threshold 1 (E27) and multiply by the Marginal cost percentage_1 (E29) to get the DRG cost outlier payment increase 1 (E51).
52	DRG cost outlier payment increase 2		=IF(E50="Yes",IF(E49>E28,(E49-E28)*MC_2,0),0)	If the loss (E49) is greater than the Cost outlier threshold 2 (E28), then calculate the difference between loss (E49) and the Cost outlier threshold 2 (E28), then multiply by Marginal cost percentage_2 (E30) to calculate the DRG cost outlier payment increase 2 (E52). Otherwise, no DRG cost outlier payment increase 2 (E52).
53	***Calculate Low Side Outlier Payment When Payment Is Much Greater than Cost***			
54	Estimated gain on this case		=IF(E47="Gain",(E44-E46),"N/A")	If a “gain” is indicate (E47), then calculate the estimated gain by subtracting estimated cost of this case (E46) from the allowed amount (E44). Otherwise, “N/A”.
55	Is gain > outlier threshold		=IF((E47="Gain"),IF((E54>E27),"Yes","No"),"N/A")	Is the “gain” (E54) greater than Cost outlier threshold 1 (E27)? If yes, continue, If no, skip to E57. Else N/A.
56	DRG cost outlier payment decrease		=IF((E47="Gain"),(ROUND(IF(E55="Yes",((E54-E27)*E29),0),2)),0)	If E55 is “yes”, then subtract the Cost outlier threshold 1 (E27) from the “gain” (E54), then multiply by the Marginal cost percentage_1 (E29) to calculate the DRG cost outlier payment decrease (E56). Round to 2 places Otherwise Zero.
57	**CALCULATE ALLOWED AMOUNT AFTER TRANSFER AND OUTLIER ADJUSTMENTS**			

Table 7.7.3

DRG Pricing Logic

Line	Information	Comments	Formula (Column E) from DRG Calculator	Expressed Formula
58	DRG payment so far		=IF(E47="Loss",(E44+E51+E52),(E44-E56))	Calculate the DRG payment so far (E58) including any transfer adjustment and outlier payments by: If E47 is a “loss”, then Allowed amount after transfer adjustment (E44) plus DRG cost outlier payment increase 1 (E51) plus DRG cost outlier payment increase 2 (E52). If E47 is a “gain”, then Allowed amount after transfer adjustment (E44) minus the DRG cost outlier payment decrease 2 (E56).
59	**CALCULATE ALLOWED AMOUNT AND REIMBURSEMENT AMOUNT**			
60	Add-on amount	Look up provider master file. Not used at this time, so value is zero		
61	Allowed amount		E58 + E60	
62	Other health coverage	No change from current CA-MMIS logic in moving from the allowed amount to the reimbursed amount logic.	IF E12 > 0, then E12, else 0	Process the payment from E61 along with any other current logic from the allowed amount to the reimbursed amount logic. Existing policy ensures that payment amount cannot exceed total charges. If allowed amount is greater than charges (E61>E7), then use charges (E7), otherwise, use allowed amount (E61).
63	Patient share of cost		If E13 > 0, then E13, else 0	
64	“Lesser of” calculation		IF E61>E7, then E7, else E61	
65	Payment amount			If interim claim (E35=”yes”), then final interim claim amount (E37) as payment amount. Otherwise, subtract other health coverage (E62) and patient share of cost (E63) from "Lesser of" (E64) to obtain payment amount.

Notes:

1. The DRG pricing calculator spreadsheet shows this same logic, with examples.
2. This table is intended to be helpful with the DRG pricing logic, but it cannot capture all the editing and pricing complexity of the Medicaid claims processing system. In cases of difference, the claims processing system is correct.

BR-Pricing-8: Store DRG pricing values

At the completion of DRG pricing, the values calculated will need to be stored in the CA-MMIS database. All of these values will be stored in the new claim DRG pricing file. Those values are shown in Table 7.7.4.

Table 7.7.4
DRG Pricing Fields Stored with Each Claim

DRG Pricing Fields	Notes	Field Filled for DRG Hospitals (D) or Per Diem Hospitals (P)**
The first set of fields contains the values used in pricing the claim using the post-HCAC DRG.		
CCN		DRG, Per Diem
NPI	Copied from the provider master file	DRG, Per Diem
CIN	Client Index Number	DRG, Per Diem
DRG_Code	Determined by DRG grouper	DRG, Per Diem
DRG_MDC_Code	Determined by DRG grouper	DRG, Per Diem
Prov_DRG_Base_Price	Copied from the provider master file	DRG
DRG_Casemix_Rel_Wt	Copied from DRG pricing file	DRG, Per Diem
DRG_Pymt_Rel_Wt	If the beneficiary age is greater than or equal to the value in the age cutoff parameter, then this field equals (DRG_Casemix_Rel_Wt) * (the DRG service adjustor, either the NICU or "all other" service adjustor). If the beneficiary age is less than the value in the age cutoff parameter, then this field equals (DRG_Casemix_Rel_Wt) * (the DRG service adjustor, either the NICU or "all other" service adjustor) * (DRG age adjustor).	DRG
Casemix_Adjstmnt_Factor	Found in a system parameter	DRG
DRG_Base_Pymt	Equals Prov_DRG_Base_Price * DRG_Pymt_Rel_Wt * Casemix_Adjstmnt_Factor	DRG
DRG_ALOS	Copied from DRG pricing record	DRG, Per Diem
Transfer_Pymt_Amt	Calculated value – in the flowchart this is referred to as "transfer payment"	DRG
Prov_CCR	Copied from the provider master file	DRG
Estimate_Gain_Loss	Calculated value	DRG
Est_Gain_Loss_Ind	"G" or "L"	DRG
DRG_Outlier_Amt	Calculated value	DRG
DRG_Outlier_Ind	Calculated value	DRG
Add_On_Pymt_Amt	Copied from the provider master file	DRG
DRG_Price_Full_Stay	Calculated value	DRG

Table 7.7.4 DRG Pricing Fields Stored with Each Claim		
DRG Pricing Fields	**Notes**	**Field Filled for DRG Hospitals (D) or Per Diem Hospitals (P)****
The second set of fields contains the values generally referred to as the "pre-HCAC" values although in practice they are the values determined using the DRG code with the higher relative weight between the "pre-HCAC" and "post-HCAC" DRGs. Also, extremely few claims will have any HCAC conditions. So the "pre-HCAC" values will equal the "post-HCAC" values on over 99 percent of the inpatient claims.		
Pre_HCAC_DRG_Cd	Determined by DRG grouper	DRG, Per Diem
Pre_HCAC_DRG_Casemix_Rel_Wt	Copied from DRG pricing file	DRG, Per Diem
Pre_HCAC_Pymt_Rel_Wt	If the beneficiary age is greater than or equal to the value in the age cutoff parameter, then this field equals (Pre_HCAC_DRG_Casemix_Rel_Wt) * (the DRG service adjustor, either the NICU or "all other" service adjustor). If the beneficiary age is less than the value in the age cutoff parameter, then this field equals (Pre_HCAC_DRG_Casemix_Rel_Wt) * (the DRG service adjustor, either the NICU or "all other" service adjustor) * (DRG age adjustor).	DRG
Pre_HCAC_Final_Price	Calculated value	DRG
HCAC_Category	Returned by the HCAC utility. There can be multiple categories identified on a single claim, although this will be very rare. Recording the first category identified will be sufficient. Valid values for this field are: 00 = No HCAC assigned 01 = Foreign Object Retained After Surgery 02 = Air Embolism 03 = Blood Incompatibility 04 = Stage III & IV Pressure Ulcers 05 = Falls and Trauma 06 = Catheter Associated Urinary Tract Infection 07 = Vascular Catheter Associated Infection 08 = Surgical Site Infection - CABG 09 = Manifestations of Poor Glycemic Control 10 = DVT/PE after certain orthopedic procedures 11 = Surgical Site Infection - Bariatric Surgery 12 = Surgical Site Infection - Certain Orthopedic procedures 13 = Surgical site infection - Cardiac implantation (CIED) 14 = Iatrogenic pneumothorax w venous catheterization	DRG, Per Diem

Table 7.7.4 DRG Pricing Fields Stored with Each Claim		
DRG Pricing Fields	Notes	Field Filled for DRG Hospitals (D) or Per Diem Hospitals (P)**

Note:

1. ** Reference is to the "inpatient payment method" field that has hospital-specific valid values of D=DRG and P=Per Diem. For the per diem hospitals, the goal is to report clinical information about the stay (e.g., DRG code, DRG casemix relative weight calculated from national data, national average length of stay, HCAC presence) but not pricing information that does not pertain to per diem hospitals (e.g., DRG payment relative weight, DRG base price).

In addition, the DRG pricing indicator will need be stored in the DRG Pricing file instead of the Activity Record. The final claim price will be stored in the Activity Record.

The new pricing method indicator values for DRG pricing should be:

- Standard DRG pricing (value code = 'DST')
- Transfer claim; DRG price reduced (value code = 'TFA')
- Transfer claim; DRG price not reduced (value code = 'TFN')
- Outlier claim, DRG price adjusted for loss (value code = 'OLA')
- Outlier claim, DRG price adjusted for gain (value code = 'OGA')
- Transfer claim, DRG price reduced, outlier loss adjusted (value code ='TLA')
- Transfer claim, DRG price reduced, outlier gain adjusted (value code = 'TGA')
- Transfer claim, DRG price not reduced, outlier loss adjusted (value code = 'TLN')
- Transfer claim, DRG price not reduced, outlier gain adjusted (value code = 'TGN')
- DRG interim claim (value code = 'DIN')
- Rehabilitation claim (value code = 'DRB')
- DRG Admin Level Claim – 'DAD'

The presence of outlier payments will be identified with a separate DRG outlier indicator stored on the new claim DRG pricing file.

BR-Pricing-9: Allow users to view claim DRG pricing fields

DRG pricing file will not be viewable online (Customer Information Control System [CICS]), but the required information can be extracted through ITSD Medi-Cal Information System/Decision Support System (MIS/DSS) or SURS Prospector.

The final claim header price will be stored in the same place as it is stored for all other claims, in the field called CF1-ALLOWABLE-PROC-PAYMT. The DRG pricing indicator will be stored in the DRG Pricing side file.

BR-Pricing-10: Price admin level 2 claims like admin level 1

Level 2 administrative day claims should flow through the same pricing logic as used for administrative day level 1 claims. This is existing logic within CA-MMIS that pays a per diem amount for specific revenue codes and pays additionally for specific ancillary services. Level 2 administrative day claims will be identified by the presence of one or more lines with revenue code 190 or 199. And the per diem rate will be paid to the lines with revenue code 190 or 199. The logic used to pay certain ancillary services will be the same logic currently used for administrative day level 1 claims (claims with revenue code 169).

Administrative day level 2 care is care that is less intensive than acute care, and more intensive than the existing administrative day care, which is referred to in this document as administrative day level 1.

Administrative day level 2 and revenue codes 190 and 199 will be available for payment only to DRG hospitals. Revenue codes 190 and 199 will be added to the provider master file for these providers.

Revenue codes 190 and 199 will require a daily TAR/SAR. Payment will work the same as revenue code 169, such as bundling policies and separately payable ancillary services. Administrative day level 1 and level 2 services will require a separate claim to be billed.

Administrative day level 1 and level 2 per diem rates will reside in the PMF.

The new administrative day level 2 services will be further distinguished by the specific revenue code to identify services provided to pediatric and adult beneficiaries:

- Administrative day level 2 – Subacute Pediatric will be identified by revenue code 0190
- Administrative day Level 2 – Subacute Adult will be identified by revenue code 0199

Note: A new edit will be added to deny any claim that falls into more than one pricing category, where the pricing categories are: DRG, administrative day level 1, administrative day level 2, and rehabilitation (Table 7.6.2).

BR-Pricing-11: Add new rehabilitation service pricing logic

A new per diem payment method will be implemented for payment of rehabilitation claims. Rehabilitation claims will be identified by the presence of revenue codes 118, 128, 138, and/or 158 on one or more service lines on the claim. Rehabilitation claims will be paid a per diem. The per diem will be multiplied by the number of units for each of

these five revenue codes on the claim to get the total claim price. All other lines on the claim should price at zero.

Rehabilitation rates will reside in the Provider Master File. (See BR-Adj-Edit-7: TAR edits within claims adjudication and Section 5.5 for details on rehab rates)

Note: A new edit will be added to deny any claim that falls into more than one pricing category, where the pricing categories are: DRG, administrative day level 1, administrative day level 2, and rehabilitation (Table 7.6.2).

7.8 Processing Final Claim after Interim Claims

BR-Final-Clm-1: Voiding interim claims

A particularly complicated piece of the DRG pricing process is handling long hospital stays in which interim claims are billed followed by a final claim. For these types of stays the interim claims will be paid a per diem rate, which is intended to help the providers with their cash flow. Then when the beneficiary is finally discharged, a final claim will be submitted that will be priced under the normal DRG method. To perform DRG pricing on the final claim, providers will be expected to bill all the information for the full stay on the final claim. The final claim will contain the full length of stay, all diagnosis and surgical procedure codes, and all the charges for the stay.

The final bill will also need to include all the accommodation codes from each interim claim to be voided, just like if they had submitted a final bill and only a final bill. This will ensure processing the final bill as a complete final bill and that the claim used for repricing includes all the accommodation codes and ancillary services as applicable.

The basic business requirement in this scenario is to ensure that the overall payment for this stay is the full DRG payment. When a provider submits a claim with type of bill 111 (Admit-through-discharge claim), then all previous interim claims will be voided and the final claim will be reimbursed using DRG pricing methodology.

The final claim has to be suspended until all the voids have been entered. The interim per diem rate will be on the DRG System Parameter Table. Interim claims will meet the minimum number of days which will also be on the DRG System Parameter table as the “interim claim threshold”. Only interim claims with length of stay greater than 29 days will be payable.

7.9 Reporting DRG Pricing Information

No changes to the Claim Activity Record are anticipated. As a result, no changes are anticipated for the CMS 64 report or the MARS 145 and 154 reports.

BR-Rptng-1: Remittance advice

The paper and electronic (X12N 835) remittance advice sent to Medi-Cal hospitals will be modified to include DRG payment information. The remittance advice will display the following additional information:

- Four-digit APR-DRG code
- APR-DRG relative weight (only on the X12N 835)
- New remittance advice document (RAD) codes:
  - 0453 - APR-DRG claim zero priced due to paid claim in history
  - 0455 - a health care-acquired condition caused change in the APR-DRG code assigned to the claim
  - 0457 - payment based on assigned APR-DRG code
  - 0458 – APR-DRG interim claim payment
  - 0564 – voided APR-DRG interim claim

BR-Rptng-2: Standard DRG pricing reports

Standard DRG pricing reports will need to be built to help UMD, Safety Net Financing, and other organizations monitor payments made for inpatient acute care services.

No reports will be generated through CA-MMIS. Reports will be generated from a data warehouse. See Section 6.6 of the Policy Design Document (May 1, 2012)[137] (subsequently updated on September 26, 2013) for a suggested list of DRG reports.

New mainframe reports associated with modifications to the DRG data, however, will be added. Examples are: DRG Reference File audit report and batch update/reject reports, DRG System Parameter Table report, and DRG Provider data batch update/reject report, and transaction audit trail report.

BR-Rptng-3: Data warehouse extracts

Some of the new claim DRG pricing fields, new reference DRG pricing fields, and new provider pricing fields will need to be extracted and made available for data warehouses. The claim fields that should be made available to data warehouses are:

Table 7.9.1 Additional Claim Fields for Data Warehouse
DRG Pricing Fields
DRG_Code
DRG_Code_Desc
DRG_MDC_Code
DRG_MDC_Code_Desc
Prov_DRG_Base_Price
DRG_Casemix_Rel_Wt
DRG_Svc_Adjstr_All_Others
DRG_Svc_Adjstr_Desig_NICU
DRG_Age_Adjstr
DRG_Pymt_Rel_Wt
Casemix_Adjstmnt_Factor
DRG_Base_Pymt
Estimate_Gain_Loss
Est_Gain_Loss_Ind
DRG_Outlier_Amt
Add_On_Pymt_Amt
Claim final price
DRG pricing method indicator
Pre_HCAC_DRG_Cd
Pre_HCAC_DRG_Casemix_Rel_Wt
Pre_HCAC_Pymt_Rel_Wt
Pre_HCAC_Final_Price
HCAC_Category
Fields Submitted on Claims
Diag_Cd_1
POA_Cd_1
Diag_Cd_2
POA_Cd_2
Diag_Cd_3
POA_Cd_3
Diag_Cd_4

Table 7.9.1 Additional Claim Fields for Data Warehouse
POA_Cd_4
Diag_Cd_5
POA_Cd_5
Diag_Cd_6
POA_Cd_6
Diag_Cd_7
POA_Cd_7
Diag_Cd_8
POA_Cd_8
Diag_Cd_9
POA_Cd_9
Diag_Cd_10
POA_Cd_10
Diag_Cd_11
POA_Cd_11
Diag_Cd_12
POA_Cd_12
Diag_Cd_13
POA_Cd_13
Diag_Cd_14
POA_Cd_14
Diag_Cd_15
POA_Cd_15
Diag_Cd_16
POA_Cd_16
Diag_Cd_17
POA_Cd_17
Diag_Cd_18
POA_Cd_18
Diag_Cd_19
POA_Cd_19
Diag_Cd_20
POA_Cd_20
Diag_Cd_21
POA_Cd_21
Diag_Cd_22
POA_Cd_22
Diag_Cd_23
POA_Cd_23

Table 7.9.1 Additional Claim Fields for Data Warehouse
Diag_Cd_24
POA_Cd_24
Diag_Cd_25
POA_Cd_25
Surg_Proc_Cd_1
Surg_Proc_Dt_1
Surg_Proc_Cd_2
Surg_Proc_Dt_2
Surg_Proc_Cd_3
Surg_Proc_Dt_3
Surg_Proc_Cd_4
Surg_Proc_Dt_4
Surg_Proc_Cd_5
Surg_Proc_Dt_5
Surg_Proc_Cd_6
Surg_Proc_Dt_6
Surg_Proc_Cd_7
Surg_Proc_Dt_7
Surg_Proc_Cd_8
Surg_Proc_Dt_8
Surg_Proc_Cd_9
Surg_Proc_Dt_9
Surg_Proc_Cd_10
Surg_Proc_Dt_10
Surg_Proc_Cd_11
Surg_Proc_Dt_11
Surg_Proc_Cd_12
Surg_Proc_Dt_12
Surg_Proc_Cd_13
Surg_Proc_Dt_13
Surg_Proc_Cd_14
Surg_Proc_Dt_14
Surg_Proc_Cd_15
Surg_Proc_Dt_15
Surg_Proc_Cd_16
Surg_Proc_Dt_16
Surg_Proc_Cd_17
Surg_Proc_Dt_17
Surg_Proc_Cd_18

Table 7.9.1 Additional Claim Fields for Data Warehouse
Surg_Proc_Dt_18
Surg_Proc_Cd_19
Surg_Proc_Dt_19
Surg_Proc_Cd_20
Surg_Proc_Dt_20
Surg_Proc_Cd_21
Surg_Proc_Dt_21
Surg_Proc_Cd_22
Surg_Proc_Dt_22
Surg_Proc_Cd_23
Surg_Proc_Dt_23
Surg_Proc_Cd_24
Surg_Proc_Dt_24
Surg_Proc_Cd_25
Surg_Proc_Dt_25

The reference DRG pricing fields that should be made available to data warehouses are:

Table 7.9.2 Reference DRG Pricing Fields Available to Data Warehouses
DRG_Code
Eff_Begin_Dt
Eff_End_Dt
DRG_Description
DRG_ALOS
DRG_Casemix_Rel_Wt
DRG_Svc_Adjstr_All_Others
DRG_Svc_Adjstr_Desig_NICU
DRG_Age_Adjstr
Mcaid_Care_Categ_Adult
Mcaid_Care_Categ_Child

The provider-specific DRG pricing fields that should be made available to data warehouses are:

Table 7.9.3 Provider DRG Pricing Fields Available to Data Warehouses
Eff_Begin_Dt
Eff_End_Dt
Cost-to-charge ratio
Provider DRG base price
Per-claim add-on payment
Designated NICU indicator
Administrative day level 1 per diem rate
Administrative day level 2 per diem rate (adult)
Administrative day level 2 per diem rate (pediatric)
Rehabilitation per diem rates

7.10 Database Changes

BR-DB-1: Add a reference DRG pricing file

A new Reference DRG pricing file needs to be created. This file will be updated once a year and about 1,300 rows will be added each year. The file needs to be accessible to the inpatient pricing logic within the adjudication process. The file should also be viewable and updateable online in CA-MMIS. Fields in this file are:

Table 7.10.1
New Reference DRG Pricing File

Column	Format	Description
DRG_Code	PIC X(05)	Unique key is DRG_Code and Begin_Dt
Eff_Begin_Dt	Standard CA-MMIS date format	Unique key is DRG_Code and Begin_Dt
Eff_End_Dt	Standard CA-MMIS date format	
DRG_Description	PIC X(100)	
DRG_ALOS	PIC 9(03)V9(02)	Average length of stay
DRG_Casemix_Rel_Wt	PIC 9(03)V9(04)	Relative weight

Table 7.10.1 New Reference DRG Pricing File		
Column	**Format**	**Description**
DRG_Svc_Adjstr_All_Others	PIC 9(03)V9(02)	Relative weight adjustor based on the type of service. Also known as the "policy adjustor". Applicable to all providers except those operating a designated NICU (defined by DHCS as a NICU certified by the California Children's Services program for neonatal surgery. See Table 7.10.2 below for the 'designated NICU indicator' field and values on the PMF).
DRG_Svc_Adjstr_Desig_NICU	PIC 9(03)V9(02)	Relative weight adjustor based on the type of service. Also known as the "policy adjustor". Applicable to providers operating a designated NICU (defined by DHCS as a NICU certified by the California Children's Services program for neonatal surgery. See Table 7.10.2 below for the 'designated NICU indicator' field and values on the PMF).
DRG_Age_Adjstr	PIC 9(03)V9(02)	Relative weight adjustor based on the beneficiary age. Only beneficiaries younger than the age threshold get the age adjustor applied.
Mcaid_Care_Categ_Adult	PIC X(50)	A categorization of DRGs applicable for claims where the beneficiary is an adult
Mcaid_Care_Categ_Child	PIC X(50)	A categorization of DRGs applicable for claims where the beneficiary is a child
DRG_On_Review_Ind	PIC X(01)	DRG-specific indicator that may be used by DHCS Audits & Investigations for post-payment ad-hoc reporting. No editing occurs with this field at this time. Note. This field allows DHCS to build editing logic in the future. For example, this functionality may be used by DHCS to suspend a claim for review prior to payment based on the DRG indicator.
Last_Updt_User_ID	Standard CA-MMIS format	
Last_Updt_Date_Time	Standard CA-MMIS format	

BR-DB-2: Provider master file

The following provider-specific fields need to exist in the provider master file to support APR-DRG pricing. These fields may already exist within the provider master file. If they do, no changes are needed. If they do not, then they will need to be added either to an existing file or to a new file. These fields are all date sensitive. Each needs to be "bracketed" with begin and end effective dates.

Table 7.10.2 Provider Specific Fields Supporting DRG Pricing		
Column	**Format**	**Description**
Cost-to-charge ratio	PIC 9(1)V9(05)	This value is calculated by the Audits and Investigations division. It is the same thing as the interim rate currently loaded for non-contract hospitals.
Inpatient payment method	PIC X(1)	Valid values will be “P” for per diem pricing and “D” for DRG pricing. Other values may also be needed to identify other pricing methods. For most providers of type 016 and 060, this value will be “D” for dates after the cut-over to DRG pricing. However, the value will be “P” for non-DRG hospitals such as designated public hospitals.
DRG base price	PIC 9(09)V9(02)	Provider-specific value used in DRG pricing
Per-claim add-on payment	PIC 9(09)V9(02)	Provider-specific payment amount added to the DRG payment for claims priced under the DRG method.
Designated NICU indicator	PIC X(1)	Value must be “Y” or “N”. This field is on the provider master file and is used in determining the service adjustor value used to increase payment to hospitals identified with a “Y” indicator value. Note: “Designated NICU” hospital is defined by DHCS as a NICU certified by the California Children’s Services program for neonatal surgery.
Administrative day level 1 per diem	Numeric, dollar amount	Values will be hospital-specific and may vary among hospitals. Value will be stored by provider / revenue code combination in the provider master file as done today. This is the current administrative days per diem
Administrative day level 2 per diem	Numeric, dollar amount	Values will be hospital-specific and may vary among hospitals. Value will be stored by provider / revenue code combination in the provider master file as done today for the administrative day level 1 per diem. Note: The new administrative days level 2 services will be further distinguished by the specific revenue code: administrative day level 2 – Subacute Pediatric (0190) and administrative day level 2 – Subacute Adult (0199).
Rehabilitation per diem	Numeric, dollar amount	Values will be hospital-specific and may vary among hospitals. Value will be stored by provider / revenue code combination in the provider master file similar to how per diems are stored today. (See BR-Adj-Edit-7: TAR edits within claims adjudication and Section 5.5 for details on rehab rates)

BR-DB-3: Claims entry side file

A new file will be needed to capture claim data submitted by providers that is not currently captured or used in CA-MMIS. This data will likely be captured in a process very similar to the one built to capture data under the EDI 5010 project. However, for the DRG project, these additional fields will need to be captured on both electronic and paper claims. Also, the fields will only be needed on hospital inpatient claims.

Fields in this new file are shown in Table 7.10.3.

Table 7.10.3

Additional Submitted Claim Fields Needed for DRG Pricing

Column	Format	Description / Notes
CCN	PIC X(13)	Primary key to this file
Diag_Cd_1	PIC X(07)	
POA_Cd_1	PIC X(01)	
Diag_Cd_2	PIC X(07)	
POA_Cd_2	PIC X(01)	
Diag_Cd_3	PIC X(07)	
POA_Cd_3	PIC X(01)	
Diag_Cd_4	PIC X(07)	
POA_Cd_4	PIC X(01)	
Diag_Cd_5	PIC X(07)	
POA_Cd_5	PIC X(01)	
Diag_Cd_6	PIC X(07)	
POA_Cd_6	PIC X(01)	
Diag_Cd_7	PIC X(07)	
POA_Cd_7	PIC X(01)	
Diag_Cd_8	PIC X(07)	
POA_Cd_8	PIC X(01)	
Diag_Cd_9	PIC X(07)	
POA_Cd_9	PIC X(01)	
Diag_Cd_10	PIC X(07)	
POA_Cd_10	PIC X(01)	
Diag_Cd_11	PIC X(07)	
POA_Cd_11	PIC X(01)	
Diag_Cd_12	PIC X(07)	
POA_Cd_12	PIC X(01)	
Diag_Cd_13	PIC X(07)	
POA_Cd_13	PIC X(01)	
Diag_Cd_14	PIC X(07)	
POA_Cd_14	PIC X(01)	

Table 7.10.3 Additional Submitted Claim Fields Needed for DRG Pricing		
Column	**Format**	**Description / Notes**
Diag_Cd_15	PIC X(07)	
POA_Cd_15	PIC X(01)	
Diag_Cd_16	PIC X(07)	
POA_Cd_16	PIC X(01)	
Diag_Cd_17	PIC X(07)	
POA_Cd_17	PIC X(01)	
Diag_Cd_18	PIC X(07)	
POA_Cd_18	PIC X(01)	
Diag_Cd_19	PIC X(07)	
POA_Cd_19	PIC X(01)	
Diag_Cd_20	PIC X(07)	
POA_Cd_20	PIC X(01)	
Diag_Cd_21	PIC X(07)	
POA_Cd_21	PIC X(01)	
Diag_Cd_22	PIC X(07)	
POA_Cd_22	PIC X(01)	
Diag_Cd_23	PIC X(07)	
POA_Cd_23	PIC X(01)	
Diag_Cd_24	PIC X(07)	
POA_Cd_24	PIC X(01)	
Diag_Cd_25	PIC X(07)	
POA_Cd_25	PIC X(01)	
Surg_Proc_Cd-1	PIC X(07)	
Surg_Proc_Dt-1	Standard CA-MMIS date format	
Surg_Proc_Cd-2	PIC X(07)	
Surg_Proc_Dt-2	Standard CA-MMIS date format	
Surg_Proc_Cd-3	PIC X(07)	
Surg_Proc_Dt-3	Standard CA-MMIS date format	
Surg_Proc_Cd-4	PIC X(07)	
Surg_Proc_Dt-4	Standard CA-MMIS date format	
Surg_Proc_Cd-5	PIC X(07)	
Surg_Proc_Dt-5	Standard CA-MMIS date format	
Surg_Proc_Cd-6	PIC X(07)	
Surg_Proc_Dt-6	Standard CA-MMIS date format	
Surg_Proc_Cd-7	PIC X(07)	
Surg_Proc_Dt-7	Standard CA-MMIS date format	
Surg_Proc_Cd-8	PIC X(07)	
Surg_Proc_Dt-8	Standard CA-MMIS date format	

Table 7.10.3 Additional Submitted Claim Fields Needed for DRG Pricing		
Column	**Format**	**Description / Notes**
Surg_Proc_Cd-9	PIC X(07)	
Surg_Proc_Dt-9	Standard CA-MMIS date format	
Surg_Proc_Cd-10	PIC X(07)	
Surg_Proc_Dt-10	Standard CA-MMIS date format	
Surg_Proc_Cd-11	PIC X(07)	
Surg_Proc_Dt-11	Standard CA-MMIS date format	
Surg_Proc_Cd-12	PIC X(07)	
Surg_Proc_Dt-12	Standard CA-MMIS date format	
Surg_Proc_Cd-13	PIC X(07)	
Surg_Proc_Dt-13	Standard CA-MMIS date format	
Surg_Proc_Cd-14	PIC X(07)	
Surg_Proc_Dt-14	Standard CA-MMIS date format	
Surg_Proc_Cd-15	PIC X(07)	
Surg_Proc_Dt-15	Standard CA-MMIS date format	
Surg_Proc_Cd-16	PIC X(07)	
Surg_Proc_Dt-16	Standard CA-MMIS date format	
Surg_Proc_Cd-17	PIC X(07)	
Surg_Proc_Dt-17	Standard CA-MMIS date format	
Surg_Proc_Cd-18	PIC X(07)	
Surg_Proc_Dt-18	Standard CA-MMIS date format	
Surg_Proc_Cd-19	PIC X(07)	
Surg_Proc_Dt-19	Standard CA-MMIS date format	
Surg_Proc_Cd-20	PIC X(07)	
Surg_Proc_Dt-20	Standard CA-MMIS date format	
Surg_Proc_Cd-21	PIC X(07)	
Surg_Proc_Dt-21	Standard CA-MMIS date format	
Surg_Proc_Cd-22	PIC X(07)	
Surg_Proc_Dt-22	Standard CA-MMIS date format	
Surg_Proc_Cd-23	PIC X(07)	
Surg_Proc_Dt-23	Standard CA-MMIS date format	
Surg_Proc_Cd-24	PIC X(07)	
Surg_Proc_Dt-24	Standard CA-MMIS date format	
Surg_Proc_Cd-25	PIC X(07)	
Surg_Proc_Dt-25	Standard CA-MMIS date format	

This data must be easily accessible to the inpatient claims pricing process performed within claims adjudication using CCN as the primary key. Once a claim has been paid, the record for that claim can be moved to a historical file that is less easily accessible. However, the claim adjustment process must be able to retrieve these fields when making a new copy of a claim. In addition, the fields will need to be accessible for extracts to data warehouses and accessible for standard claim audits.

These fields need to be captured on all inpatient claims, whether submitted electronically (837I) or on paper (UB-04).

Note: On paper claims, some of these fields have fewer instances.

In addition, DRG payment would depend on a single admit-through-discharge claim. The single DRG claim should include accurate data on all of the fields from incoming inpatient claims that are needed for pricing or editing claims using the new DRG pricing logic. This applies to the additional data in Table 7.10.3 as well as claims data currently captured by CA-MMIS. It is important to make certain that only one claim is used for DRG pricing and that all claims data for the whole stay is used. This will ensure accurate DRG assignment (e.g., using all submitted diagnosis and procedures), enable accuracy in applying the DRG pricing logic (e.g., using all submitted charges in outlier pricing), allow enforcement of branching logic (e.g., using revenue codes that identify claims paid by per diem instead of DRG in the case of rehabilitation, administrative day, interim claims), enable claims editing (e.g., POA for HCACs, type of bill, discharge status, etc.), and avoid duplicate payment for the same stay (e.g., submitting more than one claim for a single stay or split billing).

BR-DB-4: Claim DRG pricing file

Several new fields will need to be added at the claim header level in support of DRG pricing. This document assumes that these fields will be added in a new claims DRG pricing “side file” because as a separate side file it is expected to require less development effort than adding all these fields to the existing claim activity record.

For claims not pricing via DRGs, this record will only be used to support HCAC requirements. So the DRG codes and their associated parameters will be populated, but none of the payment fields will be populated.

Fields in the new claim DRG pricing file are shown in Table 7.10.4.

Table 7.10.4 Fields in New Claim DRG Pricing File			
Column	**Format**	**Description**	**Field Filled for DRG Hospitals (D) or Per Diem Hospitals (P)****
CCN	PIC X(13)	Claim control number – unique key to this file	DRG, Per Diem
NPI	PIC X(10)	National provider identification	DRG, Per Diem
CIN	PIC X(xx)	Client index number	DRG, Per Diem
DRG_Code	PIC X(05)	Diagnosis related grouping code	DRG, Per Diem
DRG_Code_Desc	PIC X(xx)	Diagnosis related grouping code description	DRG, Per Diem
DRG_MDC_Code	PIC X(02)	Major diagnostic category	DRG, Per Diem
DRG_MDC_Code_Desc	PIC X(xx)	Major diagnostic category description	DRG, Per Diem
Prov_DRG_Base_Price	PIC 9(09)V9(02)	Per claim provider specific base price for DRG payments	DRG
DRG_Casemix_Rel_Wt	PIC 9(03)V9(04)	Casemix relative weight – prior to applying policy and age adjustors	DRG, Per Diem
DRG_Pymt_Rel_Wt	PIC 9(03)V9(04)	Relative weight actually used in pricing – equals casemix relative weight times policy adjustor and times age adjustor if beneficiary is a child	DRG
Casemix_Adjstmnt_Factor	PIC 9(01)V9(03)	A payment multiplier applied to all non-interim claims paid via DRG method.	DRG
DRG_Base_Pymt	PIC 9(09)V9(02)	Provider base price times DRG payment relative weight	DRG
DRG_ALOS	PIC 9(03)V9(02)	Average length of stay	DRG, Per Diem
Transfer_Pymt_Amt	PIC 9(09)V9(02)	Only populated on transfer claims	DRG
Prov_CCR	PIC 9(03)V9(03)	Provider cost to charge ratio	DRG
Estimate_Gain_Loss	PIC 9(09)V9(02)	Estimate of provider's gain or loss	DRG
Est_Gain_Loss_Ind	PIC X(01)	"G" = gain "L" = loss	DRG
DRG_Outlier_Amt	PIC 9(09)V9(02)	Outlier payment amount	DRG
DRG_Outlier_Ind	PIC X(01)	"N" – none "G" – provider gain outlier "L" – provider loss outlier	DRG
DRG_Price_Full_Stay	PIC 9(09)V9(02)	Price before considering partial eligibility	DRG
Add_On_Pymt_Amt	PIC 9(09)V9(02)	Per claim provider-specific add-on payment	DRG

Table 7.10.4 Fields in New Claim DRG Pricing File			
Column	**Format**	**Description**	**Field Filled for DRG Hospitals (D) or Per Diem Hospitals (P)****
Pre_HCAC_DRG_Cd	PIC X(05)	DRG code with higher relative weight. In most cases the “pre-HCAC” and “post-HCAC” DRGs will be the same in which case the value in this field will equal the value in field DRG_Code	DRG, Per Diem
Pre_HCAC_DRG_Case mix_Rel_Wt	PIC 9(03)V9(04)	Casemix relative weight for the DRG code with higher relative weight. In most cases the “pre-HCAC” and “post-HCAC” DRGs will be the same in which case the value in this field will equal the value in field DRG_Casemix_Rel_Wt.	DRG, Per Diem
Pre_HCAC_Pymt_Rel_ Wt	PIC 9(03)V9(04)	Payment relative weight for the DRG code with higher relative weight. This value equals the Pre_HCAC_DRG_Cd’s casemix relative weight times policy adjustor and times age adjustor if beneficiary is a child. In most cases the “pre-HCAC” and “post-HCAC” DRGs will be the same in which case the value in this field will equal the value in field DRG_Pymt_Rel_Wt.	DRG
Pre_HCAC_Final_Price	PIC 9(09)V9(02)	Price determined using the pre-HCAC DRG code and all its associated parameters. In most cases the “pre-HCAC” and “post-HCAC” DRGs will be the same in which case the value in this field will equal the value in field CF1-ALLOWABLE-PROC-PAYMT.	DRG

Table 7.10.4

Fields in New Claim DRG Pricing File

Column	Format	Description	Field Filled for DRG Hospitals (D) or Per Diem Hospitals (P)**
HCAC_Category	PIC X(03)	Value returned from HCAC utility. Currently the value is two characters in length, but a 3 character field is being recommended in CA-MMIS in case the width of this field changes over time. Additional categories may be added in the future by CMS. More than one HCAC category can be assigned to a single claim because the HCAC categories are assigned to individual diagnosis codes. But claims with more than one category will be extremely rare. It will be acceptable to store the first HCAC category found on the claim – that is the one from the diagnosis code closest to the principal diagnosis code. Valid values for this field are: 00 = No HCAC assigned 01 = Foreign Object Retained After Surgery 02 = Air Embolism 03 = Blood Incompatibility 04 = Stage III & IV Pressure Ulcers 05 = Falls and Trauma 06 = Catheter Associated Urinary Tract Infection 07 = Vascular Catheter Associated Infection 08 = Surgical Site Infection - CABG 09 = Manifestations of Poor Glycemic Control 10 = DVT/PE after certain orthopedic procedures 11 = Surgical Site Infection - Bariatric Surgery 12 = Surgical Site Infection - Certain Orthopedic procedures 13 = Surgical site infection - Cardiac implantation (CIED) 14 = Iatrogenic pneumothorax w venous catheterization	DRG, Per Diem

Note:

1. ** Reference is to the "inpatient payment method" field that has hospital-specific valid values of D=DRG and P=Per Diem. For the per diem hospitals, the goal is to report clinical information about the stay (e.g., DRG code, DRG casemix relative weight calculated from national data, national average length of stay, HCAC presence) but not pricing information that does not pertain to per diem hospitals (e.g., DRG payment relative weight, DRG base price).

Records in this file will be added during the daily adjudication process. The DRGs will be assigned to claims prior to pricing. Then claims will move through the pricing logic. During the pricing process, the “allowed amount” is calculated using the DRG pricing logic. The DRG final price or the “allowed amount” will be stored in the CF1-ALLOWABLE-PROC-PAYMT field on the Activity Record. Any applicable deductions will be applied on the "allowed amount" for determining the payment amount. The DRG pricing indicator and other DRG pricing fields will be stored in the new DRG Pricing side file instead of using existing fields in the Activity Record. The DRG pricing indicator will be used to store values indicating how the claim priced (such as straight DRG, DRG with a transfer reduction, or DRG with an outlier payment).

This topic is also discussed in requirement BR-Pricing-8.

The new claim DRG pricing side file will not need to be accessible when building adjustment claims. This is because the final claim price and the DRG pricing method indicator will exist on the claim activity record and not on the side file. When creating a new copy of a claim during the adjustment process, none of the fields in this file will need to be copied from the original claim. All of these fields will get recalculated when the new adjustment claim goes through adjudication. Whether or not a record will need to be created in this side file for credits/voids of inpatient claims will need to be determined during the technical design phase of this implementation.

Records in this file will need to be accessible as long as the claim is processing through adjudication and payment. Once payment is complete, the data will need to be accessible for standard data warehouse extracts. The data will also need to be accessible for standard claim audits.

7.11 Data Configuration

BR-Config-1: Initial implementation data configuration

The following tasks will need to be performed in each test environment and in production just prior to implementing DRG pricing.

- Enter all the system parameters and system lists
- Load initial values for all DRG codes into the DRG pricing reference file
- Identify hospitals of type 016 and 060 that are active in 2013 but are not in the DRG simulation dataset.
- Load and/or confirm cost-to-charge ratios for all providers getting paid via DRGs. In the past, cost-to-charge ratios were only updated in CA-MMIS if they changed by more than 3 percentage points. With DRG pricing, cost-to-charge ratios are more critical to the pricing calculations and will need to be updated annually, no matter how small values change year-to-year.
- Load the inpatient claim payment method on all providers that bill inpatient claims
- Load the following values on all providers that will be paid via DRGs:
  - DRG base price
  - Designated NICU indicator
  - Per-claim add-on payment (expected to be zero for all providers)
- End date the rate on some of the provider procedure code rate records. Some procedure codes will continue to be billable separately on outpatient claims for inpatient hospital stays. So some records will remain in effect. But the list of procedure codes separately payable will be smaller thus requiring many records to be end dated.
- Add new provider procedure records. Under the Selective Provider Contracting Program, only certain contract providers were allowed to bill separately on outpatient claims for specific services provided in an inpatient setting. Also, the list of billable services could differ from one contract hospital to another. Under DRG pricing, the list of separately billable services is smaller and applies only to all hospitals being paid via DRGs. In addition, the list of separately billable services is the same for every provider. So the appropriate records will need to be added to all hospitals and an analysis will need to be performed to ensure this list of procedures exists on all contract providers.

  Table 7.11.1 lists the services that may be billed separately by hospitals paid by DRG (providers with inpatient payment method value = “D” for DRG pricing).

  Note: Data configuration for separately billable services is subject to change prior to testing and move to production.

Table 7.11.1 Separately Payable Services, Supplies and Device Codes	
Code	**Description**
Bone Marrow	
38204	Management of recipient hematopoietic progenitor cell donor search and cell acquisition
38204	Unrelated bone marrow donor
Blood Factors	
J7180	Blood factor XIII
J7183/J7184/Q2041	Blood factor Von Willebrand –injection
J7185	Blood factor VIII
J7186	Blood factor VIII / Von Willebrand
J7187	Blood factor Von Willebrand
J7189	Blood factor VIIa
J7190	Blood factor VIII
J7192	Blood factor VIII
J7193	Blood factor IX
J7194	Blood factor IX
J7195	Blood factor IX
J7197	Blood factor antithrombin III
J7198	Blood factor antiinhibitor
Note: 1. This list of services that may be billed separately on an outpatient claim applies only to hospitals paid by DRG (providers with inpatient payment method value = “D” for DRG pricing).	

7.12 Data Retention

BR-Retention-1: Data retention and disaster recovery

The Claims Entry Side File and the DRG Pricing Side File will be stored for 10 years. Existing CA-MMIS data retention requirements will apply to any new data and files created as a result of SDN 12005, Diagnosis Related Group Pricing Methodology for Inpatient Claims.

The Disaster Recovery requirements will be updated to include the new data, files and transactions created as a result of SDN 12005, Diagnosis Related Group Pricing Methodology for Inpatient Claims.

7.13 Other Adjustments

BR-Other Adjust-1: Share of cost and other healthcare coverage

Share-of-cost (SOC) and other healthcare coverage (OHC) payments will continue to be applied under the DRG payment method as was previously done. No changes are anticipated to the CA-MMIS logic that calculates the reimbursement amounts.

BR-Other Adjust-2: Timely filing

Timely filing rules will continue to be applied under the DRG payment method as was previously done. Some exceptions will be made such as for extended stays and final bills submitted with interim claims.

BR-Other Adjust-3: Various adjustments identified

Payment adjustments for the day of discharge or death will not be applied to claims paid by DRG. The DRG payment method makes the necessary adjustments when assigning the DRG to the claim or through the various payment calculations (e.g., transfers and outliers).

The day of discharge or death payment adjustments will continue to be applied to hospitals paid based on a per diem reimbursement methodology. No reductions will be made on the DRG claims. All inpatient reductions should be turned off including CCS/GHPP/and Healthy Family. DRG claims will not be subject to payment reductions managed through the following tables:

- Table 2074: Claim Reduction Inclusions and Reduction Percent**.** This table is implemented through SDN S08005, (TEN PERCENT PROVIDER PAYMENT REDUCTION – BUDGET TRAILER BILL OF 2008), effective for claims with Dates of Service beginning July 1, 2008.

- Table 2075: Claim Reduction Exemptions and Reduction Percent**.** This table was implemented through SDN S02075, (2004 PAYMENT ADJUSTMENTS – 5 PERCENT REDUCTION), effective for claims with Dates of Service beginning January 1, 2004

BR-Other Adjust-4: Lesser of paid or billed

The lesser of paid or billed logic will continue to be applied under the DRG payment method as was previously done so that final payment does not exceed total charges on the claim.

7.14 Payment Policy Flowchart

The following flowchart describes the DRG pricing logic in detail.

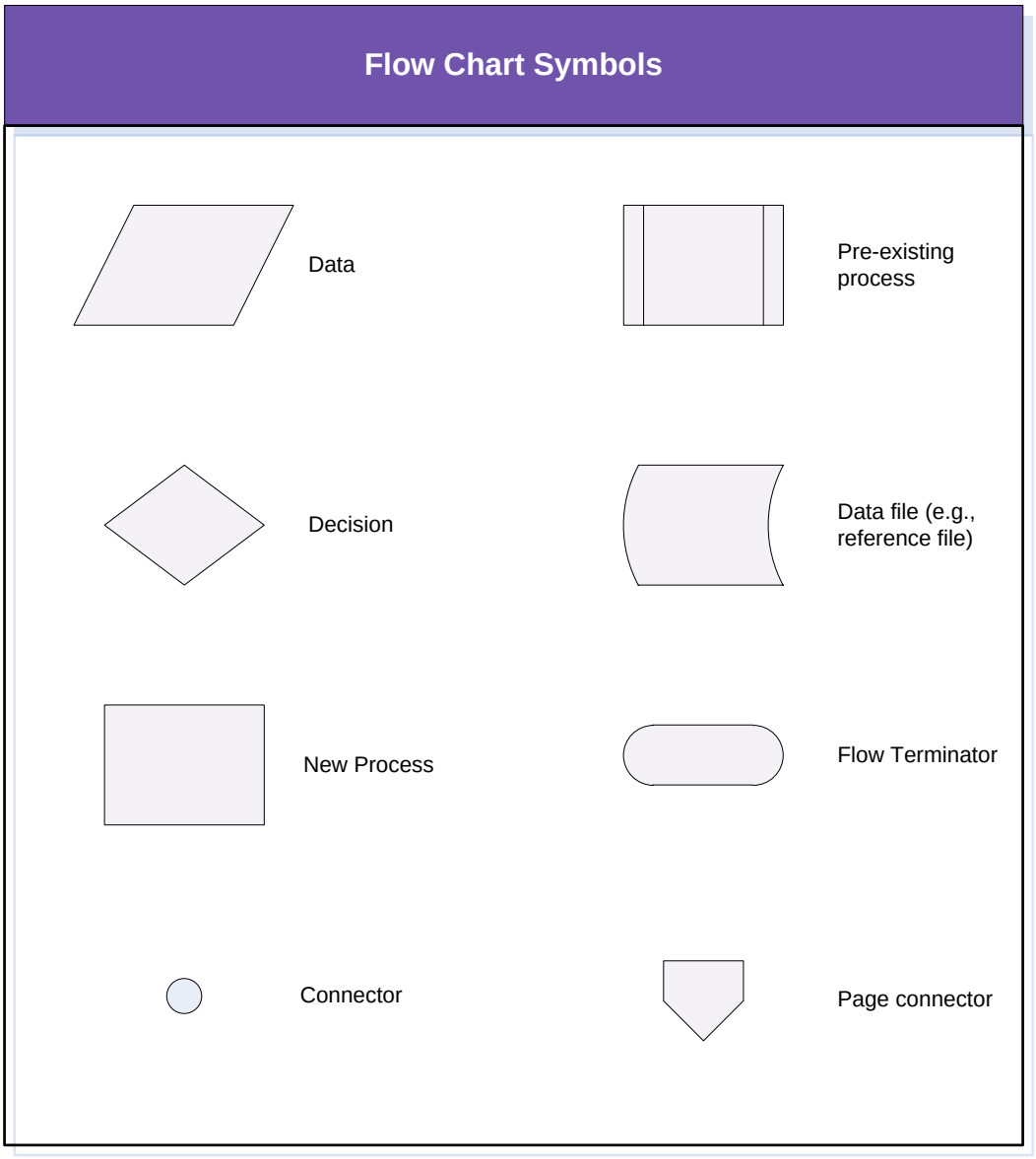
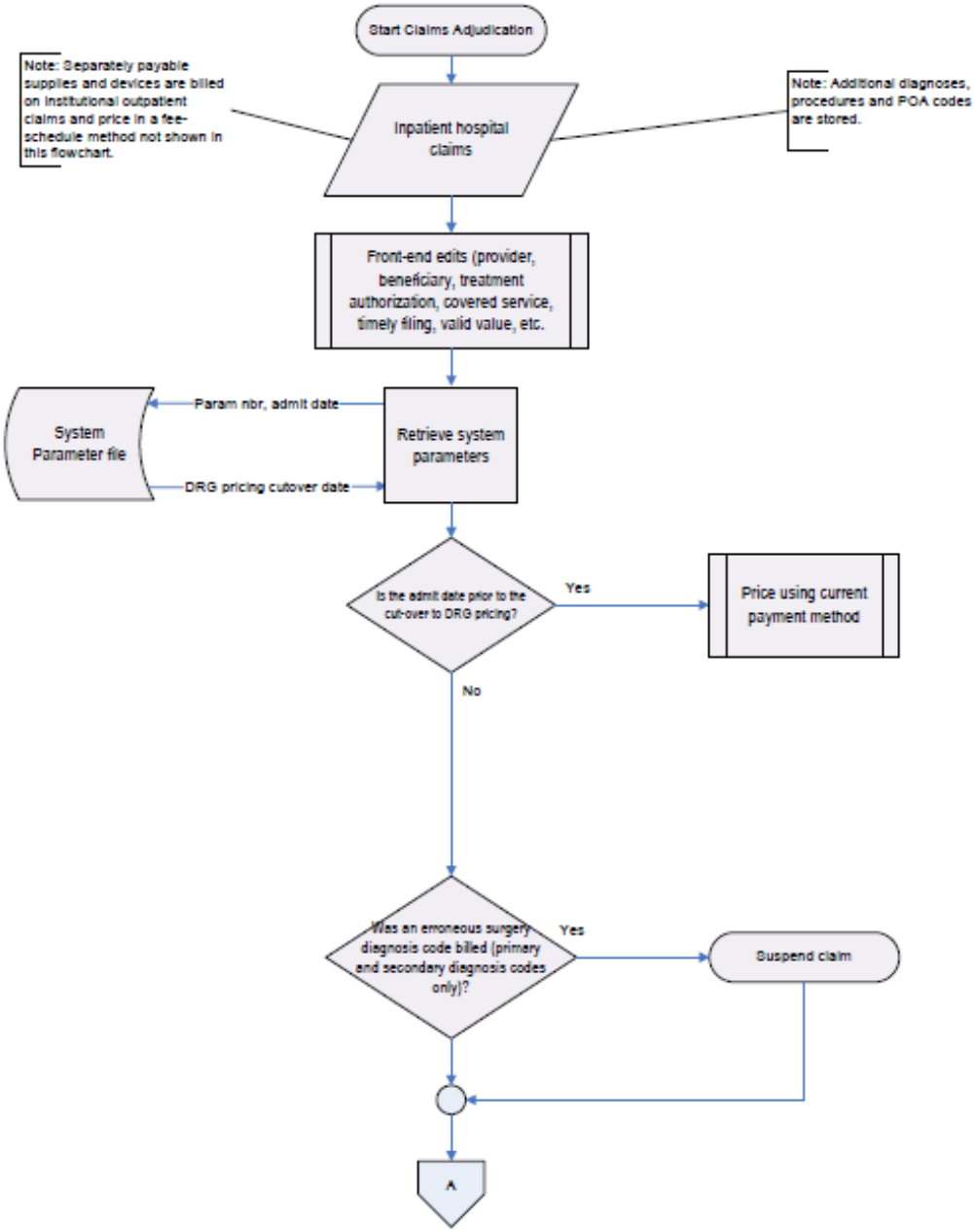
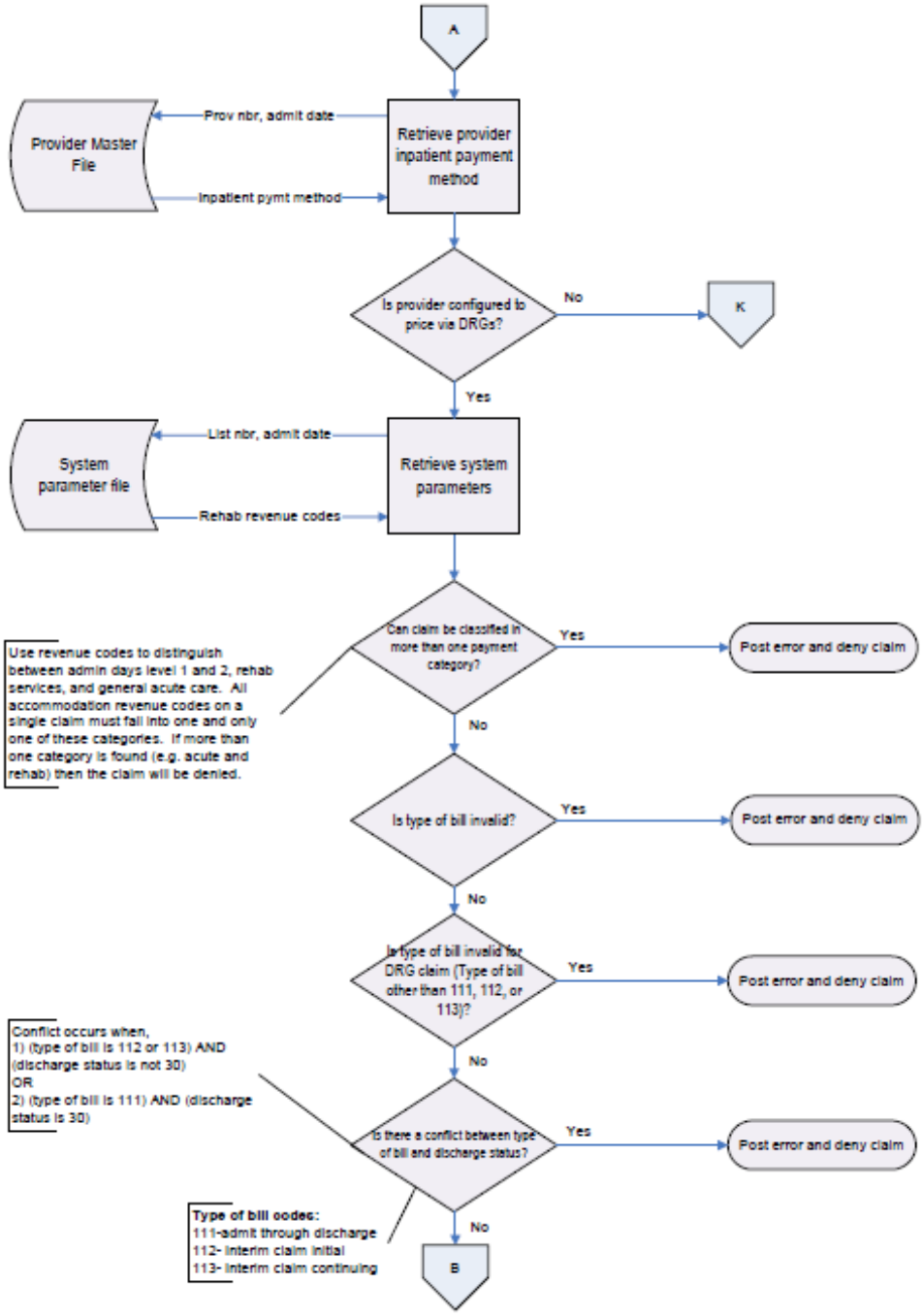
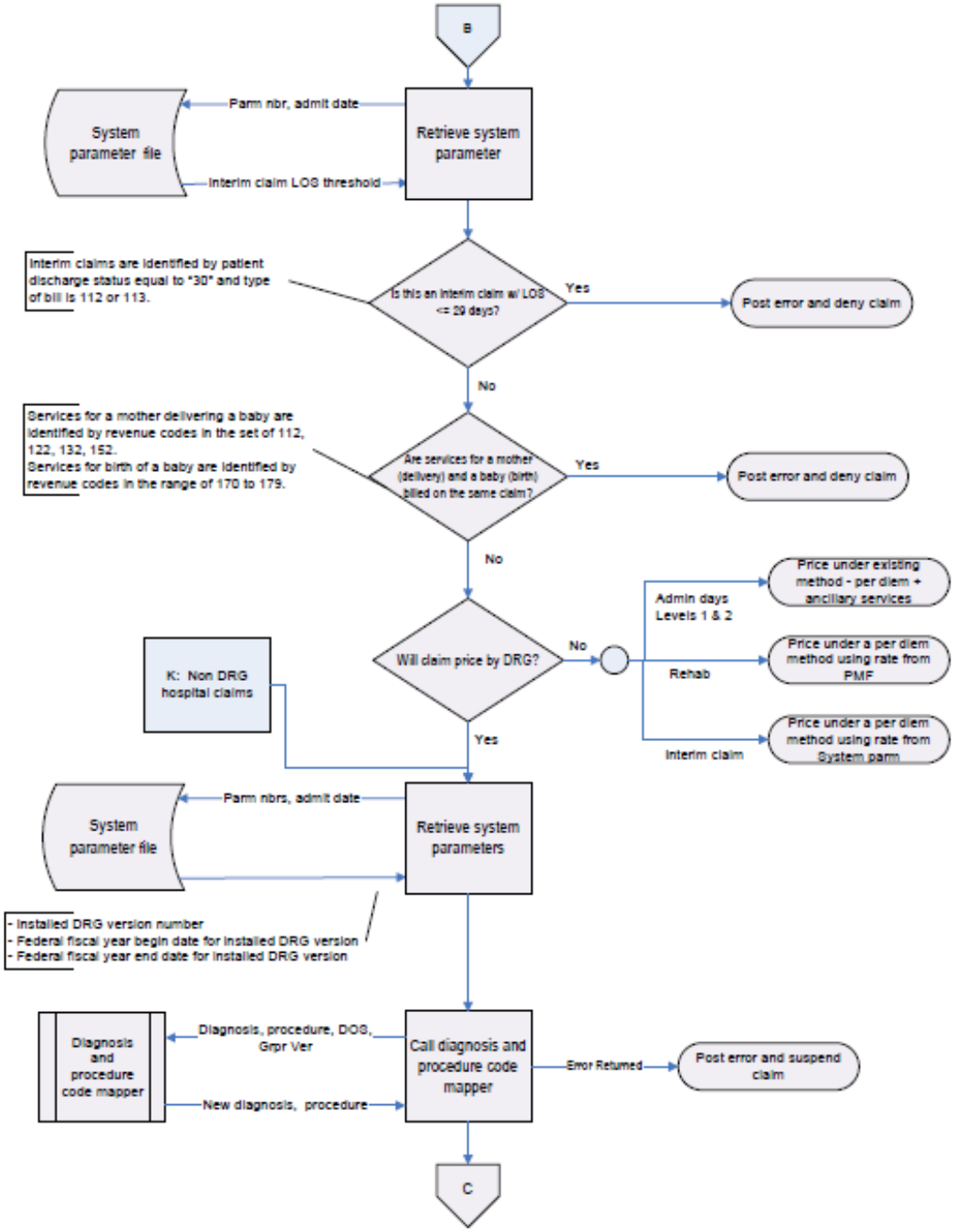
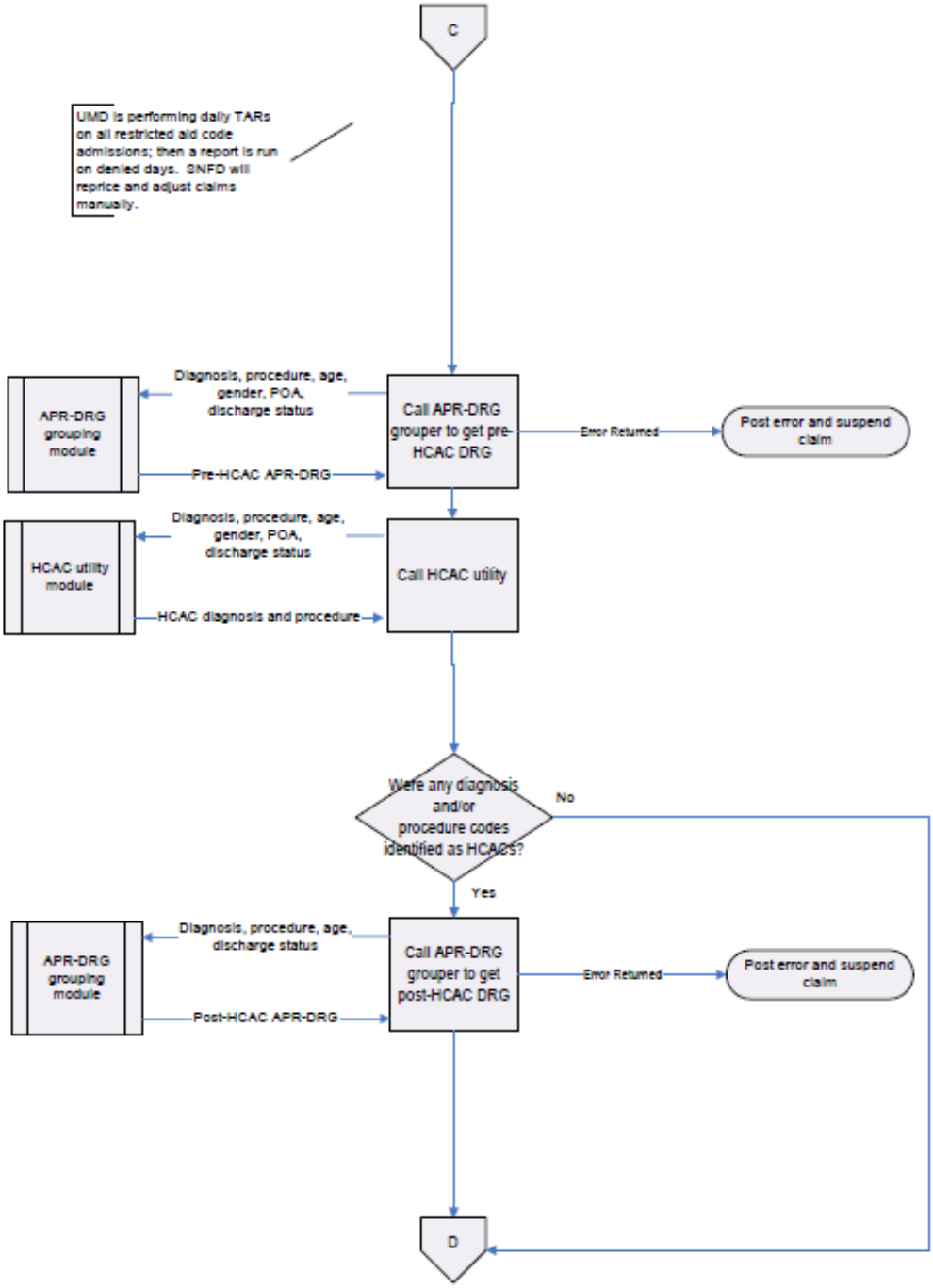


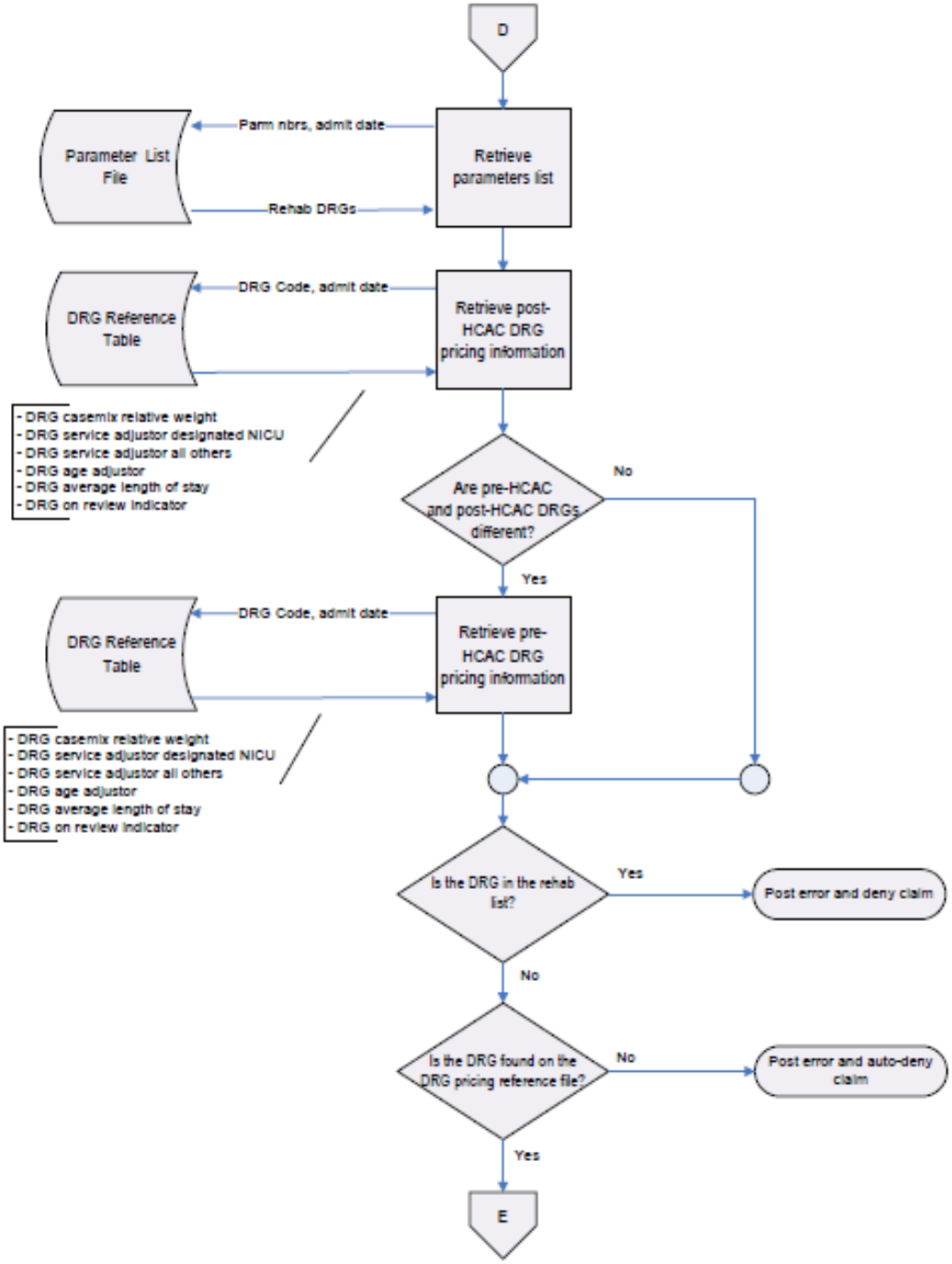
Chart 7.14.1 DRG Pricing Flowchart

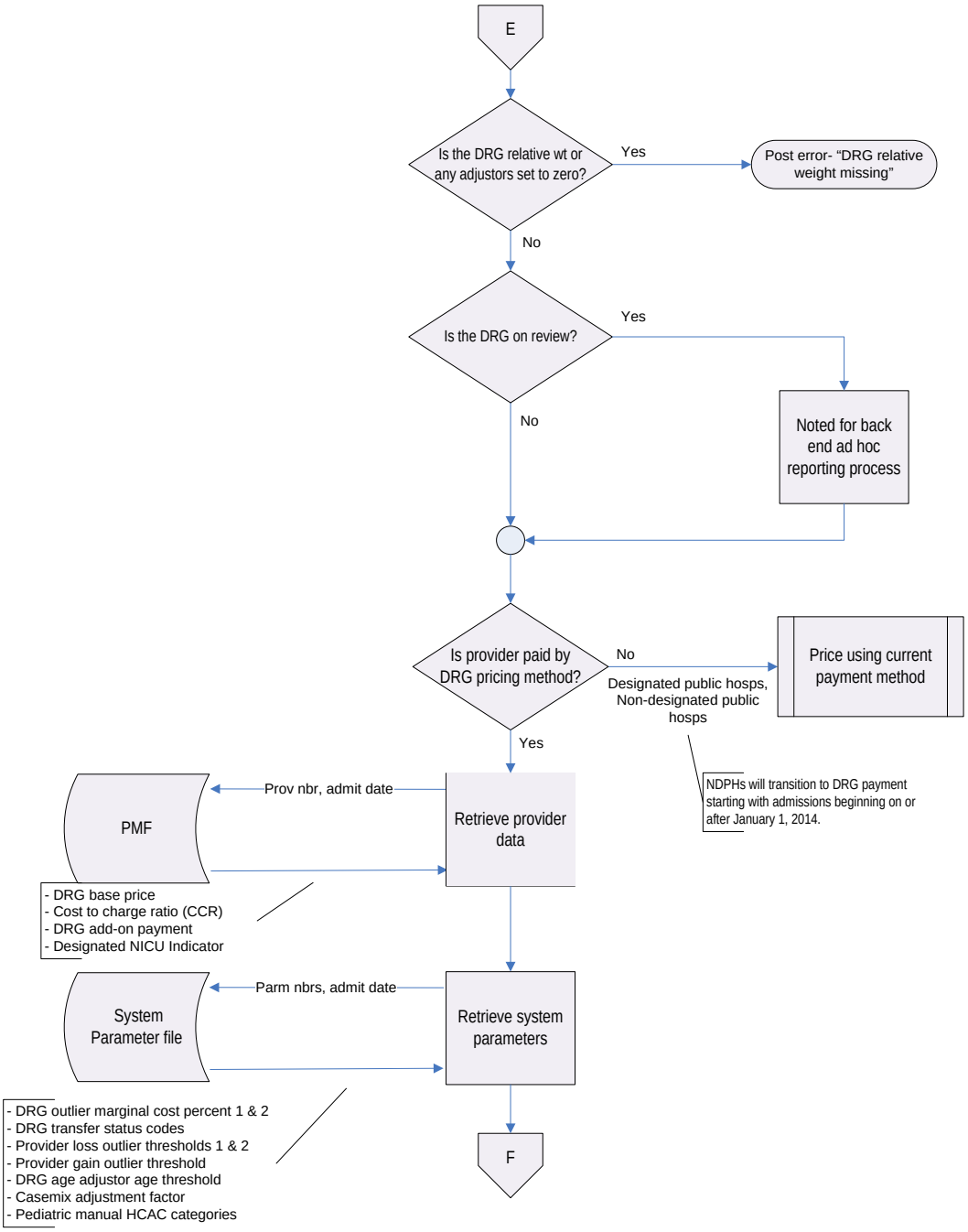


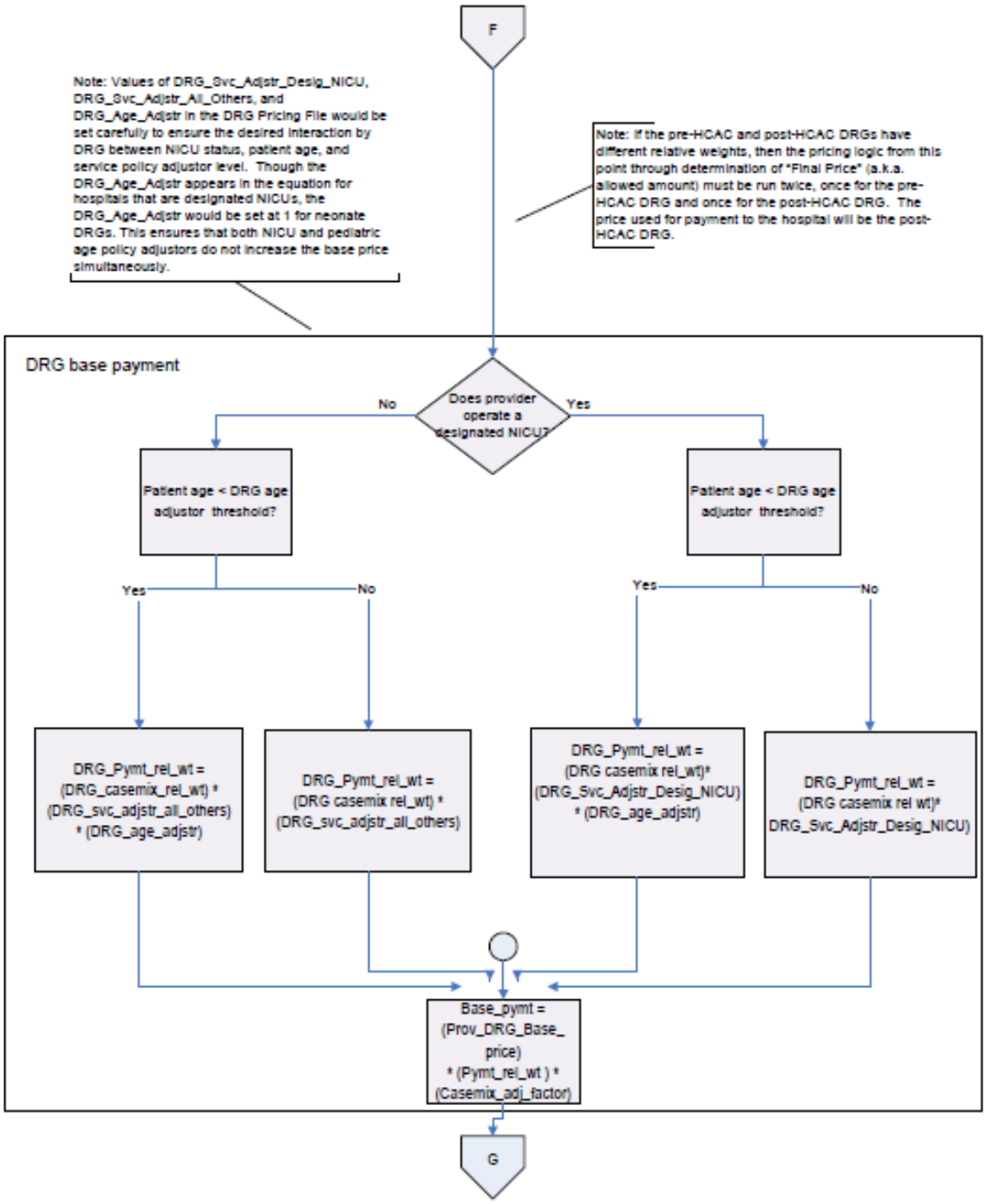

A
Provider Master File
Prov nbr, admit date
Inpatient pymt method
Retrieve provider inpatient payment method
Is provider configured to price via DRGs?
No
K
Yes
System parameter file
List nbr, admit date
Rehab revenue codes
Retrieve system parameters
Can claim be classified in more than one payment category?
Yes
Post error and deny claim
Use revenue codes to distinguish between admin days level 1 and 2, rehab services, and general acute care. All accommodation revenue codes on a single claim must fall into one and only one of these categories. If more than one category is found (e.g. acute and rehab) then the claim will be denied.
No
Is type of bill invalid?
Yes
Post error and deny claim
No
Is type of bill invalid for DRG claim (Type of bill other than 111, 112, or 113)?
Yes
Post error and deny claim
No
Conflict occurs when,
1) (type of bill is 112 or 113) AND (discharge status is not 30)
OR
2) (type of bill is 111) AND (discharge status is 30)
Is there a conflict between type of bill and discharge status?
Yes
Post error and deny claim
Type of bill codes:
111-admit through discharge
112- interim claim initial
113- interim claim continuing
No
B

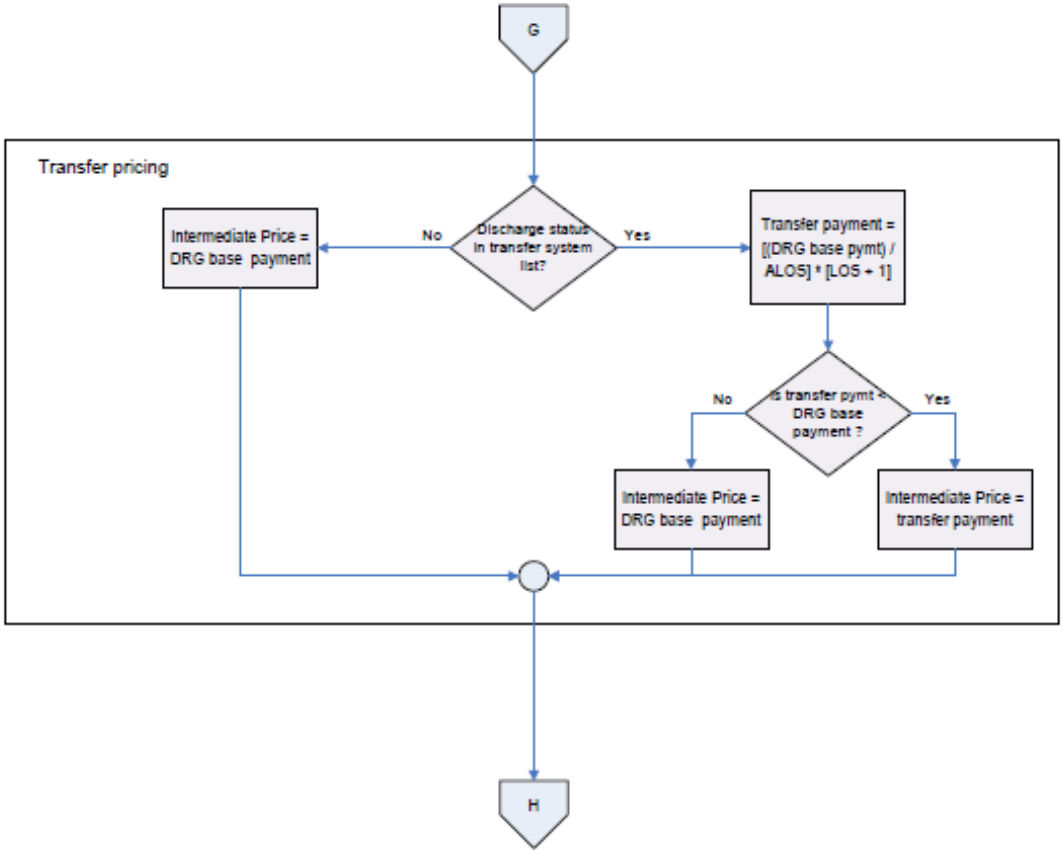

B
System parameter file
Parm nbr, admit date
Interim claim LOS threshold
Retrieve system parameter
Interim claims are identified by patient discharge status equal to "30" and type of bill is 112 or 113.
Is this an interim claim w/ LOS <= 29 days?
Yes
Post error and deny claim
No
Services for a mother delivering a baby are identified by revenue codes in the set of 112, 122, 132, 152.
Services for birth of a baby are identified by revenue codes in the range of 170 to 179.
Are services for a mother (delivery) and a baby (birth) billed on the same claim?
Yes
Post error and deny claim
No
Will claim price by DRG?
No
Admin days Levels 1 & 2
Price under existing method - per diem + ancillary services
Rehab
Price under a per diem method using rate from PMF
Interim claim
Price under a per diem method using rate from System parm
K: Non DRG hospital claims
Yes
System parameter file
Parm nbrs, admit date
Retrieve system parameters
- Installed DRG version number
- Federal fiscal year begin date for installed DRG version
- Federal fiscal year end date for installed DRG version
Diagnosis and procedure code mapper
Diagnosis, procedure, DOB, Grpr Ver
New diagnosis, procedure
Call diagnosis and procedure code mapper
Error Returned
Post error and suspend claim
C

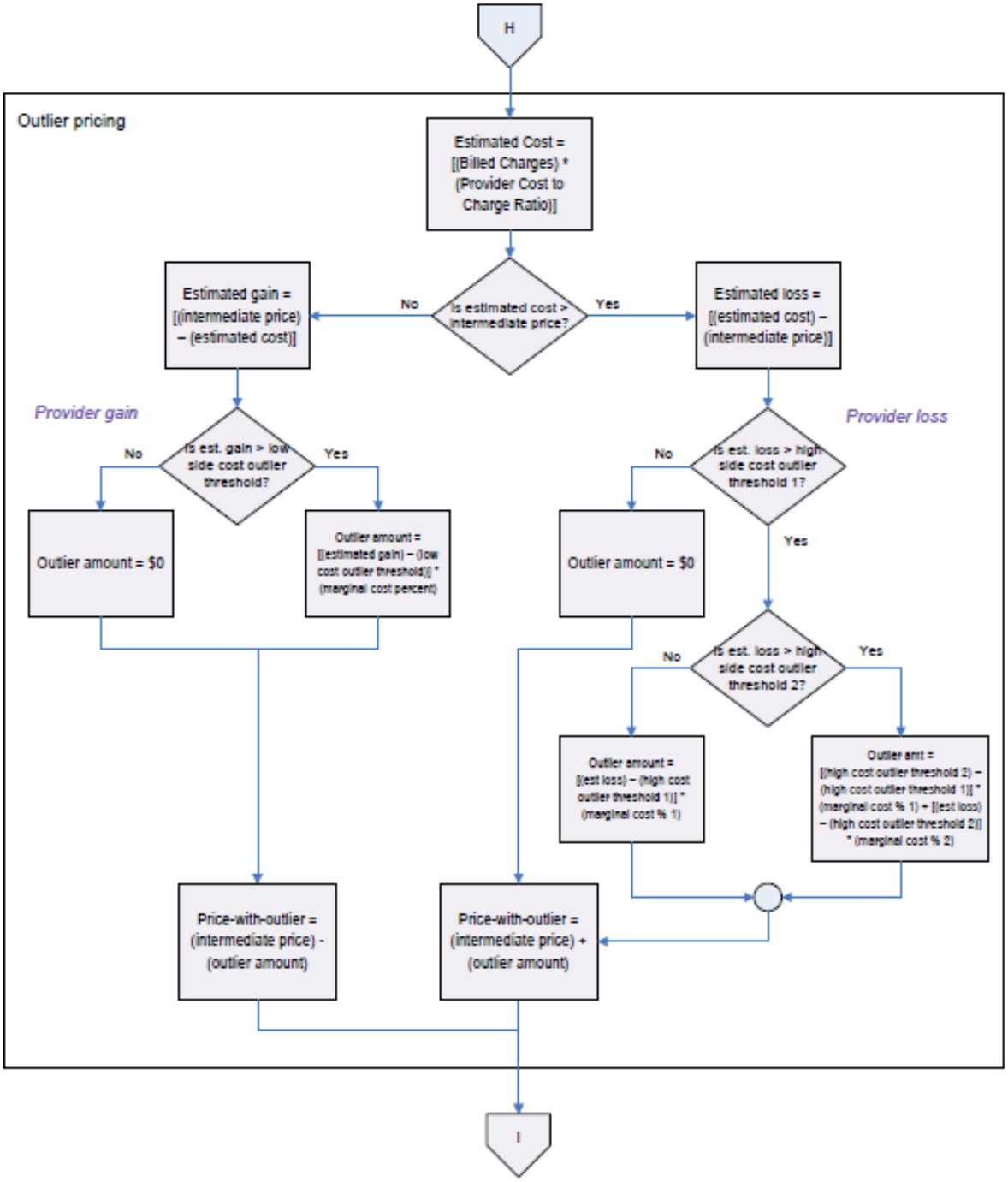

C
UMD is performing daily TARs on all restricted aid code admissions; then a report is run on denied days. SNFD will reprice and adjust claims manually.
APR-DRG grouping module
Diagnosis, procedure, age, gender, POA, discharge status
Pre-HCAC APR-DRG
Call APR-DRG grouper to get pre-HCAC DRG
Error Returned
Post error and suspend claim
HCAC utility module
Diagnosis, procedure, age, gender, POA, discharge status
HCAC diagnosis and procedure
Call HCAC utility
Were any diagnosis and/or procedure codes identified as HCACs?
No
Yes
APR-DRG grouping module
Diagnosis, procedure, age, discharge status
Post-HCAC APR-DRG
Call APR-DRG grouper to get post-HCAC DRG
Error Returned
Post error and suspend claim
D

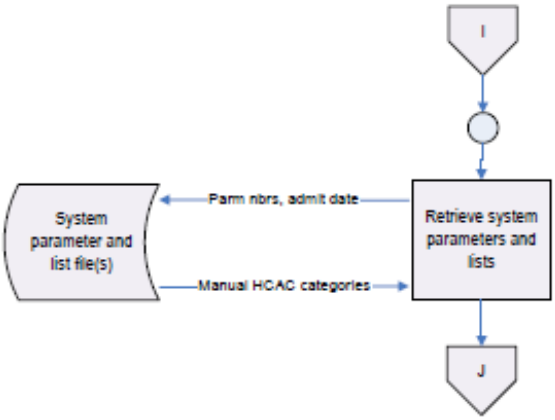

D
Parameter List File
Parm nbrs, admit date
Rehab DRGs
Retrieve parameters list
DRG Reference Table
DRG Code, admit date
Retrieve post-HCAC DRG pricing information
- DRG casemix relative weight
- DRG service adjustor designated NICU
- DRG service adjustor all others
- DRG age adjustor
- DRG average length of stay
- DRG on review indicator
Are pre-HCAC and post-HCAC DRGs different?
No
Yes
DRG Reference Table
DRG Code, admit date
Retrieve pre-HCAC DRG pricing information
- DRG casemix relative weight
- DRG service adjustor designated NICU
- DRG service adjustor all others
- DRG age adjustor
- DRG average length of stay
- DRG on review indicator
Is the DRG in the rehab list?
Yes
Post error and deny claim
No
Is the DRG found on the DRG pricing reference file?
No
Post error and auto-deny claim
Yes
E

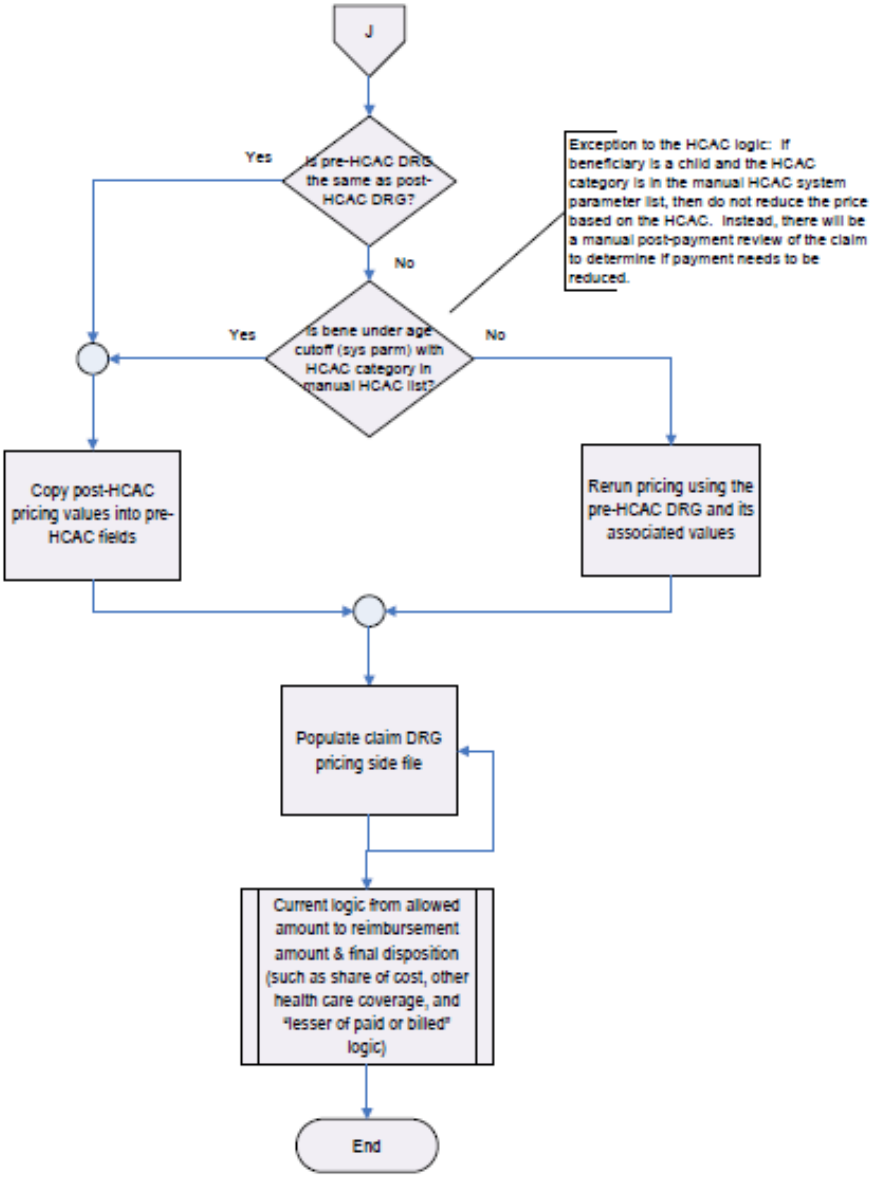

E
Is the DRG relative wt or any adjustors set to zero?
Yes
Post error- "DRG relative weight missing"
No
Is the DRG on review?
Yes
Noted for back end ad hoc reporting process
No
Is provider paid by DRG pricing method?
No
Designated public hosps, Non-designated public hosps
Price using current payment method
Yes
NDPHs will transition to DRG payment starting with admissions beginning on or after January 1, 2014.
PMF
Prov nbr, admit date
Retrieve provider data
- DRG base price
- Cost to charge ratio (CCR)
- DRG add-on payment
- Designated NICU Indicator
System Parameter file
Parm nbrs, admit date
Retrieve system parameters
- DRG outlier marginal cost percent 1 & 2
- DRG transfer status codes
- Provider loss outlier thresholds 1 & 2
- Provider gain outlier threshold
- DRG age adjustor age threshold
- Casemix adjustment factor
- Pediatric manual HCAC categories
F


F
Note: Values of DRG_Svc_Adjstr_Desig_NICU, DRG_Svc_Adjstr_All_Others, and DRG_Age_Adjstr in the DRG Pricing File would be set carefully to ensure the desired interaction by DRG between NICU status, patient age, and service policy adjustor level. Though the DRG_Age_Adjstr appears in the equation for hospitals that are designated NICUs, the DRG_Age_Adjstr would be set at 1 for neonate DRGs. This ensures that both NICU and pediatric age policy adjustors do not increase the base price simultaneously.
Note: If the pre-HCAC and post-HCAC DRGs have different relative weights, then the pricing logic from this point through determination of "Final Price" (a.k.a. allowed amount) must be run twice, once for the pre-HCAC DRG and once for the post-HCAC DRG. The price used for payment to the hospital will be the post-HCAC DRG.
DRG base payment
Does provider operate a designated NICU?
No
Yes
Patient age < DRG age adjustor threshold?
Patient age < DRG age adjustor threshold?
Yes
No
Yes
No
DRG_Pymt_rel_wt = (DRG_casemix_rel_wt) * (DRG_svc_adjstr_all_others) * (DRG_age_adjstr)
DRG_Pymt_rel_wt = (DRG casemix rel_wt) * (DRG_svc_adjstr_all_others)
DRG_Pymt_rel_wt = (DRG casemix rel_wt)* (DRG_Svc_Adjstr_Desig_NICU) * (DRG_age_adjstr)
DRG_Pymt_rel_wt = (DRG casemix rel wt)* DRG_Svc_Adjstr_Desig_NICU)
Base_pymt = (Prov_DRG_Base_ price) * (Pymt_rel_wt) * (Casemix_adj_factor)
G


G
Transfer pricing
Discharge status in transfer system list?
No
Yes
Intermediate Price = DRG base payment
Transfer payment = [(DRG base pymt) / ALOS] * [LOS + 1]
Is transfer pymt < DRG base payment ?
No
Yes
Intermediate Price = DRG base payment
Intermediate Price = transfer payment
H


H
Outlier pricing
Estimated Cost = [(Billed Charges) * (Provider Cost to Charge Ratio)]
Is estimated cost > intermediate price?
No
Yes
Estimated gain = [(intermediate price) – (estimated cost)]
Estimated loss = [(estimated cost) – (intermediate price)]
Provider gain
Provider loss
Is est. gain > low side cost outlier threshold?
No
Yes
Outlier amount = $0
Outlier amount = [(estimated gain) – ((low cost outlier threshold)) * (marginal cost percent)
Is est. loss > high side cost outlier threshold 1?
No
Yes
Outlier amount = $0
Is est. loss > high side cost outlier threshold 2?
No
Yes
Outlier amount = [(est loss) – (high cost outlier threshold 1)] * (marginal cost % 1)
Outlier amt = [(high cost outlier threshold 2) – (high cost outlier threshold 1)] * (marginal cost % 1) + [(est loss) – (high cost outlier threshold 2)] * (marginal cost % 2)
Price-with-outlier = (intermediate price) - (outlier amount)
Price-with-outlier = (intermediate price) + (outlier amount)
I


I
System parameter and list file(s)
Parm nbrs, admit date
Retrieve system parameters and lists
Manual HCAC categories
J


J
Is pre-HCAC DRG the same as post-HCAC DRG?
Yes
No
Exception to the HCAC logic: If beneficiary is a child and the HCAC category is in the manual HCAC system parameter list, then do not reduce the price based on the HCAC. Instead, there will be a manual post-payment review of the claim to determine if payment needs to be reduced.
Is bene under age cutoff (sys parm) with HCAC category in manual HCAC list?
Yes
No
Copy post-HCAC pricing values into pre-HCAC fields
Rerun pricing using the pre-HCAC DRG and its associated values
Populate claim DRG pricing side file
Current logic from allowed amount to reimbursement amount & final disposition (such as share of cost, other health care coverage, and "lesser of paid or billed" logic)
End

Appendices

Appendix A
APR-DRGs and Medicaid Care Categories

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Appendix A

APR DRGs and Medicaid Care Categories

Count	APR DRG	APR DRG Description	ALOS	Relative Weight	MCC Pediatric	MCC Adult
1	001-1	Liver Transplant &/Or Intestinal Transplant	6.93	7.0839	Misc Pediatric	Gastroent Adult
2	001-2	Liver Transplant &/Or Intestinal Transplant	8.51	7.7343	Misc Pediatric	Gastroent Adult
3	001-3	Liver Transplant &/Or Intestinal Transplant	13.19	9.8763	Misc Pediatric	Gastroent Adult
4	001-4	Liver Transplant &/Or Intestinal Transplant	32.06	19.3051	Misc Pediatric	Gastroent Adult
5	002-1	Heart &/Or Lung Transplant	10.29	9.5322	Misc Pediatric	Misc Adult
6	002-2	Heart &/Or Lung Transplant	14.7	11.3558	Misc Pediatric	Misc Adult
7	002-3	Heart &/Or Lung Transplant	25.33	16.027	Misc Pediatric	Misc Adult
8	002-4	Heart &/Or Lung Transplant	40.79	24.7273	Misc Pediatric	Misc Adult
9	003-1	Bone Marrow Transplant	19.1	6.1325	Misc Pediatric	Misc Adult
10	003-2	Bone Marrow Transplant	25.37	8.5838	Misc Pediatric	Misc Adult
11	003-3	Bone Marrow Transplant	37.7	14.09	Misc Pediatric	Misc Adult
12	003-4	Bone Marrow Transplant	52.87	24.7717	Misc Pediatric	Misc Adult
13	004-1	Ecmo Or Tracheostomy W Long Term Mechanical Ventilation W Extensive Procedure	18.17	7.1674	Misc Pediatric	Misc Adult
14	004-2	Ecmo Or Tracheostomy W Long Term Mechanical Ventilation W Extensive Procedure	22.9	8.9357	Misc Pediatric	Misc Adult
15	004-3	Ecmo Or Tracheostomy W Long Term Mechanical Ventilation W Extensive Procedure	28.13	10.7926	Misc Pediatric	Misc Adult

Appendix A

APR DRGs and Medicaid Care Categories

Count	APR DRG	APR DRG Description	ALOS	Relative Weight	MCC Pediatric	MCC Adult
16	004-4	Ecmo Or Tracheostomy W Long Term Mechanical Ventilation W Extensive Procedure	40.81	16.4784	Misc Pediatric	Misc Adult
17	005-1	Tracheostomy W Long Term Mechanical Ventilation W/O Extensive Procedure	22.28	5.4049	Misc Pediatric	Misc Adult
18	005-2	Tracheostomy W Long Term Mechanical Ventilation W/O Extensive Procedure	20.81	6.0055	Misc Pediatric	Misc Adult
19	005-3	Tracheostomy W Long Term Mechanical Ventilation W/O Extensive Procedure	25.06	7.7582	Misc Pediatric	Misc Adult
20	005-4	Tracheostomy W Long Term Mechanical Ventilation W/O Extensive Procedure	34.09	11.4708	Misc Pediatric	Misc Adult
21	006-1	Pancreas Transplant	6.58	6.2556	Misc Pediatric	Gastroent Adult
22	006-2	Pancreas Transplant	7.66	7.5936	Misc Pediatric	Gastroent Adult
23	006-3	Pancreas Transplant	10	8.764	Misc Pediatric	Gastroent Adult
24	006-4	Pancreas Transplant	25.3	13.3551	Misc Pediatric	Gastroent Adult
25	020-1	Craniotomy For Trauma	5.56	1.8055	Misc Pediatric	Misc Adult
26	020-2	Craniotomy For Trauma	6.96	2.6353	Misc Pediatric	Misc Adult
27	020-3	Craniotomy For Trauma	10.16	3.7529	Misc Pediatric	Misc Adult
28	020-4	Craniotomy For Trauma	17.81	7.019	Misc Pediatric	Misc Adult
29	021-1	Craniotomy Except For Trauma	4.21	2.0463	Misc Pediatric	Misc Adult
30	021-2	Craniotomy Except For Trauma	6.23	2.7616	Misc Pediatric	Misc Adult
31	021-3	Craniotomy Except For Trauma	11.62	4.5011	Misc Pediatric	Misc Adult
32	021-4	Craniotomy Except For Trauma	19.68	8.2328	Misc Pediatric	Misc Adult
33	022-1	Ventricular Shunt Procedures	2.92	1.18	Misc Pediatric	Misc Adult
34	022-2	Ventricular Shunt Procedures	5	1.6019	Misc Pediatric	Misc Adult
35	022-3	Ventricular Shunt Procedures	11.65	3.9072	Misc Pediatric	Misc Adult
36	022-4	Ventricular Shunt Procedures	19.65	8.0661	Misc Pediatric	Misc Adult
37	023-1	Spinal Procedures	3.16	1.3943	Misc Pediatric	Misc Adult
38	023-2	Spinal Procedures	5.92	1.926	Misc Pediatric	Misc Adult
39	023-3	Spinal Procedures	10.24	3.8404	Misc Pediatric	Misc Adult
40	023-4	Spinal Procedures	20.6	7.5898	Misc Pediatric	Misc Adult
41	024-1	Extracranial Vascular Procedures	1.57	1.0137	Misc Pediatric	Misc Adult
42	024-2	Extracranial Vascular Procedures	2.53	1.2718	Misc Pediatric	Misc Adult
43	024-3	Extracranial Vascular Procedures	6.88	2.6421	Misc Pediatric	Misc Adult

Appendix A

APR DRGs and Medicaid Care Categories

Count	APR DRG	APR DRG Description	ALOS	Relative Weight	MCC Pediatric	MCC Adult
44	024-4	Extracranial Vascular Procedures	14.56	5.909	Misc Pediatric	Misc Adult
45	026-1	Other Nervous System & Related Procedures	2.43	1.2619	Misc Pediatric	Misc Adult
46	026-2	Other Nervous System & Related Procedures	4.01	1.6506	Misc Pediatric	Misc Adult
47	026-3	Other Nervous System & Related Procedures	8.95	2.5719	Misc Pediatric	Misc Adult
48	026-4	Other Nervous System & Related Procedures	21.23	5.6841	Misc Pediatric	Misc Adult
49	040-1	Spinal Disorders & Injuries	3.67	0.8747	Misc Pediatric	Misc Adult
50	040-2	Spinal Disorders & Injuries	5.01	1.0834	Misc Pediatric	Misc Adult
51	040-3	Spinal Disorders & Injuries	7.12	1.4571	Misc Pediatric	Misc Adult
52	040-4	Spinal Disorders & Injuries	13.61	3.4744	Misc Pediatric	Misc Adult
53	041-1	Nervous System Malignancy	2.89	0.7361	Misc Pediatric	Misc Adult
54	041-2	Nervous System Malignancy	4.04	0.8121	Misc Pediatric	Misc Adult
55	041-3	Nervous System Malignancy	6.41	1.1863	Misc Pediatric	Misc Adult
56	041-4	Nervous System Malignancy	10.39	2.259	Misc Pediatric	Misc Adult
57	042-1	Degenerative Nervous System Disorders Exc Mult Sclerosis	4.81	0.5256	Misc Pediatric	Misc Adult
58	042-2	Degenerative Nervous System Disorders Exc Mult Sclerosis	7.71	0.6491	Misc Pediatric	Misc Adult
59	042-3	Degenerative Nervous System Disorders Exc Mult Sclerosis	8.4	0.9283	Misc Pediatric	Misc Adult
60	042-4	Degenerative Nervous System Disorders Exc Mult Sclerosis	12.63	2.5397	Misc Pediatric	Misc Adult
61	043-1	Multiple Sclerosis & Other Demyelinating Diseases	3.63	0.7294	Misc Pediatric	Misc Adult
62	043-2	Multiple Sclerosis & Other Demyelinating Diseases	4.65	0.8913	Misc Pediatric	Misc Adult
63	043-3	Multiple Sclerosis & Other Demyelinating Diseases	7.35	1.4012	Misc Pediatric	Misc Adult
64	043-4	Multiple Sclerosis & Other Demyelinating Diseases	14.63	3.677	Misc Pediatric	Misc Adult
65	044-1	Intracranial Hemorrhage	3.57	0.7544	Misc Pediatric	Misc Adult
66	044-2	Intracranial Hemorrhage	4.62	1.0156	Misc Pediatric	Misc Adult
67	044-3	Intracranial Hemorrhage	5.52	1.3508	Misc Pediatric	Misc Adult
68	044-4	Intracranial Hemorrhage	9.3	3.1084	Misc Pediatric	Misc Adult
69	045-1	Cva & Precerebral Occlusion W Infarct	2.88	0.716	Misc Pediatric	Misc Adult
70	045-2	Cva & Precerebral Occlusion W Infarct	3.98	0.835	Misc Pediatric	Misc Adult
71	045-3	Cva & Precerebral Occlusion W Infarct	5.95	1.154	Misc Pediatric	Misc Adult

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APR DRGs and Medicaid Care Categories

Count	APR DRG	APR DRG Description	ALOS	Relative Weight	MCC Pediatric	MCC Adult
72	045-4	Cva & Precerebral Occlusion W Infarct	10.57	2.4537	Misc Pediatric	Misc Adult
73	046-1	Nonspecific Cva & Precerebral Occlusion W/O Infarct	2.48	0.6868	Misc Pediatric	Misc Adult
74	046-2	Nonspecific Cva & Precerebral Occlusion W/O Infarct	3.29	0.7612	Misc Pediatric	Misc Adult
75	046-3	Nonspecific Cva & Precerebral Occlusion W/O Infarct	4.57	0.9861	Misc Pediatric	Misc Adult
76	046-4	Nonspecific Cva & Precerebral Occlusion W/O Infarct	8.06	1.8381	Misc Pediatric	Misc Adult
77	047-1	Transient Ischemia	1.94	0.5701	Misc Pediatric	Misc Adult
78	047-2	Transient Ischemia	2.55	0.6108	Misc Pediatric	Misc Adult
79	047-3	Transient Ischemia	3.58	0.7366	Misc Pediatric	Misc Adult
80	047-4	Transient Ischemia	7.09	1.4342	Misc Pediatric	Misc Adult
81	048-1	Peripheral, Cranial & Autonomic Nerve Disorders	2.8	0.5723	Misc Pediatric	Misc Adult
82	048-2	Peripheral, Cranial & Autonomic Nerve Disorders	3.87	0.6807	Misc Pediatric	Misc Adult
83	048-3	Peripheral, Cranial & Autonomic Nerve Disorders	5.12	0.8733	Misc Pediatric	Misc Adult
84	048-4	Peripheral, Cranial & Autonomic Nerve Disorders	10.51	1.9793	Misc Pediatric	Misc Adult
85	049-1	Bacterial & Tuberculous Infections Of Nervous System	5.74	0.9364	Misc Pediatric	Misc Adult
86	049-2	Bacterial & Tuberculous Infections Of Nervous System	6.67	1.7555	Misc Pediatric	Misc Adult
87	049-3	Bacterial & Tuberculous Infections Of Nervous System	9.81	2.2564	Misc Pediatric	Misc Adult
88	049-4	Bacterial & Tuberculous Infections Of Nervous System	14.74	4.3174	Misc Pediatric	Misc Adult
89	050-1	Non-Bacterial Infections Of Nervous System Exc Viral Meningitis	3.95	0.6268	Misc Pediatric	Misc Adult
90	050-2	Non-Bacterial Infections Of Nervous System Exc Viral Meningitis	5.44	1.0757	Misc Pediatric	Misc Adult
91	050-3	Non-Bacterial Infections Of Nervous System Exc Viral Meningitis	8.96	1.7881	Misc Pediatric	Misc Adult
92	050-4	Non-Bacterial Infections Of Nervous System Exc Viral Meningitis	15.46	4.1344	Misc Pediatric	Misc Adult
93	051-1	Viral Meningitis	2.66	0.4921	Misc Pediatric	Misc Adult
94	051-2	Viral Meningitis	3.76	0.7126	Misc Pediatric	Misc Adult
95	051-3	Viral Meningitis	6.1	1.2007	Misc Pediatric	Misc Adult
96	051-4	Viral Meningitis	11.06	2.6314	Misc Pediatric	Misc Adult
97	052-1	Nontraumatic Stupor & Coma	2.04	0.5376	Misc Pediatric	Misc Adult
98	052-2	Nontraumatic Stupor & Coma	3.17	0.6303	Misc Pediatric	Misc Adult
99	052-3	Nontraumatic Stupor & Coma	5.21	0.9188	Misc Pediatric	Misc Adult

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APR DRGs and Medicaid Care Categories

Count	APR DRG	APR DRG Description	ALOS	Relative Weight	MCC Pediatric	MCC Adult
100	052-4	Nontraumatic Stupor & Coma	9.67	2.2087	Misc Pediatric	Misc Adult
101	053-1	Seizure	2.29	0.4741	Misc Pediatric	Misc Adult
102	053-2	Seizure	2.97	0.5855	Misc Pediatric	Misc Adult
103	053-3	Seizure	4.35	0.8527	Misc Pediatric	Misc Adult
104	053-4	Seizure	9.19	2.2176	Misc Pediatric	Misc Adult
105	054-1	Migraine & Other Headaches	2.37	0.5079	Misc Pediatric	Misc Adult
106	054-2	Migraine & Other Headaches	2.86	0.5979	Misc Pediatric	Misc Adult
107	054-3	Migraine & Other Headaches	4.02	0.7912	Misc Pediatric	Misc Adult
108	054-4	Migraine & Other Headaches	6.59	1.2305	Misc Pediatric	Misc Adult
109	055-1	Head Trauma W Coma >1 Hr Or Hemorrhage	2.31	0.6556	Misc Pediatric	Misc Adult
110	055-2	Head Trauma W Coma >1 Hr Or Hemorrhage	3.61	0.9045	Misc Pediatric	Misc Adult
111	055-3	Head Trauma W Coma >1 Hr Or Hemorrhage	5.26	1.3454	Misc Pediatric	Misc Adult
112	055-4	Head Trauma W Coma >1 Hr Or Hemorrhage	10.75	3.1406	Misc Pediatric	Misc Adult
113	056-1	Brain Contusion/Laceration & Complicated Skull Fx, Coma < 1 Hr Or No Coma	2.22	0.6444	Misc Pediatric	Misc Adult
114	056-2	Brain Contusion/Laceration & Complicated Skull Fx, Coma < 1 Hr Or No Coma	3.6	0.9098	Misc Pediatric	Misc Adult
115	056-3	Brain Contusion/Laceration & Complicated Skull Fx, Coma < 1 Hr Or No Coma	6.08	1.4909	Misc Pediatric	Misc Adult
116	056-4	Brain Contusion/Laceration & Complicated Skull Fx, Coma < 1 Hr Or No Coma	11.51	3.4785	Misc Pediatric	Misc Adult
117	057-1	Concussion, Closed Skull Fx Nos,Uncomplicated Intracranial Injury, Coma < 1 Hr Or No Coma	1.5	0.6355	Misc Pediatric	Misc Adult
118	057-2	Concussion, Closed Skull Fx Nos,Uncomplicated Intracranial Injury, Coma < 1 Hr Or No Coma	2.44	0.8296	Misc Pediatric	Misc Adult
119	057-3	Concussion, Closed Skull Fx Nos,Uncomplicated Intracranial Injury, Coma < 1 Hr Or No Coma	4.4	1.1807	Misc Pediatric	Misc Adult
120	057-4	Concussion, Closed Skull Fx Nos,Uncomplicated Intracranial Injury, Coma < 1 Hr Or No Coma	10.2	2.6695	Misc Pediatric	Misc Adult
121	058-1	Other Disorders Of Nervous System	2.83	0.6122	Misc Pediatric	Misc Adult
122	058-2	Other Disorders Of Nervous System	4.06	0.7569	Misc Pediatric	Misc Adult
123	058-3	Other Disorders Of Nervous System	5.91	1.0272	Misc Pediatric	Misc Adult
124	058-4	Other Disorders Of Nervous System	11.14	2.3672	Misc Pediatric	Misc Adult

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APR DRGs and Medicaid Care Categories

Count	APR DRG	APR DRG Description	ALOS	Relative Weight	MCC Pediatric	MCC Adult
125	070-1	Orbital Procedures	1.98	0.8388	Misc Pediatric	Misc Adult
126	070-2	Orbital Procedures	3.65	1.2309	Misc Pediatric	Misc Adult
127	070-3	Orbital Procedures	6.7	2.1202	Misc Pediatric	Misc Adult
128	070-4	Orbital Procedures	12.69	4.0461	Misc Pediatric	Misc Adult
129	073-1	Eye Procedures Except Orbit	2.1	0.7114	Misc Pediatric	Misc Adult
130	073-2	Eye Procedures Except Orbit	3.12	0.8499	Misc Pediatric	Misc Adult
131	073-3	Eye Procedures Except Orbit	6.47	1.4877	Misc Pediatric	Misc Adult
132	073-4	Eye Procedures Except Orbit	19.54	6.3395	Misc Pediatric	Misc Adult
133	080-1	Acute Major Eye Infections	2.84	0.3786	Misc Pediatric	Misc Adult
134	080-2	Acute Major Eye Infections	3.89	0.5305	Misc Pediatric	Misc Adult
135	080-3	Acute Major Eye Infections	5.61	0.9217	Misc Pediatric	Misc Adult
136	080-4	Acute Major Eye Infections	10.58	2.1345	Misc Pediatric	Misc Adult
137	082-1	Eye Disorders Except Major Infections	2.28	0.4798	Misc Pediatric	Misc Adult
138	082-2	Eye Disorders Except Major Infections	2.87	0.6028	Misc Pediatric	Misc Adult
139	082-3	Eye Disorders Except Major Infections	4.57	0.8881	Misc Pediatric	Misc Adult
140	082-4	Eye Disorders Except Major Infections	11.25	2.5099	Misc Pediatric	Misc Adult
141	089-1	Major Cranial/Facial Bone Procedures	2.39	1.5074	Misc Pediatric	Misc Adult
142	089-2	Major Cranial/Facial Bone Procedures	3.92	2.0304	Misc Pediatric	Misc Adult
143	089-3	Major Cranial/Facial Bone Procedures	8.55	3.5481	Misc Pediatric	Misc Adult
144	089-4	Major Cranial/Facial Bone Procedures	20.75	7.5132	Misc Pediatric	Misc Adult
145	090-1	Major Larynx & Trachea Procedures	3.39	0.87	Misc Pediatric	Misc Adult
146	090-2	Major Larynx & Trachea Procedures	8.36	2.2967	Misc Pediatric	Misc Adult
147	090-3	Major Larynx & Trachea Procedures	13.45	3.6963	Misc Pediatric	Misc Adult
148	090-4	Major Larynx & Trachea Procedures	25.39	7.7386	Misc Pediatric	Misc Adult
149	091-1	Other Major Head & Neck Procedures	3.2	1.324	Misc Pediatric	Misc Adult
150	091-2	Other Major Head & Neck Procedures	4.72	2.1229	Misc Pediatric	Misc Adult
151	091-3	Other Major Head & Neck Procedures	10.34	3.8113	Misc Pediatric	Misc Adult
152	091-4	Other Major Head & Neck Procedures	16.6	5.6678	Misc Pediatric	Misc Adult

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APR DRGs and Medicaid Care Categories

Count	APR DRG	APR DRG Description	ALOS	Relative Weight	MCC Pediatric	MCC Adult
153	092-1	Facial Bone Procedures Except Major Cranial/Facial Bone Procedures	2.11	1.0766	Misc Pediatric	Misc Adult
154	092-2	Facial Bone Procedures Except Major Cranial/Facial Bone Procedures	3.06	1.4355	Misc Pediatric	Misc Adult
155	092-3	Facial Bone Procedures Except Major Cranial/Facial Bone Procedures	6.05	2.2939	Misc Pediatric	Misc Adult
156	092-4	Facial Bone Procedures Except Major Cranial/Facial Bone Procedures	16.14	5.2716	Misc Pediatric	Misc Adult
157	093-1	Sinus & Mastoid Procedures	2.19	0.9441	Misc Pediatric	Misc Adult
158	093-2	Sinus & Mastoid Procedures	3.9	1.3132	Misc Pediatric	Misc Adult
159	093-3	Sinus & Mastoid Procedures	7.52	2.034	Misc Pediatric	Misc Adult
160	093-4	Sinus & Mastoid Procedures	15.14	4.7634	Misc Pediatric	Misc Adult
161	095-1	Cleft Lip & Palate Repair	1.45	0.6723	Misc Pediatric	Misc Adult
162	095-2	Cleft Lip & Palate Repair	1.97	0.7933	Misc Pediatric	Misc Adult
163	095-3	Cleft Lip & Palate Repair	3.27	1.1597	Misc Pediatric	Misc Adult
164	095-4	Cleft Lip & Palate Repair	10	2.6626	Misc Pediatric	Misc Adult
165	097-1	Tonsil & Adenoid Procedures	1.59	0.4205	Misc Pediatric	Misc Adult
166	097-2	Tonsil & Adenoid Procedures	2.72	0.6625	Misc Pediatric	Misc Adult
167	097-3	Tonsil & Adenoid Procedures	6.01	1.4162	Misc Pediatric	Misc Adult
168	097-4	Tonsil & Adenoid Procedures	13.81	3.5776	Misc Pediatric	Misc Adult
169	098-1	Other Ear, Nose, Mouth & Throat Procedures	2.09	0.7695	Misc Pediatric	Misc Adult
170	098-2	Other Ear, Nose, Mouth & Throat Procedures	3.38	0.9734	Misc Pediatric	Misc Adult
171	098-3	Other Ear, Nose, Mouth & Throat Procedures	6.94	1.7326	Misc Pediatric	Misc Adult
172	098-4	Other Ear, Nose, Mouth & Throat Procedures	15.61	4.0101	Misc Pediatric	Misc Adult
173	110-1	Ear, Nose, Mouth, Throat, Cranial/Facial Malignancies	2.83	0.5952	Misc Pediatric	Misc Adult
174	110-2	Ear, Nose, Mouth, Throat, Cranial/Facial Malignancies	4.16	0.719	Misc Pediatric	Misc Adult
175	110-3	Ear, Nose, Mouth, Throat, Cranial/Facial Malignancies	7.31	1.2761	Misc Pediatric	Misc Adult
176	110-4	Ear, Nose, Mouth, Throat, Cranial/Facial Malignancies	12.3	2.3945	Misc Pediatric	Misc Adult
177	111-1	Vertigo & Other Labyrinth Disorders	2.02	0.5004	Misc Pediatric	Misc Adult
178	111-2	Vertigo & Other Labyrinth Disorders	2.53	0.5453	Misc Pediatric	Misc Adult
179	111-3	Vertigo & Other Labyrinth Disorders	3.34	0.6396	Misc Pediatric	Misc Adult
180	111-4	Vertigo & Other Labyrinth Disorders	6.38	0.9254	Misc Pediatric	Misc Adult

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APR DRGs and Medicaid Care Categories

Count	APR DRG	APR DRG Description	ALOS	Relative Weight	MCC Pediatric	MCC Adult
181	113-1	Infections Of Upper Respiratory Tract	1.9	0.2723	Resp Pediatric	Resp Adult
182	113-2	Infections Of Upper Respiratory Tract	2.57	0.4109	Resp Pediatric	Resp Adult
183	113-3	Infections Of Upper Respiratory Tract	3.88	0.6903	Resp Pediatric	Resp Adult
184	113-4	Infections Of Upper Respiratory Tract	7.97	1.7346	Resp Pediatric	Resp Adult
185	114-1	Dental & Oral Diseases & Injuries	2.22	0.45	Misc Pediatric	Misc Adult
186	114-2	Dental & Oral Diseases & Injuries	3.12	0.6061	Misc Pediatric	Misc Adult
187	114-3	Dental & Oral Diseases & Injuries	5.54	1.0472	Misc Pediatric	Misc Adult
188	114-4	Dental & Oral Diseases & Injuries	10.44	2.4649	Misc Pediatric	Misc Adult
189	115-1	Other Ear, Nose, Mouth,Throat & Cranial/Facial Diagnoses	2.25	0.4424	Misc Pediatric	Misc Adult
190	115-2	Other Ear, Nose, Mouth,Throat & Cranial/Facial Diagnoses	2.97	0.6053	Misc Pediatric	Misc Adult
191	115-3	Other Ear, Nose, Mouth,Throat & Cranial/Facial Diagnoses	4.6	0.875	Misc Pediatric	Misc Adult
192	115-4	Other Ear, Nose, Mouth,Throat & Cranial/Facial Diagnoses	8.58	1.9328	Misc Pediatric	Misc Adult
193	120-1	Major Respiratory & Chest Procedures	5.08	1.7082	Resp Pediatric	Resp Adult
194	120-2	Major Respiratory & Chest Procedures	7.05	2.1165	Resp Pediatric	Resp Adult
195	120-3	Major Respiratory & Chest Procedures	11.59	3.1655	Resp Pediatric	Resp Adult
196	120-4	Major Respiratory & Chest Procedures	19.7	6.2059	Resp Pediatric	Resp Adult
197	121-1	Other Respiratory & Chest Procedures	3.57	1.1532	Resp Pediatric	Resp Adult
198	121-2	Other Respiratory & Chest Procedures	5.73	1.5424	Resp Pediatric	Resp Adult
199	121-3	Other Respiratory & Chest Procedures	10.67	2.5715	Resp Pediatric	Resp Adult
200	121-4	Other Respiratory & Chest Procedures	19.27	5.7937	Resp Pediatric	Resp Adult
201	130-1	Respiratory System Diagnosis W Ventilator Support 96+ Hours	10.4	2.7433	Resp Pediatric	Resp Adult
202	130-2	Respiratory System Diagnosis W Ventilator Support 96+ Hours	12.23	3.1867	Resp Pediatric	Resp Adult
203	130-3	Respiratory System Diagnosis W Ventilator Support 96+ Hours	14.19	3.8662	Resp Pediatric	Resp Adult
204	130-4	Respiratory System Diagnosis W Ventilator Support 96+ Hours	17.44	5.3935	Resp Pediatric	Resp Adult
205	131-1	Cystic Fibrosis - Pulmonary Disease	5.98	1.1933	Resp Pediatric	Resp Adult
206	131-2	Cystic Fibrosis - Pulmonary Disease	7.64	1.5834	Resp Pediatric	Resp Adult
207	131-3	Cystic Fibrosis - Pulmonary Disease	10.38	2.107	Resp Pediatric	Resp Adult
208	131-4	Cystic Fibrosis - Pulmonary Disease	13.8	2.8703	Resp Pediatric	Resp Adult

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APR DRGs and Medicaid Care Categories

Count	APR DRG	APR DRG Description	ALOS	Relative Weight	MCC Pediatric	MCC Adult
209	132-1	Bpd & Oth Chronic Respiratory Diseases Arising In Perinatal Period	3.01	0.4127	Resp Pediatric	Resp Adult
210	132-2	Bpd & Oth Chronic Respiratory Diseases Arising In Perinatal Period	4.18	0.5852	Resp Pediatric	Resp Adult
211	132-3	Bpd & Oth Chronic Respiratory Diseases Arising In Perinatal Period	6.63	1.0338	Resp Pediatric	Resp Adult
212	132-4	Bpd & Oth Chronic Respiratory Diseases Arising In Perinatal Period	11	2.2348	Resp Pediatric	Resp Adult
213	133-1	Pulmonary Edema & Respiratory Failure	2.53	0.5305	Resp Pediatric	Resp Adult
214	133-2	Pulmonary Edema & Respiratory Failure	4.16	0.7045	Resp Pediatric	Resp Adult
215	133-3	Pulmonary Edema & Respiratory Failure	5.65	1.0349	Resp Pediatric	Resp Adult
216	133-4	Pulmonary Edema & Respiratory Failure	7.14	1.9682	Resp Pediatric	Resp Adult
217	134-1	Pulmonary Embolism	3.87	0.7005	Resp Pediatric	Resp Adult
218	134-2	Pulmonary Embolism	4.78	0.8855	Resp Pediatric	Resp Adult
219	134-3	Pulmonary Embolism	6.37	1.2629	Resp Pediatric	Resp Adult
220	134-4	Pulmonary Embolism	8.79	2.1387	Resp Pediatric	Resp Adult
221	135-1	Major Chest & Respiratory Trauma	2.83	0.6315	Resp Pediatric	Resp Adult
222	135-2	Major Chest & Respiratory Trauma	3.68	0.8052	Resp Pediatric	Resp Adult
223	135-3	Major Chest & Respiratory Trauma	5.68	1.156	Resp Pediatric	Resp Adult
224	135-4	Major Chest & Respiratory Trauma	8.17	2.114	Resp Pediatric	Resp Adult
225	136-1	Respiratory Malignancy	3.25	0.5823	Resp Pediatric	Resp Adult
226	136-2	Respiratory Malignancy	4.47	0.8176	Resp Pediatric	Resp Adult
227	136-3	Respiratory Malignancy	6.94	1.3033	Resp Pediatric	Resp Adult
228	136-4	Respiratory Malignancy	9.87	2.1762	Resp Pediatric	Resp Adult
229	137-1	Major Respiratory Infections & Inflammations	4.83	0.6469	Resp Pediatric	Resp Adult
230	137-2	Major Respiratory Infections & Inflammations	5.57	0.8496	Resp Pediatric	Resp Adult
231	137-3	Major Respiratory Infections & Inflammations	7.3	1.2576	Resp Pediatric	Resp Adult
232	137-4	Major Respiratory Infections & Inflammations	10.02	2.1067	Resp Pediatric	Resp Adult
233	138-1	Bronchiolitis & Rsv Pneumonia	2.35	0.2932	Resp Pediatric	Resp Adult
234	138-2	Bronchiolitis & Rsv Pneumonia	3.1	0.3881	Resp Pediatric	Resp Adult
235	138-3	Bronchiolitis & Rsv Pneumonia	5.39	0.9426	Resp Pediatric	Resp Adult
236	138-4	Bronchiolitis & Rsv Pneumonia	8.38	2.073	Resp Pediatric	Resp Adult

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APR DRGs and Medicaid Care Categories

Count	APR DRG	APR DRG Description	ALOS	Relative Weight	MCC Pediatric	MCC Adult
237	139-1	Other Pneumonia	2.72	0.3886	Resp Pediatric	Resp Adult
238	139-2	Other Pneumonia	3.81	0.5773	Resp Pediatric	Resp Adult
239	139-3	Other Pneumonia	5.47	0.8937	Resp Pediatric	Resp Adult
240	139-4	Other Pneumonia	8.28	1.7342	Resp Pediatric	Resp Adult
241	140-1	Chronic Obstructive Pulmonary Disease	3.25	0.4933	Resp Pediatric	Resp Adult
242	140-2	Chronic Obstructive Pulmonary Disease	3.98	0.6185	Resp Pediatric	Resp Adult
243	140-3	Chronic Obstructive Pulmonary Disease	5.16	0.8465	Resp Pediatric	Resp Adult
244	140-4	Chronic Obstructive Pulmonary Disease	8.34	1.6086	Resp Pediatric	Resp Adult
245	141-1	Asthma	2.17	0.3506	Resp Pediatric	Resp Adult
246	141-2	Asthma	3.03	0.4946	Resp Pediatric	Resp Adult
247	141-3	Asthma	4.4	0.7464	Resp Pediatric	Resp Adult
248	141-4	Asthma	5.89	1.4218	Resp Pediatric	Resp Adult
249	142-1	Interstitial & Alveolar Lung Diseases	3.36	0.6424	Resp Pediatric	Resp Adult
250	142-2	Interstitial & Alveolar Lung Diseases	4.37	0.7767	Resp Pediatric	Resp Adult
251	142-3	Interstitial & Alveolar Lung Diseases	6.08	1.0727	Resp Pediatric	Resp Adult
252	142-4	Interstitial & Alveolar Lung Diseases	9.48	1.9514	Resp Pediatric	Resp Adult
253	143-1	Other Respiratory Diagnoses Except Signs, Symptoms & Minor Diagnoses	2.93	0.4322	Resp Pediatric	Resp Adult
254	143-2	Other Respiratory Diagnoses Except Signs, Symptoms & Minor Diagnoses	3.85	0.6761	Resp Pediatric	Resp Adult
255	143-3	Other Respiratory Diagnoses Except Signs, Symptoms & Minor Diagnoses	5.65	1.0927	Resp Pediatric	Resp Adult
256	143-4	Other Respiratory Diagnoses Except Signs, Symptoms & Minor Diagnoses	8.24	1.9283	Resp Pediatric	Resp Adult
257	144-1	Respiratory Signs, Symptoms & Minor Diagnoses	2.16	0.4346	Resp Pediatric	Resp Adult
258	144-2	Respiratory Signs, Symptoms & Minor Diagnoses	2.98	0.5314	Resp Pediatric	Resp Adult
259	144-3	Respiratory Signs, Symptoms & Minor Diagnoses	4.1	0.7309	Resp Pediatric	Resp Adult
260	144-4	Respiratory Signs, Symptoms & Minor Diagnoses	6.83	1.3576	Resp Pediatric	Resp Adult
261	160-1	Major Cardiothoracic Repair Of Heart Anomaly	4.38	3.1278	Misc Pediatric	Circulatory Adult
262	160-2	Major Cardiothoracic Repair Of Heart Anomaly	5.75	3.5898	Misc Pediatric	Circulatory Adult
263	160-3	Major Cardiothoracic Repair Of Heart Anomaly	9.27	5.2416	Misc Pediatric	Circulatory Adult
264	160-4	Major Cardiothoracic Repair Of Heart Anomaly	23.86	10.4605	Misc Pediatric	Circulatory Adult

Appendix A

APR DRGs and Medicaid Care Categories

Count	APR DRG	APR DRG Description	ALOS	Relative Weight	MCC Pediatric	MCC Adult
265	161-1	Cardiac Defibrillator & Heart Assist Implant	2.83	4.0096	Misc Pediatric	Circulatory Adult
266	161-2	Cardiac Defibrillator & Heart Assist Implant	6.98	5.0477	Misc Pediatric	Circulatory Adult
267	161-3	Cardiac Defibrillator & Heart Assist Implant	15.39	8.253	Misc Pediatric	Circulatory Adult
268	161-4	Cardiac Defibrillator & Heart Assist Implant	32.28	21.8899	Misc Pediatric	Circulatory Adult
269	162-1	Cardiac Valve Procedures W Cardiac Catheterization	7.92	4.183	Misc Pediatric	Circulatory Adult
270	162-2	Cardiac Valve Procedures W Cardiac Catheterization	8.72	4.64	Misc Pediatric	Circulatory Adult
271	162-3	Cardiac Valve Procedures W Cardiac Catheterization	12.38	5.943	Misc Pediatric	Circulatory Adult
272	162-4	Cardiac Valve Procedures W Cardiac Catheterization	20.63	9.5864	Misc Pediatric	Circulatory Adult
273	163-1	Cardiac Valve Procedures W/O Cardiac Catheterization	5.29	3.3785	Misc Pediatric	Circulatory Adult
274	163-2	Cardiac Valve Procedures W/O Cardiac Catheterization	6.17	3.7489	Misc Pediatric	Circulatory Adult
275	163-3	Cardiac Valve Procedures W/O Cardiac Catheterization	8.62	4.7338	Misc Pediatric	Circulatory Adult
276	163-4	Cardiac Valve Procedures W/O Cardiac Catheterization	16.86	8.3517	Misc Pediatric	Circulatory Adult
277	165-1	Coronary Bypass W Cardiac Cath Or Percutaneous Cardiac Procedure	6.69	3.3103	Misc Pediatric	Circulatory Adult
278	165-2	Coronary Bypass W Cardiac Cath Or Percutaneous Cardiac Procedure	8.01	3.7846	Misc Pediatric	Circulatory Adult
279	165-3	Coronary Bypass W Cardiac Cath Or Percutaneous Cardiac Procedure	10.22	4.6177	Misc Pediatric	Circulatory Adult
280	165-4	Coronary Bypass W Cardiac Cath Or Percutaneous Cardiac Procedure	16.69	7.1951	Misc Pediatric	Circulatory Adult
281	166-1	Coronary Bypass W/O Cardiac Cath Or Percutaneous Cardiac Procedure	4.96	2.5681	Misc Pediatric	Circulatory Adult
282	166-2	Coronary Bypass W/O Cardiac Cath Or Percutaneous Cardiac Procedure	5.9	2.8429	Misc Pediatric	Circulatory Adult
283	166-3	Coronary Bypass W/O Cardiac Cath Or Percutaneous Cardiac Procedure	8.09	3.6188	Misc Pediatric	Circulatory Adult
284	166-4	Coronary Bypass W/O Cardiac Cath Or Percutaneous Cardiac Procedure	14.92	6.1761	Misc Pediatric	Circulatory Adult
285	167-1	Other Cardiothoracic Procedures	4.15	2.6184	Misc Pediatric	Circulatory Adult
286	167-2	Other Cardiothoracic Procedures	5.36	3.0045	Misc Pediatric	Circulatory Adult
287	167-3	Other Cardiothoracic Procedures	8.65	4.1083	Misc Pediatric	Circulatory Adult
288	167-4	Other Cardiothoracic Procedures	17.25	7.6323	Misc Pediatric	Circulatory Adult
289	169-1	Major Thoracic & Abdominal Vascular Procedures	4.42	1.6444	Misc Pediatric	Circulatory Adult
290	169-2	Major Thoracic & Abdominal Vascular Procedures	5.63	2.1643	Misc Pediatric	Circulatory Adult
291	169-3	Major Thoracic & Abdominal Vascular Procedures	8.67	3.3869	Misc Pediatric	Circulatory Adult
292	169-4	Major Thoracic & Abdominal Vascular Procedures	15.96	7.0419	Misc Pediatric	Circulatory Adult

Appendix A

APR DRGs and Medicaid Care Categories

Count	APR DRG	APR DRG Description	ALOS	Relative Weight	MCC Pediatric	MCC Adult
293	170-1	Permanent Cardiac Pacemaker Implant W Ami, Heart Failure Or Shock	3.77	2.1587	Misc Pediatric	Circulatory Adult
294	170-2	Permanent Cardiac Pacemaker Implant W Ami, Heart Failure Or Shock	5.11	2.4469	Misc Pediatric	Circulatory Adult
295	170-3	Permanent Cardiac Pacemaker Implant W Ami, Heart Failure Or Shock	8.62	2.8469	Misc Pediatric	Circulatory Adult
296	170-4	Permanent Cardiac Pacemaker Implant W Ami, Heart Failure Or Shock	14.58	4.521	Misc Pediatric	Circulatory Adult
297	171-1	Perm Cardiac Pacemaker Implant W/O Ami, Heart Failure Or Shock	2.38	1.5042	Misc Pediatric	Circulatory Adult
298	171-2	Perm Cardiac Pacemaker Implant W/O Ami, Heart Failure Or Shock	3.73	1.7463	Misc Pediatric	Circulatory Adult
299	171-3	Perm Cardiac Pacemaker Implant W/O Ami, Heart Failure Or Shock	6.15	2.2516	Misc Pediatric	Circulatory Adult
300	171-4	Perm Cardiac Pacemaker Implant W/O Ami, Heart Failure Or Shock	11.87	3.7893	Misc Pediatric	Circulatory Adult
301	173-1	Other Vascular Procedures	2.37	1.6274	Misc Pediatric	Circulatory Adult
302	173-2	Other Vascular Procedures	3.81	1.9765	Misc Pediatric	Circulatory Adult
303	173-3	Other Vascular Procedures	7.9	2.7252	Misc Pediatric	Circulatory Adult
304	173-4	Other Vascular Procedures	17.25	5.4912	Misc Pediatric	Circulatory Adult
305	174-1	Percutaneous Cardiovascular Procedures W Ami	2.49	1.9451	Misc Pediatric	Circulatory Adult
306	174-2	Percutaneous Cardiovascular Procedures W Ami	3.05	2.0565	Misc Pediatric	Circulatory Adult
307	174-3	Percutaneous Cardiovascular Procedures W Ami	4.81	2.4895	Misc Pediatric	Circulatory Adult
308	174-4	Percutaneous Cardiovascular Procedures W Ami	8.43	4.1252	Misc Pediatric	Circulatory Adult
309	175-1	Percutaneous Cardiovascular Procedures W/O Ami	1.51	1.663	Misc Pediatric	Circulatory Adult
310	175-2	Percutaneous Cardiovascular Procedures W/O Ami	2.09	1.7804	Misc Pediatric	Circulatory Adult
311	175-3	Percutaneous Cardiovascular Procedures W/O Ami	4.09	2.2356	Misc Pediatric	Circulatory Adult
312	175-4	Percutaneous Cardiovascular Procedures W/O Ami	9.59	3.758	Misc Pediatric	Circulatory Adult
313	176-1	Cardiac Pacemaker & Defibrillator Device Replacement	2.54	1.3302	Misc Pediatric	Circulatory Adult
314	176-2	Cardiac Pacemaker & Defibrillator Device Replacement	2.09	2.78	Misc Pediatric	Circulatory Adult
315	176-3	Cardiac Pacemaker & Defibrillator Device Replacement	3.83	2.8913	Misc Pediatric	Circulatory Adult
316	176-4	Cardiac Pacemaker & Defibrillator Device Replacement	12.9	4.2999	Misc Pediatric	Circulatory Adult
317	177-1	Cardiac Pacemaker & Defibrillator Revision Except Device Replacement	2.3	0.9921	Misc Pediatric	Circulatory Adult
318	177-2	Cardiac Pacemaker & Defibrillator Revision Except Device Replacement	3.79	1.4444	Misc Pediatric	Circulatory Adult
319	177-3	Cardiac Pacemaker & Defibrillator Revision Except Device Replacement	6.66	2.0056	Misc Pediatric	Circulatory Adult
320	177-4	Cardiac Pacemaker & Defibrillator Revision Except Device Replacement	17.17	4.3636	Misc Pediatric	Circulatory Adult

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APR DRGs and Medicaid Care Categories

Count	APR DRG	APR DRG Description	ALOS	Relative Weight	MCC Pediatric	MCC Adult
321	180-1	Other Circulatory System Procedures	3.68	1.0113	Misc Pediatric	Circulatory Adult
322	180-2	Other Circulatory System Procedures	5.76	1.4507	Misc Pediatric	Circulatory Adult
323	180-3	Other Circulatory System Procedures	9.22	2.1683	Misc Pediatric	Circulatory Adult
324	180-4	Other Circulatory System Procedures	15.75	4.317	Misc Pediatric	Circulatory Adult
325	190-1	Acute Myocardial Infarction	2.15	0.685	Misc Pediatric	Circulatory Adult
326	190-2	Acute Myocardial Infarction	3.08	0.8035	Misc Pediatric	Circulatory Adult
327	190-3	Acute Myocardial Infarction	4.87	1.0665	Misc Pediatric	Circulatory Adult
328	190-4	Acute Myocardial Infarction	7.56	1.9974	Misc Pediatric	Circulatory Adult
329	191-1	Cardiac Catheterization W Circ Disord Exc Ischemic Heart Disease	2.54	0.9875	Misc Pediatric	Circulatory Adult
330	191-2	Cardiac Catheterization W Circ Disord Exc Ischemic Heart Disease	3.5	1.138	Misc Pediatric	Circulatory Adult
331	191-3	Cardiac Catheterization W Circ Disord Exc Ischemic Heart Disease	5.54	1.4763	Misc Pediatric	Circulatory Adult
332	191-4	Cardiac Catheterization W Circ Disord Exc Ischemic Heart Disease	10.86	2.9624	Misc Pediatric	Circulatory Adult
333	192-1	Cardiac Catheterization For Ischemic Heart Disease	1.95	0.8442	Misc Pediatric	Circulatory Adult
334	192-2	Cardiac Catheterization For Ischemic Heart Disease	2.54	0.955	Misc Pediatric	Circulatory Adult
335	192-3	Cardiac Catheterization For Ischemic Heart Disease	3.94	1.2068	Misc Pediatric	Circulatory Adult
336	192-4	Cardiac Catheterization For Ischemic Heart Disease	7.14	1.8847	Misc Pediatric	Circulatory Adult
337	193-1	Acute & Subacute Endocarditis	4.98	0.7338	Misc Pediatric	Circulatory Adult
338	193-2	Acute & Subacute Endocarditis	7.09	1.2463	Misc Pediatric	Circulatory Adult
339	193-3	Acute & Subacute Endocarditis	10.28	1.8298	Misc Pediatric	Circulatory Adult
340	193-4	Acute & Subacute Endocarditis	13.46	3.266	Misc Pediatric	Circulatory Adult
341	194-1	Heart Failure	2.91	0.4968	Misc Pediatric	Circulatory Adult
342	194-2	Heart Failure	3.83	0.6278	Misc Pediatric	Circulatory Adult
343	194-3	Heart Failure	5.6	0.9418	Misc Pediatric	Circulatory Adult
344	194-4	Heart Failure	9.4	1.9135	Misc Pediatric	Circulatory Adult
345	196-1	Cardiac Arrest	1.85	0.4352	Misc Pediatric	Circulatory Adult
346	196-2	Cardiac Arrest	2.64	0.4573	Misc Pediatric	Circulatory Adult
347	196-3	Cardiac Arrest	2.24	0.7544	Misc Pediatric	Circulatory Adult
348	196-4	Cardiac Arrest	4.72	1.6982	Misc Pediatric	Circulatory Adult

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APR DRGs and Medicaid Care Categories

Count	APR DRG	APR DRG Description	ALOS	Relative Weight	MCC Pediatric	MCC Adult
349	197-1	Peripheral & Other Vascular Disorders	3.34	0.4706	Misc Pediatric	Circulatory Adult
350	197-2	Peripheral & Other Vascular Disorders	4.13	0.6423	Misc Pediatric	Circulatory Adult
351	197-3	Peripheral & Other Vascular Disorders	5.53	0.9794	Misc Pediatric	Circulatory Adult
352	197-4	Peripheral & Other Vascular Disorders	8.93	1.9743	Misc Pediatric	Circulatory Adult
353	198-1	Angina Pectoris & Coronary Atherosclerosis	1.66	0.4188	Misc Pediatric	Circulatory Adult
354	198-2	Angina Pectoris & Coronary Atherosclerosis	2.18	0.4843	Misc Pediatric	Circulatory Adult
355	198-3	Angina Pectoris & Coronary Atherosclerosis	3.14	0.6237	Misc Pediatric	Circulatory Adult
356	198-4	Angina Pectoris & Coronary Atherosclerosis	6.22	1.2653	Misc Pediatric	Circulatory Adult
357	199-1	Hypertension	1.98	0.4462	Misc Pediatric	Circulatory Adult
358	199-2	Hypertension	2.63	0.5288	Misc Pediatric	Circulatory Adult
359	199-3	Hypertension	3.83	0.7233	Misc Pediatric	Circulatory Adult
360	199-4	Hypertension	7.94	1.5013	Misc Pediatric	Circulatory Adult
361	200-1	Cardiac Structural & Valvular Disorders	2.28	0.5189	Misc Pediatric	Circulatory Adult
362	200-2	Cardiac Structural & Valvular Disorders	3.06	0.626	Misc Pediatric	Circulatory Adult
363	200-3	Cardiac Structural & Valvular Disorders	4.91	0.8791	Misc Pediatric	Circulatory Adult
364	200-4	Cardiac Structural & Valvular Disorders	10.03	2.1087	Misc Pediatric	Circulatory Adult
365	201-1	Cardiac Arrhythmia & Conduction Disorders	2.04	0.4244	Misc Pediatric	Circulatory Adult
366	201-2	Cardiac Arrhythmia & Conduction Disorders	2.86	0.5372	Misc Pediatric	Circulatory Adult
367	201-3	Cardiac Arrhythmia & Conduction Disorders	4.26	0.7504	Misc Pediatric	Circulatory Adult
368	201-4	Cardiac Arrhythmia & Conduction Disorders	7.64	1.5438	Misc Pediatric	Circulatory Adult
369	203-1	Chest Pain	1.45	0.4395	Misc Pediatric	Circulatory Adult
370	203-2	Chest Pain	1.9	0.5102	Misc Pediatric	Circulatory Adult
371	203-3	Chest Pain	2.8	0.6361	Misc Pediatric	Circulatory Adult
372	203-4	Chest Pain	5.95	1.1262	Misc Pediatric	Circulatory Adult
373	204-1	Syncope & Collapse	2	0.5067	Misc Pediatric	Circulatory Adult
374	204-2	Syncope & Collapse	2.67	0.5794	Misc Pediatric	Circulatory Adult
375	204-3	Syncope & Collapse	3.66	0.7051	Misc Pediatric	Circulatory Adult
376	204-4	Syncope & Collapse	6.74	1.3052	Misc Pediatric	Circulatory Adult

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APR DRGs and Medicaid Care Categories

Count	APR DRG	APR DRG Description	ALOS	Relative Weight	MCC Pediatric	MCC Adult
377	205-1	Cardiomyopathy	2.3	0.4911	Misc Pediatric	Circulatory Adult
378	205-2	Cardiomyopathy	3.15	0.5915	Misc Pediatric	Circulatory Adult
379	205-3	Cardiomyopathy	4.53	0.802	Misc Pediatric	Circulatory Adult
380	205-4	Cardiomyopathy	8.08	1.9675	Misc Pediatric	Circulatory Adult
381	206-1	Malfunction,Reaction,Complication Of Cardiac/Vasc Device Or Procedure	2.3	0.5556	Misc Pediatric	Circulatory Adult
382	206-2	Malfunction,Reaction,Complication Of Cardiac/Vasc Device Or Procedure	3.49	0.684	Misc Pediatric	Circulatory Adult
383	206-3	Malfunction,Reaction,Complication Of Cardiac/Vasc Device Or Procedure	5.72	1.1278	Misc Pediatric	Circulatory Adult
384	206-4	Malfunction,Reaction,Complication Of Cardiac/Vasc Device Or Procedure	11.12	2.6003	Misc Pediatric	Circulatory Adult
385	207-1	Other Circulatory System Diagnoses	2.4	0.4808	Misc Pediatric	Circulatory Adult
386	207-2	Other Circulatory System Diagnoses	3.3	0.6487	Misc Pediatric	Circulatory Adult
387	207-3	Other Circulatory System Diagnoses	4.79	0.9192	Misc Pediatric	Circulatory Adult
388	207-4	Other Circulatory System Diagnoses	8	1.7556	Misc Pediatric	Circulatory Adult
389	220-1	Major Stomach, Esophageal & Duodenal Procedures	4.22	1.2879	Misc Pediatric	Gastroent Adult
390	220-2	Major Stomach, Esophageal & Duodenal Procedures	7.81	2.0751	Misc Pediatric	Gastroent Adult
391	220-3	Major Stomach, Esophageal & Duodenal Procedures	12.55	3.3115	Misc Pediatric	Gastroent Adult
392	220-4	Major Stomach, Esophageal & Duodenal Procedures	21.63	6.8651	Misc Pediatric	Gastroent Adult
393	221-1	Major Small & Large Bowel Procedures	5.06	1.2997	Misc Pediatric	Gastroent Adult
394	221-2	Major Small & Large Bowel Procedures	7.26	1.7161	Misc Pediatric	Gastroent Adult
395	221-3	Major Small & Large Bowel Procedures	12.08	2.7842	Misc Pediatric	Gastroent Adult
396	221-4	Major Small & Large Bowel Procedures	20.12	5.9893	Misc Pediatric	Gastroent Adult
397	222-1	Other Stomach, Esophageal & Duodenal Procedures	2.31	0.7741	Misc Pediatric	Gastroent Adult
398	222-2	Other Stomach, Esophageal & Duodenal Procedures	3.65	1.1806	Misc Pediatric	Gastroent Adult
399	222-3	Other Stomach, Esophageal & Duodenal Procedures	9.06	2.2808	Misc Pediatric	Gastroent Adult
400	222-4	Other Stomach, Esophageal & Duodenal Procedures	18.24	5.2195	Misc Pediatric	Gastroent Adult
401	223-1	Other Small & Large Bowel Procedures	4.58	1.0199	Misc Pediatric	Gastroent Adult
402	223-2	Other Small & Large Bowel Procedures	6.55	1.3623	Misc Pediatric	Gastroent Adult
403	223-3	Other Small & Large Bowel Procedures	10.81	2.3186	Misc Pediatric	Gastroent Adult
404	223-4	Other Small & Large Bowel Procedures	18.55	5.2	Misc Pediatric	Gastroent Adult

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APR DRGs and Medicaid Care Categories

Count	APR DRG	APR DRG Description	ALOS	Relative Weight	MCC Pediatric	MCC Adult
405	224-1	Peritoneal Adhesiolysis	5.3	1.1238	Misc Pediatric	Gastroent Adult
406	224-2	Peritoneal Adhesiolysis	7.88	1.576	Misc Pediatric	Gastroent Adult
407	224-3	Peritoneal Adhesiolysis	11.42	2.3758	Misc Pediatric	Gastroent Adult
408	224-4	Peritoneal Adhesiolysis	17.66	4.7698	Misc Pediatric	Gastroent Adult
409	225-1	Appendectomy	1.59	0.7742	Misc Pediatric	Gastroent Adult
410	225-2	Appendectomy	3.69	1.0415	Misc Pediatric	Gastroent Adult
411	225-3	Appendectomy	6.97	1.7446	Misc Pediatric	Gastroent Adult
412	225-4	Appendectomy	12.73	3.6584	Misc Pediatric	Gastroent Adult
413	226-1	Anal Procedures	2.52	0.5958	Misc Pediatric	Gastroent Adult
414	226-2	Anal Procedures	3.91	0.8018	Misc Pediatric	Gastroent Adult
415	226-3	Anal Procedures	6.71	1.3697	Misc Pediatric	Gastroent Adult
416	226-4	Anal Procedures	14.52	3.3355	Misc Pediatric	Gastroent Adult
417	227-1	Hernia Procedures Except Inguinal, Femoral & Umbilical	2.82	0.8991	Misc Pediatric	Gastroent Adult
418	227-2	Hernia Procedures Except Inguinal, Femoral & Umbilical	4.22	1.1383	Misc Pediatric	Gastroent Adult
419	227-3	Hernia Procedures Except Inguinal, Femoral & Umbilical	7.59	1.8936	Misc Pediatric	Gastroent Adult
420	227-4	Hernia Procedures Except Inguinal, Femoral & Umbilical	14.26	4.0692	Misc Pediatric	Gastroent Adult
421	228-1	Inguinal, Femoral & Umbilical Hernia Procedures	1.97	0.6807	Misc Pediatric	Gastroent Adult
422	228-2	Inguinal, Femoral & Umbilical Hernia Procedures	3.29	0.885	Misc Pediatric	Gastroent Adult
423	228-3	Inguinal, Femoral & Umbilical Hernia Procedures	6.12	1.4347	Misc Pediatric	Gastroent Adult
424	228-4	Inguinal, Femoral & Umbilical Hernia Procedures	13.81	3.4992	Misc Pediatric	Gastroent Adult
425	229-1	Other Digestive System & Abdominal Procedures	3.82	1.0251	Misc Pediatric	Gastroent Adult
426	229-2	Other Digestive System & Abdominal Procedures	5.72	1.4737	Misc Pediatric	Gastroent Adult
427	229-3	Other Digestive System & Abdominal Procedures	9.47	2.359	Misc Pediatric	Gastroent Adult
428	229-4	Other Digestive System & Abdominal Procedures	16.97	4.8932	Misc Pediatric	Gastroent Adult
429	240-1	Digestive Malignancy	3.48	0.6441	Misc Pediatric	Gastroent Adult
430	240-2	Digestive Malignancy	4.49	0.7951	Misc Pediatric	Gastroent Adult
431	240-3	Digestive Malignancy	7.05	1.2832	Misc Pediatric	Gastroent Adult
432	240-4	Digestive Malignancy	11.31	2.4775	Misc Pediatric	Gastroent Adult

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APR DRGs and Medicaid Care Categories

Count	APR DRG	APR DRG Description	ALOS	Relative Weight	MCC Pediatric	MCC Adult
433	241-1	Peptic Ulcer & Gastritis	2.51	0.5318	Misc Pediatric	Gastroent Adult
434	241-2	Peptic Ulcer & Gastritis	3.26	0.6692	Misc Pediatric	Gastroent Adult
435	241-3	Peptic Ulcer & Gastritis	4.75	0.9751	Misc Pediatric	Gastroent Adult
436	241-4	Peptic Ulcer & Gastritis	9.2	2.1547	Misc Pediatric	Gastroent Adult
437	242-1	Major Esophageal Disorders	2.22	0.4899	Misc Pediatric	Gastroent Adult
438	242-2	Major Esophageal Disorders	3.27	0.6823	Misc Pediatric	Gastroent Adult
439	242-3	Major Esophageal Disorders	4.59	0.9949	Misc Pediatric	Gastroent Adult
440	242-4	Major Esophageal Disorders	9.69	2.3027	Misc Pediatric	Gastroent Adult
441	243-1	Other Esophageal Disorders	1.9	0.4707	Misc Pediatric	Gastroent Adult
442	243-2	Other Esophageal Disorders	2.82	0.5876	Misc Pediatric	Gastroent Adult
443	243-3	Other Esophageal Disorders	4.6	0.8555	Misc Pediatric	Gastroent Adult
444	243-4	Other Esophageal Disorders	9.2	1.9692	Misc Pediatric	Gastroent Adult
445	244-1	Diverticulitis & Diverticulosis	2.95	0.5129	Misc Pediatric	Gastroent Adult
446	244-2	Diverticulitis & Diverticulosis	3.67	0.6286	Misc Pediatric	Gastroent Adult
447	244-3	Diverticulitis & Diverticulosis	5.19	0.9086	Misc Pediatric	Gastroent Adult
448	244-4	Diverticulitis & Diverticulosis	9.51	1.9066	Misc Pediatric	Gastroent Adult
449	245-1	Inflammatory Bowel Disease	3.34	0.5794	Misc Pediatric	Gastroent Adult
450	245-2	Inflammatory Bowel Disease	4.26	0.7206	Misc Pediatric	Gastroent Adult
451	245-3	Inflammatory Bowel Disease	6.25	1.0469	Misc Pediatric	Gastroent Adult
452	245-4	Inflammatory Bowel Disease	11.59	2.005	Misc Pediatric	Gastroent Adult
453	246-1	Gastrointestinal Vascular Insufficiency	3.17	0.626	Misc Pediatric	Gastroent Adult
454	246-2	Gastrointestinal Vascular Insufficiency	4.04	0.7517	Misc Pediatric	Gastroent Adult
455	246-3	Gastrointestinal Vascular Insufficiency	5.83	1.1018	Misc Pediatric	Gastroent Adult
456	246-4	Gastrointestinal Vascular Insufficiency	9.22	2.1788	Misc Pediatric	Gastroent Adult
457	247-1	Intestinal Obstruction	2.85	0.4723	Misc Pediatric	Gastroent Adult
458	247-2	Intestinal Obstruction	3.81	0.6013	Misc Pediatric	Gastroent Adult
459	247-3	Intestinal Obstruction	5.68	0.9152	Misc Pediatric	Gastroent Adult
460	247-4	Intestinal Obstruction	10.16	2.1051	Misc Pediatric	Gastroent Adult

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APR DRGs and Medicaid Care Categories

Count	APR DRG	APR DRG Description	ALOS	Relative Weight	MCC Pediatric	MCC Adult
461	248-1	Major Gastrointestinal & Peritoneal Infections	3.25	0.4762	Misc Pediatric	Gastroent Adult
462	248-2	Major Gastrointestinal & Peritoneal Infections	4.81	0.7434	Misc Pediatric	Gastroent Adult
463	248-3	Major Gastrointestinal & Peritoneal Infections	6.88	1.073	Misc Pediatric	Gastroent Adult
464	248-4	Major Gastrointestinal & Peritoneal Infections	11.46	2.2673	Misc Pediatric	Gastroent Adult
465	249-1	Non-Bacterial Gastroenteritis, Nausea & Vomiting	2.09	0.3386	Misc Pediatric	Gastroent Adult
466	249-2	Non-Bacterial Gastroenteritis, Nausea & Vomiting	2.85	0.4698	Misc Pediatric	Gastroent Adult
467	249-3	Non-Bacterial Gastroenteritis, Nausea & Vomiting	4.06	0.6564	Misc Pediatric	Gastroent Adult
468	249-4	Non-Bacterial Gastroenteritis, Nausea & Vomiting	7.9	1.428	Misc Pediatric	Gastroent Adult
469	251-1	Abdominal Pain	2.16	0.4643	Misc Pediatric	Gastroent Adult
470	251-2	Abdominal Pain	2.9	0.5784	Misc Pediatric	Gastroent Adult
471	251-3	Abdominal Pain	4.01	0.7696	Misc Pediatric	Gastroent Adult
472	251-4	Abdominal Pain	7.43	1.2682	Misc Pediatric	Gastroent Adult
473	252-1	Malfunction, Reaction & Complication Of Gi Device Or Procedure	3.21	0.4917	Misc Pediatric	Gastroent Adult
474	252-2	Malfunction, Reaction & Complication Of Gi Device Or Procedure	4.04	0.6628	Misc Pediatric	Gastroent Adult
475	252-3	Malfunction, Reaction & Complication Of Gi Device Or Procedure	6.19	1.0706	Misc Pediatric	Gastroent Adult
476	252-4	Malfunction, Reaction & Complication Of Gi Device Or Procedure	12.33	2.4112	Misc Pediatric	Gastroent Adult
477	253-1	Other & Unspecified Gastrointestinal Hemorrhage	2.48	0.5014	Misc Pediatric	Gastroent Adult
478	253-2	Other & Unspecified Gastrointestinal Hemorrhage	3.35	0.6374	Misc Pediatric	Gastroent Adult
479	253-3	Other & Unspecified Gastrointestinal Hemorrhage	4.8	0.9206	Misc Pediatric	Gastroent Adult
480	253-4	Other & Unspecified Gastrointestinal Hemorrhage	8.21	1.9708	Misc Pediatric	Gastroent Adult
481	254-1	Other Digestive System Diagnoses	2.49	0.4648	Misc Pediatric	Gastroent Adult
482	254-2	Other Digestive System Diagnoses	3.51	0.6201	Misc Pediatric	Gastroent Adult
483	254-3	Other Digestive System Diagnoses	5.12	0.9019	Misc Pediatric	Gastroent Adult
484	254-4	Other Digestive System Diagnoses	9.84	2.0579	Misc Pediatric	Gastroent Adult
485	260-1	Major Pancreas, Liver & Shunt Procedures	4.84	1.5915	Misc Pediatric	Gastroent Adult
486	260-2	Major Pancreas, Liver & Shunt Procedures	6.35	2.137	Misc Pediatric	Gastroent Adult
487	260-3	Major Pancreas, Liver & Shunt Procedures	11.03	3.4759	Misc Pediatric	Gastroent Adult
488	260-4	Major Pancreas, Liver & Shunt Procedures	22.09	8.0251	Misc Pediatric	Gastroent Adult

Appendix A

APR DRGs and Medicaid Care Categories

Count	APR DRG	APR DRG Description	ALOS	Relative Weight	MCC Pediatric	MCC Adult
489	261-1	Major Biliary Tract Procedures	4.91	1.2324	Misc Pediatric	Gastroent Adult
490	261-2	Major Biliary Tract Procedures	7.49	1.8972	Misc Pediatric	Gastroent Adult
491	261-3	Major Biliary Tract Procedures	11	2.7669	Misc Pediatric	Gastroent Adult
492	261-4	Major Biliary Tract Procedures	17.75	4.6897	Misc Pediatric	Gastroent Adult
493	262-1	Cholecystectomy Except Laparoscopic	4.15	1.089	Misc Pediatric	Gastroent Adult
494	262-2	Cholecystectomy Except Laparoscopic	5.76	1.411	Misc Pediatric	Gastroent Adult
495	262-3	Cholecystectomy Except Laparoscopic	9.09	2.2306	Misc Pediatric	Gastroent Adult
496	262-4	Cholecystectomy Except Laparoscopic	16.07	4.5253	Misc Pediatric	Gastroent Adult
497	263-1	Laparoscopic Cholecystectomy	2.36	0.8877	Misc Pediatric	Gastroent Adult
498	263-2	Laparoscopic Cholecystectomy	3.63	1.1404	Misc Pediatric	Gastroent Adult
499	263-3	Laparoscopic Cholecystectomy	6.26	1.6278	Misc Pediatric	Gastroent Adult
500	263-4	Laparoscopic Cholecystectomy	12.84	3.3746	Misc Pediatric	Gastroent Adult
501	264-1	Other Hepatobiliary, Pancreas & Abdominal Procedures	4.59	1.364	Misc Pediatric	Gastroent Adult
502	264-2	Other Hepatobiliary, Pancreas & Abdominal Procedures	5.72	1.5359	Misc Pediatric	Gastroent Adult
503	264-3	Other Hepatobiliary, Pancreas & Abdominal Procedures	10.86	2.553	Misc Pediatric	Gastroent Adult
504	264-4	Other Hepatobiliary, Pancreas & Abdominal Procedures	21.28	6.5094	Misc Pediatric	Gastroent Adult
505	279-1	Hepatic Coma & Other Major Acute Liver Disorders	2.9	0.4871	Misc Pediatric	Gastroent Adult
506	279-2	Hepatic Coma & Other Major Acute Liver Disorders	3.76	0.6734	Misc Pediatric	Gastroent Adult
507	279-3	Hepatic Coma & Other Major Acute Liver Disorders	5.72	1.064	Misc Pediatric	Gastroent Adult
508	279-4	Hepatic Coma & Other Major Acute Liver Disorders	10.89	2.8994	Misc Pediatric	Gastroent Adult
509	280-1	Alcoholic Liver Disease	2.96	0.4993	Misc Pediatric	Gastroent Adult
510	280-2	Alcoholic Liver Disease	3.55	0.6445	Misc Pediatric	Gastroent Adult
511	280-3	Alcoholic Liver Disease	5.28	1.003	Misc Pediatric	Gastroent Adult
512	280-4	Alcoholic Liver Disease	10.31	2.5743	Misc Pediatric	Gastroent Adult
513	281-1	Malignancy Of Hepatobiliary System & Pancreas	3.53	0.638	Misc Pediatric	Gastroent Adult
514	281-2	Malignancy Of Hepatobiliary System & Pancreas	4.38	0.8464	Misc Pediatric	Gastroent Adult
515	281-3	Malignancy Of Hepatobiliary System & Pancreas	6.28	1.217	Misc Pediatric	Gastroent Adult
516	281-4	Malignancy Of Hepatobiliary System & Pancreas	9.63	2.2028	Misc Pediatric	Gastroent Adult

Appendix A

APR DRGs and Medicaid Care Categories

Count	APR DRG	APR DRG Description	ALOS	Relative Weight	MCC Pediatric	MCC Adult
517	282-1	Disorders Of Pancreas Except Malignancy	3.25	0.5495	Misc Pediatric	Gastroent Adult
518	282-2	Disorders Of Pancreas Except Malignancy	4.1	0.6964	Misc Pediatric	Gastroent Adult
519	282-3	Disorders Of Pancreas Except Malignancy	6.15	1.0887	Misc Pediatric	Gastroent Adult
520	282-4	Disorders Of Pancreas Except Malignancy	12.32	2.9056	Misc Pediatric	Gastroent Adult
521	283-1	Other Disorders Of The Liver	2.66	0.446	Misc Pediatric	Gastroent Adult
522	283-2	Other Disorders Of The Liver	3.47	0.6667	Misc Pediatric	Gastroent Adult
523	283-3	Other Disorders Of The Liver	4.99	0.9575	Misc Pediatric	Gastroent Adult
524	283-4	Other Disorders Of The Liver	9.32	2.238	Misc Pediatric	Gastroent Adult
525	284-1	Disorders Of Gallbladder & Biliary Tract	2.38	0.5404	Misc Pediatric	Gastroent Adult
526	284-2	Disorders Of Gallbladder & Biliary Tract	3.48	0.7439	Misc Pediatric	Gastroent Adult
527	284-3	Disorders Of Gallbladder & Biliary Tract	5.27	1.0638	Misc Pediatric	Gastroent Adult
528	284-4	Disorders Of Gallbladder & Biliary Tract	9.48	2.141	Misc Pediatric	Gastroent Adult
529	301-1	Hip Joint Replacement	3.78	1.5528	Misc Pediatric	Misc Adult
530	301-2	Hip Joint Replacement	4.14	1.706	Misc Pediatric	Misc Adult
531	301-3	Hip Joint Replacement	5.35	2.1999	Misc Pediatric	Misc Adult
532	301-4	Hip Joint Replacement	12.23	3.5956	Misc Pediatric	Misc Adult
533	302-1	Knee Joint Replacement	3.08	1.4927	Misc Pediatric	Misc Adult
534	302-2	Knee Joint Replacement	3.48	1.6446	Misc Pediatric	Misc Adult
535	302-3	Knee Joint Replacement	5.02	2.021	Misc Pediatric	Misc Adult
536	302-4	Knee Joint Replacement	11.12	4.031	Misc Pediatric	Misc Adult
537	303-1	Dorsal & Lumbar Fusion Proc For Curvature Of Back	4.52	4.5829	Misc Pediatric	Misc Adult
538	303-2	Dorsal & Lumbar Fusion Proc For Curvature Of Back	5.44	5.2722	Misc Pediatric	Misc Adult
539	303-3	Dorsal & Lumbar Fusion Proc For Curvature Of Back	8.26	7.7641	Misc Pediatric	Misc Adult
540	303-4	Dorsal & Lumbar Fusion Proc For Curvature Of Back	16.88	11.0358	Misc Pediatric	Misc Adult
541	304-1	Dorsal & Lumbar Fusion Proc Except For Curvature Of Back	3.09	2.7974	Misc Pediatric	Misc Adult
542	304-2	Dorsal & Lumbar Fusion Proc Except For Curvature Of Back	3.98	3.2151	Misc Pediatric	Misc Adult
543	304-3	Dorsal & Lumbar Fusion Proc Except For Curvature Of Back	7.05	4.8255	Misc Pediatric	Misc Adult
544	304-4	Dorsal & Lumbar Fusion Proc Except For Curvature Of Back	16.85	8.7732	Misc Pediatric	Misc Adult

Appendix A

APR DRGs and Medicaid Care Categories

Count	APR DRG	APR DRG Description	ALOS	Relative Weight	MCC Pediatric	MCC Adult
545	305-1	Amputation Of Lower Limb Except Toes	4.93	0.9049	Misc Pediatric	Misc Adult
546	305-2	Amputation Of Lower Limb Except Toes	7.05	1.2724	Misc Pediatric	Misc Adult
547	305-3	Amputation Of Lower Limb Except Toes	10.44	1.9584	Misc Pediatric	Misc Adult
548	305-4	Amputation Of Lower Limb Except Toes	18.51	4.1712	Misc Pediatric	Misc Adult
549	308-1	Hip & Femur Procedures For Trauma Except Joint Replacement	4.05	1.0881	Misc Pediatric	Misc Adult
550	308-2	Hip & Femur Procedures For Trauma Except Joint Replacement	4.92	1.3341	Misc Pediatric	Misc Adult
551	308-3	Hip & Femur Procedures For Trauma Except Joint Replacement	6.68	1.7962	Misc Pediatric	Misc Adult
552	308-4	Hip & Femur Procedures For Trauma Except Joint Replacement	12.08	3.3457	Misc Pediatric	Misc Adult
553	309-1	Hip & Femur Procedures For Non-Trauma Except Joint Replacement	2.8	1.1802	Misc Pediatric	Misc Adult
554	309-2	Hip & Femur Procedures For Non-Trauma Except Joint Replacement	4.95	1.5608	Misc Pediatric	Misc Adult
555	309-3	Hip & Femur Procedures For Non-Trauma Except Joint Replacement	9.19	2.3335	Misc Pediatric	Misc Adult
556	309-4	Hip & Femur Procedures For Non-Trauma Except Joint Replacement	17.64	4.5592	Misc Pediatric	Misc Adult
557	310-1	Intervertebral Disc Excision & Decompression	1.72	0.8197	Misc Pediatric	Misc Adult
558	310-2	Intervertebral Disc Excision & Decompression	2.66	1.0277	Misc Pediatric	Misc Adult
559	310-3	Intervertebral Disc Excision & Decompression	5.58	1.5338	Misc Pediatric	Misc Adult
560	310-4	Intervertebral Disc Excision & Decompression	14.17	3.4593	Misc Pediatric	Misc Adult
561	312-1	Skin Graft, Except Hand, For Musculoskeletal & Connective Tissue Diagnoses	4.9	1.2944	Misc Pediatric	Misc Adult
562	312-2	Skin Graft, Except Hand, For Musculoskeletal & Connective Tissue Diagnoses	8.44	2.0783	Misc Pediatric	Misc Adult
563	312-3	Skin Graft, Except Hand, For Musculoskeletal & Connective Tissue Diagnoses	18.34	3.8563	Misc Pediatric	Misc Adult
564	312-4	Skin Graft, Except Hand, For Musculoskeletal & Connective Tissue Diagnoses	34.28	8.7451	Misc Pediatric	Misc Adult
565	313-1	Knee & Lower Leg Procedures Except Foot	2.54	0.9709	Misc Pediatric	Misc Adult
566	313-2	Knee & Lower Leg Procedures Except Foot	4.25	1.3686	Misc Pediatric	Misc Adult
567	313-3	Knee & Lower Leg Procedures Except Foot	7.6	2.122	Misc Pediatric	Misc Adult
568	313-4	Knee & Lower Leg Procedures Except Foot	15.93	4.4039	Misc Pediatric	Misc Adult
569	314-1	Foot & Toe Procedures	2.24	0.8771	Misc Pediatric	Misc Adult
570	314-2	Foot & Toe Procedures	4.73	1.0647	Misc Pediatric	Misc Adult
571	314-3	Foot & Toe Procedures	7.77	1.5039	Misc Pediatric	Misc Adult
572	314-4	Foot & Toe Procedures	14.47	3.2049	Misc Pediatric	Misc Adult

Appendix A

APR DRGs and Medicaid Care Categories

Count	APR DRG	APR DRG Description	ALOS	Relative Weight	MCC Pediatric	MCC Adult
573	315-1	Shoulder, Upper Arm & Forearm Procedures	1.79	0.8267	Misc Pediatric	Misc Adult
574	315-2	Shoulder, Upper Arm & Forearm Procedures	2.74	1.3781	Misc Pediatric	Misc Adult
575	315-3	Shoulder, Upper Arm & Forearm Procedures	6.29	2.0162	Misc Pediatric	Misc Adult
576	315-4	Shoulder, Upper Arm & Forearm Procedures	13.66	4.2012	Misc Pediatric	Misc Adult
577	316-1	Hand & Wrist Procedures	2.08	0.6911	Misc Pediatric	Misc Adult
578	316-2	Hand & Wrist Procedures	3.75	0.992	Misc Pediatric	Misc Adult
579	316-3	Hand & Wrist Procedures	6.78	1.5833	Misc Pediatric	Misc Adult
580	316-4	Hand & Wrist Procedures	13.37	3.2026	Misc Pediatric	Misc Adult
581	317-1	Tendon, Muscle & Other Soft Tissue Procedures	2.88	0.78	Misc Pediatric	Misc Adult
582	317-2	Tendon, Muscle & Other Soft Tissue Procedures	5.21	1.1542	Misc Pediatric	Misc Adult
583	317-3	Tendon, Muscle & Other Soft Tissue Procedures	9.42	2.0924	Misc Pediatric	Misc Adult
584	317-4	Tendon, Muscle & Other Soft Tissue Procedures	18.14	4.8995	Misc Pediatric	Misc Adult
585	320-1	Other Musculoskeletal System & Connective Tissue Procedures	2.17	0.8786	Misc Pediatric	Misc Adult
586	320-2	Other Musculoskeletal System & Connective Tissue Procedures	4.59	1.3183	Misc Pediatric	Misc Adult
587	320-3	Other Musculoskeletal System & Connective Tissue Procedures	8.52	2.0267	Misc Pediatric	Misc Adult
588	320-4	Other Musculoskeletal System & Connective Tissue Procedures	16.51	4.6167	Misc Pediatric	Misc Adult
589	321-1	Cervical Spinal Fusion & Other Back/Neck Proc Exc Disc Excis/Decomp	1.69	1.5692	Misc Pediatric	Misc Adult
590	321-2	Cervical Spinal Fusion & Other Back/Neck Proc Exc Disc Excis/Decomp	2.94	1.9839	Misc Pediatric	Misc Adult
591	321-3	Cervical Spinal Fusion & Other Back/Neck Proc Exc Disc Excis/Decomp	7.94	3.3695	Misc Pediatric	Misc Adult
592	321-4	Cervical Spinal Fusion & Other Back/Neck Proc Exc Disc Excis/Decomp	17.77	6.3182	Misc Pediatric	Misc Adult
593	340-1	Fracture Of Femur	3.24	0.4346	Misc Pediatric	Misc Adult
594	340-2	Fracture Of Femur	3.86	0.5104	Misc Pediatric	Misc Adult
595	340-3	Fracture Of Femur	5.25	0.7451	Misc Pediatric	Misc Adult
596	340-4	Fracture Of Femur	7.7	1.657	Misc Pediatric	Misc Adult
597	341-1	Fracture Of Pelvis Or Dislocation Of Hip	3.12	0.4444	Misc Pediatric	Misc Adult
598	341-2	Fracture Of Pelvis Or Dislocation Of Hip	3.77	0.5393	Misc Pediatric	Misc Adult
599	341-3	Fracture Of Pelvis Or Dislocation Of Hip	4.91	0.723	Misc Pediatric	Misc Adult
600	341-4	Fracture Of Pelvis Or Dislocation Of Hip	9.07	1.7362	Misc Pediatric	Misc Adult

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APR DRGs and Medicaid Care Categories

Count	APR DRG	APR DRG Description	ALOS	Relative Weight	MCC Pediatric	MCC Adult
601	342-1	Fractures & Dislocations Except Femur, Pelvis & Back	2.16	0.4307	Misc Pediatric	Misc Adult
602	342-2	Fractures & Dislocations Except Femur, Pelvis & Back	3.46	0.5761	Misc Pediatric	Misc Adult
603	342-3	Fractures & Dislocations Except Femur, Pelvis & Back	5.06	0.7915	Misc Pediatric	Misc Adult
604	342-4	Fractures & Dislocations Except Femur, Pelvis & Back	9.08	1.8308	Misc Pediatric	Misc Adult
605	343-1	Musculoskeletal Malignancy & Pathol Fracture D/T Muscskel Malig	3.64	0.7042	Misc Pediatric	Misc Adult
606	343-2	Musculoskeletal Malignancy & Pathol Fracture D/T Muscskel Malig	4.78	0.8381	Misc Pediatric	Misc Adult
607	343-3	Musculoskeletal Malignancy & Pathol Fracture D/T Muscskel Malig	7.69	1.357	Misc Pediatric	Misc Adult
608	343-4	Musculoskeletal Malignancy & Pathol Fracture D/T Muscskel Malig	12.25	2.5594	Misc Pediatric	Misc Adult
609	344-1	Osteomyelitis, Septic Arthritis & Other Musculoskeletal Infections	4.09	0.6066	Misc Pediatric	Misc Adult
610	344-2	Osteomyelitis, Septic Arthritis & Other Musculoskeletal Infections	5.95	0.8682	Misc Pediatric	Misc Adult
611	344-3	Osteomyelitis, Septic Arthritis & Other Musculoskeletal Infections	8.58	1.2795	Misc Pediatric	Misc Adult
612	344-4	Osteomyelitis, Septic Arthritis & Other Musculoskeletal Infections	13.87	2.4754	Misc Pediatric	Misc Adult
613	346-1	Connective Tissue Disorders	3.11	0.5823	Misc Pediatric	Misc Adult
614	346-2	Connective Tissue Disorders	4.38	0.819	Misc Pediatric	Misc Adult
615	346-3	Connective Tissue Disorders	6.56	1.2398	Misc Pediatric	Misc Adult
616	346-4	Connective Tissue Disorders	13.8	3.2704	Misc Pediatric	Misc Adult
617	347-1	Other Back & Neck Disorders, Fractures & Injuries	2.96	0.528	Misc Pediatric	Misc Adult
618	347-2	Other Back & Neck Disorders, Fractures & Injuries	3.94	0.6699	Misc Pediatric	Misc Adult
619	347-3	Other Back & Neck Disorders, Fractures & Injuries	5.4	0.9433	Misc Pediatric	Misc Adult
620	347-4	Other Back & Neck Disorders, Fractures & Injuries	10.64	2.1772	Misc Pediatric	Misc Adult
621	349-1	Malfunction, Reaction, Complic Of Orthopedic Device Or Procedure	2.25	0.4182	Misc Pediatric	Misc Adult
622	349-2	Malfunction, Reaction, Complic Of Orthopedic Device Or Procedure	4.26	0.6365	Misc Pediatric	Misc Adult
623	349-3	Malfunction, Reaction, Complic Of Orthopedic Device Or Procedure	6.63	1.0499	Misc Pediatric	Misc Adult
624	349-4	Malfunction, Reaction, Complic Of Orthopedic Device Or Procedure	11.29	2.2059	Misc Pediatric	Misc Adult
625	351-1	Other Musculoskeletal System & Connective Tissue Diagnoses	2.56	0.4521	Misc Pediatric	Misc Adult
626	351-2	Other Musculoskeletal System & Connective Tissue Diagnoses	3.54	0.5578	Misc Pediatric	Misc Adult
627	351-3	Other Musculoskeletal System & Connective Tissue Diagnoses	5.06	0.8465	Misc Pediatric	Misc Adult
628	351-4	Other Musculoskeletal System & Connective Tissue Diagnoses	9.37	1.781	Misc Pediatric	Misc Adult

Appendix A

APR DRGs and Medicaid Care Categories

Count	APR DRG	APR DRG Description	ALOS	Relative Weight	MCC Pediatric	MCC Adult
629	361-1	Skin Graft For Skin & Subcutaneous Tissue Diagnoses	3.77	1.1839	Misc Pediatric	Misc Adult
630	361-2	Skin Graft For Skin & Subcutaneous Tissue Diagnoses	7.32	1.5499	Misc Pediatric	Misc Adult
631	361-3	Skin Graft For Skin & Subcutaneous Tissue Diagnoses	12.86	2.4906	Misc Pediatric	Misc Adult
632	361-4	Skin Graft For Skin & Subcutaneous Tissue Diagnoses	25.33	6.1614	Misc Pediatric	Misc Adult
633	362-1	Mastectomy Procedures	1.83	0.9953	Misc Pediatric	Misc Adult
634	362-2	Mastectomy Procedures	2.3	1.2366	Misc Pediatric	Misc Adult
635	362-3	Mastectomy Procedures	5.57	1.5736	Misc Pediatric	Misc Adult
636	362-4	Mastectomy Procedures	14	3.986	Misc Pediatric	Misc Adult
637	363-1	Breast Procedures Except Mastectomy	1.89	0.9093	Misc Pediatric	Misc Adult
638	363-2	Breast Procedures Except Mastectomy	3.05	1.4731	Misc Pediatric	Misc Adult
639	363-3	Breast Procedures Except Mastectomy	6.02	1.8049	Misc Pediatric	Misc Adult
640	363-4	Breast Procedures Except Mastectomy	17.92	3.1671	Misc Pediatric	Misc Adult
641	364-1	Other Skin, Subcutaneous Tissue & Related Procedures	2.77	0.7759	Misc Pediatric	Misc Adult
642	364-2	Other Skin, Subcutaneous Tissue & Related Procedures	4.99	1.0851	Misc Pediatric	Misc Adult
643	364-3	Other Skin, Subcutaneous Tissue & Related Procedures	9.27	1.7731	Misc Pediatric	Misc Adult
644	364-4	Other Skin, Subcutaneous Tissue & Related Procedures	18.51	4.0085	Misc Pediatric	Misc Adult
645	380-1	Skin Ulcers	3.97	0.5321	Misc Pediatric	Misc Adult
646	380-2	Skin Ulcers	5.08	0.6635	Misc Pediatric	Misc Adult
647	380-3	Skin Ulcers	7.24	0.9697	Misc Pediatric	Misc Adult
648	380-4	Skin Ulcers	12.33	1.9806	Misc Pediatric	Misc Adult
649	381-1	Major Skin Disorders	2.99	0.4468	Misc Pediatric	Misc Adult
650	381-2	Major Skin Disorders	4.17	0.6291	Misc Pediatric	Misc Adult
651	381-3	Major Skin Disorders	6.34	1.0514	Misc Pediatric	Misc Adult
652	381-4	Major Skin Disorders	11.61	3.4517	Misc Pediatric	Misc Adult
653	382-1	Malignant Breast Disorders	2.67	0.4874	Misc Pediatric	Misc Adult
654	382-2	Malignant Breast Disorders	4.16	0.67	Misc Pediatric	Misc Adult
655	382-3	Malignant Breast Disorders	6.69	1.1506	Misc Pediatric	Misc Adult
656	382-4	Malignant Breast Disorders	9.59	1.9687	Misc Pediatric	Misc Adult

Appendix A

APR DRGs and Medicaid Care Categories

Count	APR DRG	APR DRG Description	ALOS	Relative Weight	MCC Pediatric	MCC Adult
657	383-1	Cellulitis & Other Bacterial Skin Infections	3.04	0.4187	Misc Pediatric	Misc Adult
658	383-2	Cellulitis & Other Bacterial Skin Infections	4.18	0.5799	Misc Pediatric	Misc Adult
659	383-3	Cellulitis & Other Bacterial Skin Infections	5.8	0.8538	Misc Pediatric	Misc Adult
660	383-4	Cellulitis & Other Bacterial Skin Infections	10.39	1.8409	Misc Pediatric	Misc Adult
661	384-1	Contusion, Open Wound & Other Trauma To Skin & Subcutaneous Tissue	1.89	0.5138	Misc Pediatric	Misc Adult
662	384-2	Contusion, Open Wound & Other Trauma To Skin & Subcutaneous Tissue	3.04	0.5925	Misc Pediatric	Misc Adult
663	384-3	Contusion, Open Wound & Other Trauma To Skin & Subcutaneous Tissue	4.58	0.8103	Misc Pediatric	Misc Adult
664	384-4	Contusion, Open Wound & Other Trauma To Skin & Subcutaneous Tissue	9.32	1.9284	Misc Pediatric	Misc Adult
665	385-1	Other Skin, Subcutaneous Tissue & Breast Disorders	2.42	0.3742	Misc Pediatric	Misc Adult
666	385-2	Other Skin, Subcutaneous Tissue & Breast Disorders	3.5	0.5249	Misc Pediatric	Misc Adult
667	385-3	Other Skin, Subcutaneous Tissue & Breast Disorders	5.26	0.8096	Misc Pediatric	Misc Adult
668	385-4	Other Skin, Subcutaneous Tissue & Breast Disorders	11.01	1.8404	Misc Pediatric	Misc Adult
669	401-1	Pituitary & Adrenal Procedures	3.08	1.3668	Misc Pediatric	Misc Adult
670	401-2	Pituitary & Adrenal Procedures	4.38	1.8389	Misc Pediatric	Misc Adult
671	401-3	Pituitary & Adrenal Procedures	8.88	3.0998	Misc Pediatric	Misc Adult
672	401-4	Pituitary & Adrenal Procedures	19.47	6.6439	Misc Pediatric	Misc Adult
673	403-1	Procedures For Obesity	1.82	1.2883	Misc Pediatric	Misc Adult
674	403-2	Procedures For Obesity	2.17	1.368	Misc Pediatric	Misc Adult
675	403-3	Procedures For Obesity	4.67	2.1486	Misc Pediatric	Misc Adult
676	403-4	Procedures For Obesity	19.33	6.9257	Misc Pediatric	Misc Adult
677	404-1	Thyroid, Parathyroid & Thyroglossal Procedures	1.35	0.7154	Misc Pediatric	Misc Adult
678	404-2	Thyroid, Parathyroid & Thyroglossal Procedures	2.19	0.9396	Misc Pediatric	Misc Adult
679	404-3	Thyroid, Parathyroid & Thyroglossal Procedures	6.59	1.8983	Misc Pediatric	Misc Adult
680	404-4	Thyroid, Parathyroid & Thyroglossal Procedures	17.69	4.3466	Misc Pediatric	Misc Adult
681	405-1	Other Procedures For Endocrine, Nutritional & Metabolic Disorders	3.28	1.1654	Misc Pediatric	Misc Adult
682	405-2	Other Procedures For Endocrine, Nutritional & Metabolic Disorders	5.6	1.4882	Misc Pediatric	Misc Adult
683	405-3	Other Procedures For Endocrine, Nutritional & Metabolic Disorders	9.8	2.3621	Misc Pediatric	Misc Adult
684	405-4	Other Procedures For Endocrine, Nutritional & Metabolic Disorders	20.96	5.7465	Misc Pediatric	Misc Adult

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APR DRGs and Medicaid Care Categories

Count	APR DRG	APR DRG Description	ALOS	Relative Weight	MCC Pediatric	MCC Adult
685	420-1	Diabetes	2.65	0.3864	Misc Pediatric	Misc Adult
686	420-2	Diabetes	2.8	0.4989	Misc Pediatric	Misc Adult
687	420-3	Diabetes	4.05	0.7344	Misc Pediatric	Misc Adult
688	420-4	Diabetes	7.86	1.7407	Misc Pediatric	Misc Adult
689	421-1	Malnutrition, Failure To Thrive & Other Nutritional Disorders	3.43	0.3568	Misc Pediatric	Misc Adult
690	421-2	Malnutrition, Failure To Thrive & Other Nutritional Disorders	4.45	0.5255	Misc Pediatric	Misc Adult
691	421-3	Malnutrition, Failure To Thrive & Other Nutritional Disorders	6.25	0.8489	Misc Pediatric	Misc Adult
692	421-4	Malnutrition, Failure To Thrive & Other Nutritional Disorders	12.22	1.9776	Misc Pediatric	Misc Adult
693	422-1	Hypovolemia & Related Electrolyte Disorders	2.01	0.2886	Misc Pediatric	Misc Adult
694	422-2	Hypovolemia & Related Electrolyte Disorders	3.09	0.4495	Misc Pediatric	Misc Adult
695	422-3	Hypovolemia & Related Electrolyte Disorders	4.4	0.6519	Misc Pediatric	Misc Adult
696	422-4	Hypovolemia & Related Electrolyte Disorders	8.05	1.4248	Misc Pediatric	Misc Adult
697	423-1	Inborn Errors Of Metabolism	2.51	0.4482	Misc Pediatric	Misc Adult
698	423-2	Inborn Errors Of Metabolism	3.61	0.6968	Misc Pediatric	Misc Adult
699	423-3	Inborn Errors Of Metabolism	6.04	1.145	Misc Pediatric	Misc Adult
700	423-4	Inborn Errors Of Metabolism	12.76	3.4559	Misc Pediatric	Misc Adult
701	424-1	Other Endocrine Disorders	2.51	0.4619	Misc Pediatric	Misc Adult
702	424-2	Other Endocrine Disorders	3.96	0.6757	Misc Pediatric	Misc Adult
703	424-3	Other Endocrine Disorders	5.81	0.9871	Misc Pediatric	Misc Adult
704	424-4	Other Endocrine Disorders	10.29	2.1988	Misc Pediatric	Misc Adult
705	425-1	Electrolyte Disorders Except Hypovolemia Related	2.37	0.3953	Misc Pediatric	Misc Adult
706	425-2	Electrolyte Disorders Except Hypovolemia Related	3.09	0.5014	Misc Pediatric	Misc Adult
707	425-3	Electrolyte Disorders Except Hypovolemia Related	4.29	0.7198	Misc Pediatric	Misc Adult
708	425-4	Electrolyte Disorders Except Hypovolemia Related	8.36	1.6417	Misc Pediatric	Misc Adult
709	440-1	Kidney Transplant	4.75	4.5601	Misc Pediatric	Misc Adult
710	440-2	Kidney Transplant	5.64	4.9933	Misc Pediatric	Misc Adult
711	440-3	Kidney Transplant	8.47	6.2699	Misc Pediatric	Misc Adult
712	440-4	Kidney Transplant	17.02	9.5485	Misc Pediatric	Misc Adult

Appendix A

APR DRGs and Medicaid Care Categories

Count	APR DRG	APR DRG Description	ALOS	Relative Weight	MCC Pediatric	MCC Adult
713	441-1	Major Bladder Procedures	4.86	1.2785	Misc Pediatric	Misc Adult
714	441-2	Major Bladder Procedures	7.51	2.0968	Misc Pediatric	Misc Adult
715	441-3	Major Bladder Procedures	10.16	2.9585	Misc Pediatric	Misc Adult
716	441-4	Major Bladder Procedures	21.18	6.223	Misc Pediatric	Misc Adult
717	442-1	Kidney & Urinary Tract Procedures For Malignancy	3.34	1.2254	Misc Pediatric	Misc Adult
718	442-2	Kidney & Urinary Tract Procedures For Malignancy	4.4	1.4543	Misc Pediatric	Misc Adult
719	442-3	Kidney & Urinary Tract Procedures For Malignancy	7.65	2.2344	Misc Pediatric	Misc Adult
720	442-4	Kidney & Urinary Tract Procedures For Malignancy	15.05	4.3816	Misc Pediatric	Misc Adult
721	443-1	Kidney & Urinary Tract Procedures For Nonmalignancy	2.64	1.0876	Misc Pediatric	Misc Adult
722	443-2	Kidney & Urinary Tract Procedures For Nonmalignancy	3.46	1.2674	Misc Pediatric	Misc Adult
723	443-3	Kidney & Urinary Tract Procedures For Nonmalignancy	7.98	2.056	Misc Pediatric	Misc Adult
724	443-4	Kidney & Urinary Tract Procedures For Nonmalignancy	15.93	4.2532	Misc Pediatric	Misc Adult
725	444-1	Renal Dialysis Access Device Procedure Only	2.55	0.9196	Misc Pediatric	Misc Adult
726	444-2	Renal Dialysis Access Device Procedure Only	4.25	1.2659	Misc Pediatric	Misc Adult
727	444-3	Renal Dialysis Access Device Procedure Only	9.17	2.2368	Misc Pediatric	Misc Adult
728	444-4	Renal Dialysis Access Device Procedure Only	16.99	4.3728	Misc Pediatric	Misc Adult
729	445-1	Other Bladder Procedures	1.95	0.7561	Misc Pediatric	Misc Adult
730	445-2	Other Bladder Procedures	3.04	1.1132	Misc Pediatric	Misc Adult
731	445-3	Other Bladder Procedures	7.61	1.5669	Misc Pediatric	Misc Adult
732	445-4	Other Bladder Procedures	15.15	3.7171	Misc Pediatric	Misc Adult
733	446-1	Urethral & Transurethral Procedures	1.81	0.6175	Misc Pediatric	Misc Adult
734	446-2	Urethral & Transurethral Procedures	2.58	0.7911	Misc Pediatric	Misc Adult
735	446-3	Urethral & Transurethral Procedures	5.87	1.3282	Misc Pediatric	Misc Adult
736	446-4	Urethral & Transurethral Procedures	12.31	2.7421	Misc Pediatric	Misc Adult
737	447-1	Other Kidney, Urinary Tract & Related Procedures	1.88	1.1717	Misc Pediatric	Misc Adult
738	447-2	Other Kidney, Urinary Tract & Related Procedures	3.31	1.339	Misc Pediatric	Misc Adult
739	447-3	Other Kidney, Urinary Tract & Related Procedures	7.11	2.0407	Misc Pediatric	Misc Adult
740	447-4	Other Kidney, Urinary Tract & Related Procedures	18.87	5.4004	Misc Pediatric	Misc Adult

Appendix A

APR DRGs and Medicaid Care Categories

Count	APR DRG	APR DRG Description	ALOS	Relative Weight	MCC Pediatric	MCC Adult
741	460-1	Renal Failure	3.05	0.5423	Misc Pediatric	Misc Adult
742	460-2	Renal Failure	3.72	0.6674	Misc Pediatric	Misc Adult
743	460-3	Renal Failure	5.14	0.8458	Misc Pediatric	Misc Adult
744	460-4	Renal Failure	10.63	2.1951	Misc Pediatric	Misc Adult
745	461-1	Kidney & Urinary Tract Malignancy	3.15	0.536	Misc Pediatric	Misc Adult
746	461-2	Kidney & Urinary Tract Malignancy	3.9	0.6657	Misc Pediatric	Misc Adult
747	461-3	Kidney & Urinary Tract Malignancy	6.07	1.015	Misc Pediatric	Misc Adult
748	461-4	Kidney & Urinary Tract Malignancy	10.16	1.9782	Misc Pediatric	Misc Adult
749	462-1	Nephritis & Nephrosis	2.49	0.4108	Misc Pediatric	Misc Adult
750	462-2	Nephritis & Nephrosis	3.72	0.5763	Misc Pediatric	Misc Adult
751	462-3	Nephritis & Nephrosis	6.36	1.0592	Misc Pediatric	Misc Adult
752	462-4	Nephritis & Nephrosis	13.15	2.7278	Misc Pediatric	Misc Adult
753	463-1	Kidney & Urinary Tract Infections	2.65	0.4007	Misc Pediatric	Misc Adult
754	463-2	Kidney & Urinary Tract Infections	3.5	0.5253	Misc Pediatric	Misc Adult
755	463-3	Kidney & Urinary Tract Infections	4.93	0.7423	Misc Pediatric	Misc Adult
756	463-4	Kidney & Urinary Tract Infections	8.24	1.3996	Misc Pediatric	Misc Adult
757	465-1	Urinary Stones & Acquired Upper Urinary Tract Obstruction	1.66	0.4185	Misc Pediatric	Misc Adult
758	465-2	Urinary Stones & Acquired Upper Urinary Tract Obstruction	2.05	0.5395	Misc Pediatric	Misc Adult
759	465-3	Urinary Stones & Acquired Upper Urinary Tract Obstruction	3.65	0.8306	Misc Pediatric	Misc Adult
760	465-4	Urinary Stones & Acquired Upper Urinary Tract Obstruction	7.33	1.5564	Misc Pediatric	Misc Adult
761	466-1	Malfunction, Reaction, Complic Of Genitourinary Device Or Proc	2.02	0.3599	Misc Pediatric	Misc Adult
762	466-2	Malfunction, Reaction, Complic Of Genitourinary Device Or Proc	3.26	0.5993	Misc Pediatric	Misc Adult
763	466-3	Malfunction, Reaction, Complic Of Genitourinary Device Or Proc	5.07	0.9975	Misc Pediatric	Misc Adult
764	466-4	Malfunction, Reaction, Complic Of Genitourinary Device Or Proc	9.24	1.9799	Misc Pediatric	Misc Adult
765	468-1	Other Kidney & Urinary Tract Diagnoses, Signs & Symptoms	2.51	0.4709	Misc Pediatric	Misc Adult
766	468-2	Other Kidney & Urinary Tract Diagnoses, Signs & Symptoms	3.36	0.6161	Misc Pediatric	Misc Adult
767	468-3	Other Kidney & Urinary Tract Diagnoses, Signs & Symptoms	5.08	0.8912	Misc Pediatric	Misc Adult
768	468-4	Other Kidney & Urinary Tract Diagnoses, Signs & Symptoms	10.47	2.0992	Misc Pediatric	Misc Adult

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APR DRGs and Medicaid Care Categories

Count	APR DRG	APR DRG Description	ALOS	Relative Weight	MCC Pediatric	MCC Adult
769	480-1	Major Male Pelvic Procedures	1.85	1.1445	Misc Pediatric	Misc Adult
770	480-2	Major Male Pelvic Procedures	2.5	1.2654	Misc Pediatric	Misc Adult
771	480-3	Major Male Pelvic Procedures	5.58	2.0227	Misc Pediatric	Misc Adult
772	480-4	Major Male Pelvic Procedures	14.36	4.225	Misc Pediatric	Misc Adult
773	481-1	Penis Procedures	2.26	0.6787	Misc Pediatric	Misc Adult
774	481-2	Penis Procedures	2.6	1.2129	Misc Pediatric	Misc Adult
775	481-3	Penis Procedures	7.21	1.5778	Misc Pediatric	Misc Adult
776	481-4	Penis Procedures	16.23	4.346	Misc Pediatric	Misc Adult
777	482-1	Transurethral Prostatectomy	1.74	0.5453	Misc Pediatric	Misc Adult
778	482-2	Transurethral Prostatectomy	2.51	0.6558	Misc Pediatric	Misc Adult
779	482-3	Transurethral Prostatectomy	5.87	1.1889	Misc Pediatric	Misc Adult
780	482-4	Transurethral Prostatectomy	11.76	2.7878	Misc Pediatric	Misc Adult
781	483-1	Testes & Scrotal Procedures	1.87	0.6024	Misc Pediatric	Misc Adult
782	483-2	Testes & Scrotal Procedures	5.04	1.1728	Misc Pediatric	Misc Adult
783	483-3	Testes & Scrotal Procedures	9.3	2.062	Misc Pediatric	Misc Adult
784	483-4	Testes & Scrotal Procedures	18.49	4.1634	Misc Pediatric	Misc Adult
785	484-1	Other Male Reproductive System & Related Procedures	2.12	0.7511	Misc Pediatric	Misc Adult
786	484-2	Other Male Reproductive System & Related Procedures	2.24	1.1823	Misc Pediatric	Misc Adult
787	484-3	Other Male Reproductive System & Related Procedures	5.12	1.4187	Misc Pediatric	Misc Adult
788	484-4	Other Male Reproductive System & Related Procedures	14.87	2.7384	Misc Pediatric	Misc Adult
789	500-1	Malignancy, Male Reproductive System	2.71	0.4156	Misc Pediatric	Misc Adult
790	500-2	Malignancy, Male Reproductive System	4.23	0.6549	Misc Pediatric	Misc Adult
791	500-3	Malignancy, Male Reproductive System	5.98	0.9383	Misc Pediatric	Misc Adult
792	500-4	Malignancy, Male Reproductive System	9.22	1.7632	Misc Pediatric	Misc Adult
793	501-1	Male Reproductive System Diagnoses Except Malignancy	2.52	0.4051	Misc Pediatric	Misc Adult
794	501-2	Male Reproductive System Diagnoses Except Malignancy	3.56	0.5569	Misc Pediatric	Misc Adult
795	501-3	Male Reproductive System Diagnoses Except Malignancy	5.01	0.8034	Misc Pediatric	Misc Adult
796	501-4	Male Reproductive System Diagnoses Except Malignancy	8.5	1.4816	Misc Pediatric	Misc Adult

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APR DRGs and Medicaid Care Categories

Count	APR DRG	APR DRG Description	ALOS	Relative Weight	MCC Pediatric	MCC Adult
797	510-1	Pelvic Evisceration, Radical Hysterectomy & Other Radical Gyn Procs	2.67	1.1622	Misc Pediatric	Misc Adult
798	510-2	Pelvic Evisceration, Radical Hysterectomy & Other Radical Gyn Procs	4.01	1.429	Misc Pediatric	Misc Adult
799	510-3	Pelvic Evisceration, Radical Hysterectomy & Other Radical Gyn Procs	8.68	2.5703	Misc Pediatric	Misc Adult
800	510-4	Pelvic Evisceration, Radical Hysterectomy & Other Radical Gyn Procs	18.15	6.3525	Misc Pediatric	Misc Adult
801	511-1	Uterine & Adnexa Procedures For Ovarian & Adnexal Malignancy	3.42	1.1522	Misc Pediatric	Misc Adult
802	511-2	Uterine & Adnexa Procedures For Ovarian & Adnexal Malignancy	4.99	1.4649	Misc Pediatric	Misc Adult
803	511-3	Uterine & Adnexa Procedures For Ovarian & Adnexal Malignancy	8.74	2.3939	Misc Pediatric	Misc Adult
804	511-4	Uterine & Adnexa Procedures For Ovarian & Adnexal Malignancy	17.62	4.8917	Misc Pediatric	Misc Adult
805	512-1	Uterine & Adnexa Procedures For Non-Ovarian & Non-Adnexal Malig	2.48	1.0198	Misc Pediatric	Misc Adult
806	512-2	Uterine & Adnexa Procedures For Non-Ovarian & Non-Adnexal Malig	3.46	1.1731	Misc Pediatric	Misc Adult
807	512-3	Uterine & Adnexa Procedures For Non-Ovarian & Non-Adnexal Malig	6.97	1.9245	Misc Pediatric	Misc Adult
808	512-4	Uterine & Adnexa Procedures For Non-Ovarian & Non-Adnexal Malig	15.26	4.1624	Misc Pediatric	Misc Adult
809	513-1	Uterine & Adnexa Procedures For Non-Malignancy Except Leiomyoma	1.97	0.717	Misc Pediatric	Misc Adult
810	513-2	Uterine & Adnexa Procedures For Non-Malignancy Except Leiomyoma	2.57	0.8497	Misc Pediatric	Misc Adult
811	513-3	Uterine & Adnexa Procedures For Non-Malignancy Except Leiomyoma	5.46	1.421	Misc Pediatric	Misc Adult
812	513-4	Uterine & Adnexa Procedures For Non-Malignancy Except Leiomyoma	13.7	3.4612	Misc Pediatric	Misc Adult
813	514-1	Female Reproductive System Reconstructive Procedures	1.42	0.6501	Misc Pediatric	Misc Adult
814	514-2	Female Reproductive System Reconstructive Procedures	1.79	0.8613	Misc Pediatric	Misc Adult
815	514-3	Female Reproductive System Reconstructive Procedures	3.98	1.1869	Misc Pediatric	Misc Adult
816	514-4	Female Reproductive System Reconstructive Procedures	12.05	3.3091	Misc Pediatric	Misc Adult
817	517-1	Dilation & Curettage For Non-Obstetric Diagnoses	1.82	0.6171	Misc Pediatric	Misc Adult
818	517-2	Dilation & Curettage For Non-Obstetric Diagnoses	2.92	0.7705	Misc Pediatric	Misc Adult
819	517-3	Dilation & Curettage For Non-Obstetric Diagnoses	6.19	1.3286	Misc Pediatric	Misc Adult
820	517-4	Dilation & Curettage For Non-Obstetric Diagnoses	10.56	2.8578	Misc Pediatric	Misc Adult
821	518-1	Other Female Reproductive System & Related Procedures	2.2	0.7412	Misc Pediatric	Misc Adult
822	518-2	Other Female Reproductive System & Related Procedures	3.81	0.9381	Misc Pediatric	Misc Adult
823	518-3	Other Female Reproductive System & Related Procedures	7.72	1.6863	Misc Pediatric	Misc Adult
824	518-4	Other Female Reproductive System & Related Procedures	16.83	3.8601	Misc Pediatric	Misc Adult

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APR DRGs and Medicaid Care Categories

Count	APR DRG	APR DRG Description	ALOS	Relative Weight	MCC Pediatric	MCC Adult
825	519-1	Uterine & Adnexa Procedures For Leiomyoma	2.16	0.7566	Misc Pediatric	Misc Adult
826	519-2	Uterine & Adnexa Procedures For Leiomyoma	2.77	0.867	Misc Pediatric	Misc Adult
827	519-3	Uterine & Adnexa Procedures For Leiomyoma	5.48	1.4974	Misc Pediatric	Misc Adult
828	519-4	Uterine & Adnexa Procedures For Leiomyoma	13.57	3.4256	Misc Pediatric	Misc Adult
829	530-1	Female Reproductive System Malignancy	2.86	0.5016	Misc Pediatric	Misc Adult
830	530-2	Female Reproductive System Malignancy	3.75	0.6725	Misc Pediatric	Misc Adult
831	530-3	Female Reproductive System Malignancy	6.66	1.165	Misc Pediatric	Misc Adult
832	530-4	Female Reproductive System Malignancy	10.72	2.1075	Misc Pediatric	Misc Adult
833	531-1	Female Reproductive System Infections	2.66	0.4765	Misc Pediatric	Misc Adult
834	531-2	Female Reproductive System Infections	3.8	0.6212	Misc Pediatric	Misc Adult
835	531-3	Female Reproductive System Infections	6.32	1.0079	Misc Pediatric	Misc Adult
836	531-4	Female Reproductive System Infections	11.12	1.9152	Misc Pediatric	Misc Adult
837	532-1	Menstrual & Other Female Reproductive System Disorders	1.75	0.4295	Misc Pediatric	Misc Adult
838	532-2	Menstrual & Other Female Reproductive System Disorders	2.43	0.5168	Misc Pediatric	Misc Adult
839	532-3	Menstrual & Other Female Reproductive System Disorders	4.1	0.8071	Misc Pediatric	Misc Adult
840	532-4	Menstrual & Other Female Reproductive System Disorders	7.04	1.4839	Misc Pediatric	Misc Adult
841	540-1	Cesarean Delivery	3.04	0.5237	Obstetrics	Obstetrics
842	540-2	Cesarean Delivery	4.05	0.6291	Obstetrics	Obstetrics
843	540-3	Cesarean Delivery	6.84	0.9323	Obstetrics	Obstetrics
844	540-4	Cesarean Delivery	10.23	2.2502	Obstetrics	Obstetrics
845	541-1	Vaginal Delivery W Sterilization &/Or D&C	2.13	0.4769	Obstetrics	Obstetrics
846	541-2	Vaginal Delivery W Sterilization &/Or D&C	2.55	0.526	Obstetrics	Obstetrics
847	541-3	Vaginal Delivery W Sterilization &/Or D&C	4.74	0.8197	Obstetrics	Obstetrics
848	541-4	Vaginal Delivery W Sterilization &/Or D&C	8.97	2.7197	Obstetrics	Obstetrics
849	542-1	Vaginal Delivery W Complicating Procedures Exc Sterilization &/Or D&C	2.1	0.3227	Obstetrics	Obstetrics
850	542-2	Vaginal Delivery W Complicating Procedures Exc Sterilization &/Or D&C	2.6	0.398	Obstetrics	Obstetrics
851	542-3	Vaginal Delivery W Complicating Procedures Exc Sterilization &/Or D&C	5.9	0.8999	Obstetrics	Obstetrics
852	542-4	Vaginal Delivery W Complicating Procedures Exc Sterilization &/Or D&C	9.21	3.1976	Obstetrics	Obstetrics

Appendix A

APR DRGs and Medicaid Care Categories

Count	APR DRG	APR DRG Description	ALOS	Relative Weight	MCC Pediatric	MCC Adult
853	544-1	D&C, Aspiration Curettage Or Hysterotomy For Obstetric Diagnoses	1.34	0.4886	Obstetrics	Obstetrics
854	544-2	D&C, Aspiration Curettage Or Hysterotomy For Obstetric Diagnoses	1.93	0.5917	Obstetrics	Obstetrics
855	544-3	D&C, Aspiration Curettage Or Hysterotomy For Obstetric Diagnoses	3.65	1.0407	Obstetrics	Obstetrics
856	544-4	D&C, Aspiration Curettage Or Hysterotomy For Obstetric Diagnoses	8.5	3.0112	Obstetrics	Obstetrics
857	545-1	Ectopic Pregnancy Procedure	1.75	0.7087	Obstetrics	Obstetrics
858	545-2	Ectopic Pregnancy Procedure	2.05	0.7975	Obstetrics	Obstetrics
859	545-3	Ectopic Pregnancy Procedure	2.71	0.9365	Obstetrics	Obstetrics
860	545-4	Ectopic Pregnancy Procedure	5.03	2.0652	Obstetrics	Obstetrics
861	546-1	Other O.R. Proc For Obstetric Diagnoses Except Delivery Diagnoses	2.65	0.5272	Obstetrics	Obstetrics
862	546-2	Other O.R. Proc For Obstetric Diagnoses Except Delivery Diagnoses	4.7	0.7758	Obstetrics	Obstetrics
863	546-3	Other O.R. Proc For Obstetric Diagnoses Except Delivery Diagnoses	8.7	1.6979	Obstetrics	Obstetrics
864	546-4	Other O.R. Proc For Obstetric Diagnoses Except Delivery Diagnoses	13.39	4.7326	Obstetrics	Obstetrics
865	560-1	Vaginal Delivery	2.02	0.307	Obstetrics	Obstetrics
866	560-2	Vaginal Delivery	2.35	0.3477	Obstetrics	Obstetrics
867	560-3	Vaginal Delivery	3.83	0.5057	Obstetrics	Obstetrics
868	560-4	Vaginal Delivery	6.7	1.3646	Obstetrics	Obstetrics
869	561-1	Postpartum & Post Abortion Diagnoses W/O Procedure	2.01	0.2589	Obstetrics	Obstetrics
870	561-2	Postpartum & Post Abortion Diagnoses W/O Procedure	2.61	0.4077	Obstetrics	Obstetrics
871	561-3	Postpartum & Post Abortion Diagnoses W/O Procedure	3.92	0.6504	Obstetrics	Obstetrics
872	561-4	Postpartum & Post Abortion Diagnoses W/O Procedure	6.88	1.7958	Obstetrics	Obstetrics
873	563-1	Threatened Abortion	2.77	0.2774	Obstetrics	Obstetrics
874	563-2	Threatened Abortion	4.33	0.385	Obstetrics	Obstetrics
875	563-3	Threatened Abortion	7.71	0.6597	Obstetrics	Obstetrics
876	563-4	Threatened Abortion	21.25	1.2779	Obstetrics	Obstetrics
877	564-1	Abortion W/O D&C, Aspiration Curettage Or Hysterotomy	1.39	0.2909	Obstetrics	Obstetrics
878	564-2	Abortion W/O D&C, Aspiration Curettage Or Hysterotomy	1.73	0.3494	Obstetrics	Obstetrics
879	564-3	Abortion W/O D&C, Aspiration Curettage Or Hysterotomy	2.61	0.5136	Obstetrics	Obstetrics
880	564-4	Abortion W/O D&C, Aspiration Curettage Or Hysterotomy	6.89	1.4766	Obstetrics	Obstetrics

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APR DRGs and Medicaid Care Categories

Count	APR DRG	APR DRG Description	ALOS	Relative Weight	MCC Pediatric	MCC Adult
881	565-1	False Labor	1.23	0.1524	Obstetrics	Obstetrics
882	565-2	False Labor	2.02	0.2067	Obstetrics	Obstetrics
883	565-3	False Labor	3.28	0.3325	Obstetrics	Obstetrics
884	565-4	False Labor	3.61	0.3658	Obstetrics	Obstetrics
885	566-1	Other Antepartum Diagnoses	2.11	0.2613	Obstetrics	Obstetrics
886	566-2	Other Antepartum Diagnoses	2.95	0.3384	Obstetrics	Obstetrics
887	566-3	Other Antepartum Diagnoses	5.56	0.5577	Obstetrics	Obstetrics
888	566-4	Other Antepartum Diagnoses	7.13	1.6471	Obstetrics	Obstetrics
889	580-1	Neonate, Transferred <5 Days Old, Not Born Here	1.54	0.2967	Neonate	Neonate
890	580-2	Neonate, Transferred <5 Days Old, Not Born Here	1.61	0.368	Neonate	Neonate
891	580-3	Neonate, Transferred <5 Days Old, Not Born Here	1.78	0.61	Neonate	Neonate
892	580-4	Neonate, Transferred <5 Days Old, Not Born Here	1.84	1.0288	Neonate	Neonate
893	581-1	Neonate, Transferred < 5 Days Old, Born Here	1.37	0.1102	Neonate	Neonate
894	581-2	Neonate, Transferred < 5 Days Old, Born Here	1.28	0.1609	Neonate	Neonate
895	581-3	Neonate, Transferred < 5 Days Old, Born Here	1.24	0.2429	Neonate	Neonate
896	581-4	Neonate, Transferred < 5 Days Old, Born Here	1.31	0.5169	Neonate	Neonate
897	583-1	Neonate W Ecmo	13.14	10.7463	Neonate	Neonate
898	583-2	Neonate W Ecmo	14.6	11.9404	Neonate	Neonate
899	583-3	Neonate W Ecmo	25.4	15.1389	Neonate	Neonate
900	583-4	Neonate W Ecmo	52.45	29.8108	Neonate	Neonate
901	588-1	Neonate Bwt <1500g W Major Procedure	39.49	8.0465	Neonate	Neonate
902	588-2	Neonate Bwt <1500g W Major Procedure	43.88	8.9406	Neonate	Neonate
903	588-3	Neonate Bwt <1500g W Major Procedure	73.43	18.4001	Neonate	Neonate
904	588-4	Neonate Bwt <1500g W Major Procedure	95.23	26.8249	Neonate	Neonate
905	589-1	Neonate Bwt <500g Or Ga <24 Weeks	47.83	14.0033	Neonate	Neonate
906	589-2	Neonate Bwt <500g Or Ga <24 Weeks	52.04	12.7304	Neonate	Neonate
907	589-3	Neonate Bwt <500g Or Ga <24 Weeks	23.65	9.7251	Neonate	Neonate
908	589-4	Neonate Bwt <500g Or Ga <24 Weeks	2.23	0.3306	Neonate	Neonate

Appendix A APR DRGs and Medicaid Care Categories						
Count	APR DRG	APR DRG Description	ALOS	Relative Weight	MCC Pediatric	MCC Adult
909	591-1	Neonate Birthwt 500-749g W/O Major Procedure	1.93	0.378	Neonate	Neonate
910	591-2	Neonate Birthwt 500-749g W/O Major Procedure	25.39	4.9006	Neonate	Neonate
911	591-3	Neonate Birthwt 500-749g W/O Major Procedure	41.81	13.0569	Neonate	Neonate
912	591-4	Neonate Birthwt 500-749g W/O Major Procedure	67.12	21.5023	Neonate	Neonate
913	593-1	Neonate Birthwt 750-999g W/O Major Procedure	10.42	1.4547	Neonate	Neonate
914	593-2	Neonate Birthwt 750-999g W/O Major Procedure	44.92	7.587	Neonate	Neonate
915	593-3	Neonate Birthwt 750-999g W/O Major Procedure	56.5	11.6171	Neonate	Neonate
916	593-4	Neonate Birthwt 750-999g W/O Major Procedure	66.97	16.223	Neonate	Neonate
917	602-1	Neonate Bwt 1000-1249g W Resp Dist Synd/Oth Maj Resp Or Maj Anom	23.56	3.5945	Neonate	Neonate
918	602-2	Neonate Bwt 1000-1249g W Resp Dist Synd/Oth Maj Resp Or Maj Anom	41.11	6.0381	Neonate	Neonate
919	602-3	Neonate Bwt 1000-1249g W Resp Dist Synd/Oth Maj Resp Or Maj Anom	50.03	8.3857	Neonate	Neonate
920	602-4	Neonate Bwt 1000-1249g W Resp Dist Synd/Oth Maj Resp Or Maj Anom	59.53	13.0369	Neonate	Neonate
921	603-1	Neonate Birthwt 1000-1249g W Or W/O Other Significant Condition	21.4	3.1823	Neonate	Neonate
922	603-2	Neonate Birthwt 1000-1249g W Or W/O Other Significant Condition	33.43	4.7176	Neonate	Neonate
923	603-3	Neonate Birthwt 1000-1249g W Or W/O Other Significant Condition	44.66	7.8546	Neonate	Neonate
924	603-4	Neonate Birthwt 1000-1249g W Or W/O Other Significant Condition	58.74	12.4205	Neonate	Neonate
925	607-1	Neonate Bwt 1250-1499g W Resp Dist Synd/Oth Maj Resp Or Maj Anom	22.86	3.317	Neonate	Neonate
926	607-2	Neonate Bwt 1250-1499g W Resp Dist Synd/Oth Maj Resp Or Maj Anom	33.8	4.677	Neonate	Neonate
927	607-3	Neonate Bwt 1250-1499g W Resp Dist Synd/Oth Maj Resp Or Maj Anom	41.02	6.4452	Neonate	Neonate
928	607-4	Neonate Bwt 1250-1499g W Resp Dist Synd/Oth Maj Resp Or Maj Anom	49.07	10.5059	Neonate	Neonate
929	608-1	Neonate Bwt 1250-1499g W Or W/O Other Significant Condition	19.12	2.3683	Neonate	Neonate
930	608-2	Neonate Bwt 1250-1499g W Or W/O Other Significant Condition	29.06	4.0058	Neonate	Neonate
931	608-3	Neonate Bwt 1250-1499g W Or W/O Other Significant Condition	36.93	6.1351	Neonate	Neonate
932	608-4	Neonate Bwt 1250-1499g W Or W/O Other Significant Condition	45.24	8.5373	Neonate	Neonate
933	609-1	Neonate Bwt 1500-2499g W Major Procedure	31.57	3.6577	Neonate	Neonate
934	609-2	Neonate Bwt 1500-2499g W Major Procedure	20.97	4.2681	Neonate	Neonate
935	609-3	Neonate Bwt 1500-2499g W Major Procedure	35.66	7.4395	Neonate	Neonate
936	609-4	Neonate Bwt 1500-2499g W Major Procedure	57.42	14.4194	Neonate	Neonate

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APR DRGs and Medicaid Care Categories

Count	APR DRG	APR DRG Description	ALOS	Relative Weight	MCC Pediatric	MCC Adult
937	611-1	Neonate Birthwt 1500-1999g W Major Anomaly	13.43	1.8135	Neonate	Neonate
938	611-2	Neonate Birthwt 1500-1999g W Major Anomaly	22.29	2.8941	Neonate	Neonate
939	611-3	Neonate Birthwt 1500-1999g W Major Anomaly	29.99	4.7808	Neonate	Neonate
940	611-4	Neonate Birthwt 1500-1999g W Major Anomaly	33.32	9.6976	Neonate	Neonate
941	612-1	Neonate Bwt 1500-1999g W Resp Dist Synd/Oth Maj Resp Cond	16.91	2.0987	Neonate	Neonate
942	612-2	Neonate Bwt 1500-1999g W Resp Dist Synd/Oth Maj Resp Cond	23.97	3.1468	Neonate	Neonate
943	612-3	Neonate Bwt 1500-1999g W Resp Dist Synd/Oth Maj Resp Cond	30.34	4.6186	Neonate	Neonate
944	612-4	Neonate Bwt 1500-1999g W Resp Dist Synd/Oth Maj Resp Cond	37.82	7.1311	Neonate	Neonate
945	613-1	Neonate Birthwt 1500-1999g W Congenital/Perinatal Infection	13.87	1.7576	Neonate	Neonate
946	613-2	Neonate Birthwt 1500-1999g W Congenital/Perinatal Infection	21.73	3.0595	Neonate	Neonate
947	613-3	Neonate Birthwt 1500-1999g W Congenital/Perinatal Infection	29.28	4.6042	Neonate	Neonate
948	613-4	Neonate Birthwt 1500-1999g W Congenital/Perinatal Infection	33.95	8.8071	Neonate	Neonate
949	614-1	Neonate Bwt 1500-1999g W Or W/O Other Significant Condition	10.75	1.181	Neonate	Neonate
950	614-2	Neonate Bwt 1500-1999g W Or W/O Other Significant Condition	19.43	2.5407	Neonate	Neonate
951	614-3	Neonate Bwt 1500-1999g W Or W/O Other Significant Condition	26.67	3.9139	Neonate	Neonate
952	614-4	Neonate Bwt 1500-1999g W Or W/O Other Significant Condition	27.14	5.7484	Neonate	Neonate
953	621-1	Neonate Bwt 2000-2499g W Major Anomaly	8.12	0.9858	Neonate	Neonate
954	621-2	Neonate Bwt 2000-2499g W Major Anomaly	14.21	1.829	Neonate	Neonate
955	621-3	Neonate Bwt 2000-2499g W Major Anomaly	19.72	3.1234	Neonate	Neonate
956	621-4	Neonate Bwt 2000-2499g W Major Anomaly	24.15	6.6105	Neonate	Neonate
957	622-1	Neonate Bwt 2000-2499g W Resp Dist Synd/Oth Maj Resp Cond	10.51	1.3328	Neonate	Neonate
958	622-2	Neonate Bwt 2000-2499g W Resp Dist Synd/Oth Maj Resp Cond	14.17	1.9486	Neonate	Neonate
959	622-3	Neonate Bwt 2000-2499g W Resp Dist Synd/Oth Maj Resp Cond	18.78	2.9453	Neonate	Neonate
960	622-4	Neonate Bwt 2000-2499g W Resp Dist Synd/Oth Maj Resp Cond	21.88	5.0294	Neonate	Neonate
961	623-1	Neonate Bwt 2000-2499g W Congenital/Perinatal Infection	9.06	1.1842	Neonate	Neonate
962	623-2	Neonate Bwt 2000-2499g W Congenital/Perinatal Infection	13.6	1.856	Neonate	Neonate
963	623-3	Neonate Bwt 2000-2499g W Congenital/Perinatal Infection	18.92	3.0075	Neonate	Neonate
964	623-4	Neonate Bwt 2000-2499g W Congenital/Perinatal Infection	22.75	4.4897	Neonate	Neonate

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APR DRGs and Medicaid Care Categories

Count	APR DRG	APR DRG Description	ALOS	Relative Weight	MCC Pediatric	MCC Adult
965	625-1	Neonate Bwt 2000-2499g W Other Significant Condition	10.92	1.3	Neonate	Neonate
966	625-2	Neonate Bwt 2000-2499g W Other Significant Condition	16.11	2.0843	Neonate	Neonate
967	625-3	Neonate Bwt 2000-2499g W Other Significant Condition	17.15	2.5782	Neonate	Neonate
968	625-4	Neonate Bwt 2000-2499g W Other Significant Condition	20.93	4.7819	Neonate	Neonate
969	626-1	Neonate Bwt 2000-2499g, Normal Newborn Or Neonate W Other Problem	2.77	0.1318	Normal newborn	Normal newborn
970	626-2	Neonate Bwt 2000-2499g, Normal Newborn Or Neonate W Other Problem	4.47	0.3513	Normal newborn	Normal newborn
971	626-3	Neonate Bwt 2000-2499g, Normal Newborn Or Neonate W Other Problem	8.31	0.9289	Normal newborn	Normal newborn
972	626-4	Neonate Bwt 2000-2499g, Normal Newborn Or Neonate W Other Problem	25.33	1.9481	Normal newborn	Normal newborn
973	630-1	Neonate Birthwt >2499g W Major Cardiovascular Procedure	3.49	1.9538	Neonate	Neonate
974	630-2	Neonate Birthwt >2499g W Major Cardiovascular Procedure	7.53	3.6892	Neonate	Neonate
975	630-3	Neonate Birthwt >2499g W Major Cardiovascular Procedure	16.58	7.59	Neonate	Neonate
976	630-4	Neonate Birthwt >2499g W Major Cardiovascular Procedure	42.55	15.4186	Neonate	Neonate
977	631-1	Neonate Birthwt >2499g W Other Major Procedure	2.87	1.3845	Neonate	Neonate
978	631-2	Neonate Birthwt >2499g W Other Major Procedure	7.69	2.3837	Neonate	Neonate
979	631-3	Neonate Birthwt >2499g W Other Major Procedure	21.02	5.1357	Neonate	Neonate
980	631-4	Neonate Birthwt >2499g W Other Major Procedure	50.24	13.5277	Neonate	Neonate
981	633-1	Neonate Birthwt >2499g W Major Anomaly	2.88	0.2329	Neonate	Neonate
982	633-2	Neonate Birthwt >2499g W Major Anomaly	6.22	0.7995	Neonate	Neonate
983	633-3	Neonate Birthwt >2499g W Major Anomaly	11.38	1.9793	Neonate	Neonate
984	633-4	Neonate Birthwt >2499g W Major Anomaly	23.34	6.0124	Neonate	Neonate
985	634-1	Neonate, Birthwt >2499g W Resp Dist Synd/Oth Maj Resp Cond	4.51	0.5495	Neonate	Neonate
986	634-2	Neonate, Birthwt >2499g W Resp Dist Synd/Oth Maj Resp Cond	7.16	1.0469	Neonate	Neonate
987	634-3	Neonate, Birthwt >2499g W Resp Dist Synd/Oth Maj Resp Cond	11.69	2.045	Neonate	Neonate
988	634-4	Neonate, Birthwt >2499g W Resp Dist Synd/Oth Maj Resp Cond	23.67	5.8685	Neonate	Neonate
989	636-1	Neonate Birthwt >2499g W Congenital/Perinatal Infection	5.44	0.6707	Neonate	Neonate
990	636-2	Neonate Birthwt >2499g W Congenital/Perinatal Infection	7.81	1.0661	Neonate	Neonate
991	636-3	Neonate Birthwt >2499g W Congenital/Perinatal Infection	11.16	1.8399	Neonate	Neonate
992	636-4	Neonate Birthwt >2499g W Congenital/Perinatal Infection	18.51	6.0581	Neonate	Neonate

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APR DRGs and Medicaid Care Categories

Count	APR DRG	APR DRG Description	ALOS	Relative Weight	MCC Pediatric	MCC Adult
993	639-1	Neonate Birthwt >2499g W Other Significant Condition	3.74	0.3886	Neonate	Neonate
994	639-2	Neonate Birthwt >2499g W Other Significant Condition	6.25	0.7898	Neonate	Neonate
995	639-3	Neonate Birthwt >2499g W Other Significant Condition	8.64	1.5079	Neonate	Neonate
996	639-4	Neonate Birthwt >2499g W Other Significant Condition	15.71	3.9937	Neonate	Neonate
997	640-1	Neonate Birthwt >2499g, Normal Newborn Or Neonate W Other Problem	2.12	0.0966	Normal newborn	Normal newborn
998	640-2	Neonate Birthwt >2499g, Normal Newborn Or Neonate W Other Problem	2.45	0.1403	Normal newborn	Normal newborn
999	640-3	Neonate Birthwt >2499g, Normal Newborn Or Neonate W Other Problem	3.67	0.3635	Normal newborn	Normal newborn
1000	640-4	Neonate Birthwt >2499g, Normal Newborn Or Neonate W Other Problem	9.29	2.0188	Normal newborn	Normal newborn
1001	650-1	Splenectomy	3.8	1.2202	Misc Pediatric	Misc Adult
1002	650-2	Splenectomy	5.63	1.7094	Misc Pediatric	Misc Adult
1003	650-3	Splenectomy	9.19	2.8561	Misc Pediatric	Misc Adult
1004	650-4	Splenectomy	16.94	5.7931	Misc Pediatric	Misc Adult
1005	651-1	Other Procedures Of Blood & Blood-Forming Organs	3.3	0.9332	Misc Pediatric	Misc Adult
1006	651-2	Other Procedures Of Blood & Blood-Forming Organs	4.52	1.3518	Misc Pediatric	Misc Adult
1007	651-3	Other Procedures Of Blood & Blood-Forming Organs	9.39	2.0755	Misc Pediatric	Misc Adult
1008	651-4	Other Procedures Of Blood & Blood-Forming Organs	21.18	5.6638	Misc Pediatric	Misc Adult
1009	660-1	Major Hematologic/Immunologic Diag Exc Sickle Cell Crisis & Coagul	3.16	0.6548	Misc Pediatric	Misc Adult
1010	660-2	Major Hematologic/Immunologic Diag Exc Sickle Cell Crisis & Coagul	4.18	0.7995	Misc Pediatric	Misc Adult
1011	660-3	Major Hematologic/Immunologic Diag Exc Sickle Cell Crisis & Coagul	6.74	1.3532	Misc Pediatric	Misc Adult
1012	660-4	Major Hematologic/Immunologic Diag Exc Sickle Cell Crisis & Coagul	14.02	3.8758	Misc Pediatric	Misc Adult
1013	661-1	Coagulation & Platelet Disorders	2.85	0.8364	Misc Pediatric	Misc Adult
1014	661-2	Coagulation & Platelet Disorders	3.85	0.9991	Misc Pediatric	Misc Adult
1015	661-3	Coagulation & Platelet Disorders	5.73	1.9341	Misc Pediatric	Misc Adult
1016	661-4	Coagulation & Platelet Disorders	12.08	3.7334	Misc Pediatric	Misc Adult
1017	662-1	Sickle Cell Anemia Crisis	4.17	0.5513	Misc Pediatric	Misc Adult
1018	662-2	Sickle Cell Anemia Crisis	5.36	0.7256	Misc Pediatric	Misc Adult
1019	662-3	Sickle Cell Anemia Crisis	7.49	1.1346	Misc Pediatric	Misc Adult
1020	662-4	Sickle Cell Anemia Crisis	11.84	2.5331	Misc Pediatric	Misc Adult

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APR DRGs and Medicaid Care Categories

Count	APR DRG	APR DRG Description	ALOS	Relative Weight	MCC Pediatric	MCC Adult
1021	663-1	Other Anemia & Disorders Of Blood & Blood-Forming Organs	2.36	0.4469	Misc Pediatric	Misc Adult
1022	663-2	Other Anemia & Disorders Of Blood & Blood-Forming Organs	3.04	0.5823	Misc Pediatric	Misc Adult
1023	663-3	Other Anemia & Disorders Of Blood & Blood-Forming Organs	4.27	0.8047	Misc Pediatric	Misc Adult
1024	663-4	Other Anemia & Disorders Of Blood & Blood-Forming Organs	7.99	1.6478	Misc Pediatric	Misc Adult
1025	680-1	Major O.R. Procedures For Lymphatic/Hematopoietic/Other Neoplasms	4.06	1.4168	Misc Pediatric	Misc Adult
1026	680-2	Major O.R. Procedures For Lymphatic/Hematopoietic/Other Neoplasms	6.6	1.9963	Misc Pediatric	Misc Adult
1027	680-3	Major O.R. Procedures For Lymphatic/Hematopoietic/Other Neoplasms	12.6	3.4411	Misc Pediatric	Misc Adult
1028	680-4	Major O.R. Procedures For Lymphatic/Hematopoietic/Other Neoplasms	25.79	8.4366	Misc Pediatric	Misc Adult
1029	681-1	Other O.R. Procedures For Lymphatic/Hematopoietic/Other Neoplasms	2.74	1.0242	Misc Pediatric	Misc Adult
1030	681-2	Other O.R. Procedures For Lymphatic/Hematopoietic/Other Neoplasms	4.9	1.3699	Misc Pediatric	Misc Adult
1031	681-3	Other O.R. Procedures For Lymphatic/Hematopoietic/Other Neoplasms	11.56	2.6788	Misc Pediatric	Misc Adult
1032	681-4	Other O.R. Procedures For Lymphatic/Hematopoietic/Other Neoplasms	22.43	6.6448	Misc Pediatric	Misc Adult
1033	690-1	Acute Leukemia	4.84	1.048	Misc Pediatric	Misc Adult
1034	690-2	Acute Leukemia	8.49	2.0173	Misc Pediatric	Misc Adult
1035	690-3	Acute Leukemia	16	3.8186	Misc Pediatric	Misc Adult
1036	690-4	Acute Leukemia	23.98	7.8063	Misc Pediatric	Misc Adult
1037	691-1	Lymphoma, Myeloma & Non-Acute Leukemia	3.82	0.9245	Misc Pediatric	Misc Adult
1038	691-2	Lymphoma, Myeloma & Non-Acute Leukemia	5.44	1.1787	Misc Pediatric	Misc Adult
1039	691-3	Lymphoma, Myeloma & Non-Acute Leukemia	8.46	1.7737	Misc Pediatric	Misc Adult
1040	691-4	Lymphoma, Myeloma & Non-Acute Leukemia	14.96	3.763	Misc Pediatric	Misc Adult
1041	692-1	Radiotherapy	3.63	0.8052	Misc Pediatric	Misc Adult
1042	692-2	Radiotherapy	4.52	1.3516	Misc Pediatric	Misc Adult
1043	692-3	Radiotherapy	9.56	2.0237	Misc Pediatric	Misc Adult
1044	692-4	Radiotherapy	20.7	3.7678	Misc Pediatric	Misc Adult
1045	693-1	Chemotherapy	2.79	0.7466	Misc Pediatric	Misc Adult
1046	693-2	Chemotherapy	3.75	0.9804	Misc Pediatric	Misc Adult
1047	693-3	Chemotherapy	8.62	2.0275	Misc Pediatric	Misc Adult
1048	693-4	Chemotherapy	23.07	6.0347	Misc Pediatric	Misc Adult
1049	694-1	Lymphatic & Other Malignancies & Neoplasms Of Uncertain Behavior	3	0.5794	Misc Pediatric	Misc Adult

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APR DRGs and Medicaid Care Categories

Count	APR DRG	APR DRG Description	ALOS	Relative Weight	MCC Pediatric	MCC Adult
1050	694-2	Lymphatic & Other Malignancies & Neoplasms Of Uncertain Behavior	4.1	0.7765	Misc Pediatric	Misc Adult
1051	694-3	Lymphatic & Other Malignancies & Neoplasms Of Uncertain Behavior	6.61	1.2109	Misc Pediatric	Misc Adult
1052	694-4	Lymphatic & Other Malignancies & Neoplasms Of Uncertain Behavior	11.09	2.5146	Misc Pediatric	Misc Adult
1053	710-1	Infectious & Parasitic Diseases Including Hiv W O.R. Procedure	4.58	1.001	Misc Pediatric	Misc Adult
1054	710-2	Infectious & Parasitic Diseases Including Hiv W O.R. Procedure	7.31	1.6787	Misc Pediatric	Misc Adult
1055	710-3	Infectious & Parasitic Diseases Including Hiv W O.R. Procedure	11.68	2.7582	Misc Pediatric	Misc Adult
1056	710-4	Infectious & Parasitic Diseases Including Hiv W O.R. Procedure	18.83	6.0896	Misc Pediatric	Misc Adult
1057	711-1	Post-Op, Post-Trauma, Other Device Infections W O.R. Procedure	4.63	1.0087	Misc Pediatric	Misc Adult
1058	711-2	Post-Op, Post-Trauma, Other Device Infections W O.R. Procedure	6.88	1.4608	Misc Pediatric	Misc Adult
1059	711-3	Post-Op, Post-Trauma, Other Device Infections W O.R. Procedure	11.43	2.5443	Misc Pediatric	Misc Adult
1060	711-4	Post-Op, Post-Trauma, Other Device Infections W O.R. Procedure	21.43	5.9143	Misc Pediatric	Misc Adult
1061	720-1	Septicemia & Disseminated Infections	3.46	0.5116	Misc Pediatric	Misc Adult
1062	720-2	Septicemia & Disseminated Infections	4.54	0.7113	Misc Pediatric	Misc Adult
1063	720-3	Septicemia & Disseminated Infections	6.29	1.17	Misc Pediatric	Misc Adult
1064	720-4	Septicemia & Disseminated Infections	9.6	2.7338	Misc Pediatric	Misc Adult
1065	721-1	Post-Operative, Post-Traumatic, Other Device Infections	3.7	0.5624	Misc Pediatric	Misc Adult
1066	721-2	Post-Operative, Post-Traumatic, Other Device Infections	4.8	0.775	Misc Pediatric	Misc Adult
1067	721-3	Post-Operative, Post-Traumatic, Other Device Infections	6.81	1.2535	Misc Pediatric	Misc Adult
1068	721-4	Post-Operative, Post-Traumatic, Other Device Infections	11.25	2.5457	Misc Pediatric	Misc Adult
1069	722-1	Fever	2.31	0.3342	Misc Pediatric	Misc Adult
1070	722-2	Fever	3	0.5306	Misc Pediatric	Misc Adult
1071	722-3	Fever	4.3	0.7905	Misc Pediatric	Misc Adult
1072	722-4	Fever	7.21	1.4856	Misc Pediatric	Misc Adult
1073	723-1	Viral Illness	2.16	0.3319	Misc Pediatric	Misc Adult
1074	723-2	Viral Illness	2.83	0.4771	Misc Pediatric	Misc Adult
1075	723-3	Viral Illness	4.55	0.8209	Misc Pediatric	Misc Adult
1076	723-4	Viral Illness	10.68	2.6544	Misc Pediatric	Misc Adult
1077	724-1	Other Infectious & Parasitic Diseases	3.91	0.5823	Misc Pediatric	Misc Adult
1078	724-2	Other Infectious & Parasitic Diseases	4.86	0.7593	Misc Pediatric	Misc Adult

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APR DRGs and Medicaid Care Categories

Count	APR DRG	APR DRG Description	ALOS	Relative Weight	MCC Pediatric	MCC Adult
1079	724-3	Other Infectious & Parasitic Diseases	6.79	1.2197	Misc Pediatric	Misc Adult
1080	724-4	Other Infectious & Parasitic Diseases	12.69	3.0542	Misc Pediatric	Misc Adult
1081	740-1	Mental Illness Diagnosis W O.R. Procedure	6.19	1.1282	Other	Other
1082	740-2	Mental Illness Diagnosis W O.R. Procedure	13.61	1.5169	Other	Other
1083	740-3	Mental Illness Diagnosis W O.R. Procedure	18.64	2.4261	Other	Other
1084	740-4	Mental Illness Diagnosis W O.R. Procedure	28.79	4.3493	Other	Other
1085	750-1	Schizophrenia	11.56	0.6446	Other	Other
1086	750-2	Schizophrenia	11.08	0.6876	Other	Other
1087	750-3	Schizophrenia	12.88	0.911	Other	Other
1088	750-4	Schizophrenia	22.41	1.9617	Other	Other
1089	751-1	Major Depressive Disorders & Other/Unspecified Psychoses	5.32	0.36	Other	Other
1090	751-2	Major Depressive Disorders & Other/Unspecified Psychoses	6.74	0.473	Other	Other
1091	751-3	Major Depressive Disorders & Other/Unspecified Psychoses	9.32	0.7667	Other	Other
1092	751-4	Major Depressive Disorders & Other/Unspecified Psychoses	17.94	1.6291	Other	Other
1093	752-1	Disorders Of Personality & Impulse Control	5.15	0.3134	Other	Other
1094	752-2	Disorders Of Personality & Impulse Control	6.3	0.4406	Other	Other
1095	752-3	Disorders Of Personality & Impulse Control	10.32	0.7176	Other	Other
1096	752-4	Disorders Of Personality & Impulse Control	23	0.8394	Other	Other
1097	753-1	Bipolar Disorders	6.27	0.4152	Other	Other
1098	753-2	Bipolar Disorders	7.68	0.5228	Other	Other
1099	753-3	Bipolar Disorders	10.08	0.7698	Other	Other
1100	753-4	Bipolar Disorders	18.1	1.5717	Other	Other
1101	754-1	Depression Except Major Depressive Disorder	4.21	0.2984	Other	Other
1102	754-2	Depression Except Major Depressive Disorder	5.34	0.3847	Other	Other
1103	754-3	Depression Except Major Depressive Disorder	7.67	0.5654	Other	Other
1104	754-4	Depression Except Major Depressive Disorder	17.23	1.3276	Other	Other
1105	755-1	Adjustment Disorders & Neuroses Except Depressive Diagnoses	3.57	0.2416	Other	Other
1106	755-2	Adjustment Disorders & Neuroses Except Depressive Diagnoses	5.55	0.3965	Other	Other
1107	755-3	Adjustment Disorders & Neuroses Except Depressive Diagnoses	8.33	0.6085	Other	Other

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APR DRGs and Medicaid Care Categories

Count	APR DRG	APR DRG Description	ALOS	Relative Weight	MCC Pediatric	MCC Adult
1108	755-4	Adjustment Disorders & Neuroses Except Depressive Diagnoses	7.9	1.0344	Other	Other
1109	756-1	Acute Anxiety & Delirium States	2.87	0.4176	Other	Other
1110	756-2	Acute Anxiety & Delirium States	3.99	0.5014	Other	Other
1111	756-3	Acute Anxiety & Delirium States	4.79	0.6108	Other	Other
1112	756-4	Acute Anxiety & Delirium States	10.61	1.1254	Other	Other
1113	757-1	Organic Mental Health Disturbances	7.97	0.5751	Other	Other
1114	757-2	Organic Mental Health Disturbances	8.64	0.6539	Other	Other
1115	757-3	Organic Mental Health Disturbances	9.59	0.7923	Other	Other
1116	757-4	Organic Mental Health Disturbances	14.04	1.3882	Other	Other
1117	758-1	Childhood Behavioral Disorders	8.38	0.5131	Other	Other
1118	758-2	Childhood Behavioral Disorders	10.92	0.5995	Other	Other
1119	758-3	Childhood Behavioral Disorders	15.04	0.7566	Other	Other
1120	758-4	Childhood Behavioral Disorders	16.57	1.1921	Other	Other
1121	759-1	Eating Disorders	17.35	1.359	Other	Other
1122	759-2	Eating Disorders	14.69	1.5379	Other	Other
1123	759-3	Eating Disorders	14.9	1.6454	Other	Other
1124	759-4	Eating Disorders	21.59	2.6506	Other	Other
1125	760-1	Other Mental Health Disorders	6.32	0.4525	Other	Other
1126	760-2	Other Mental Health Disorders	7.26	0.6016	Other	Other
1127	760-3	Other Mental Health Disorders	9.11	0.8166	Other	Other
1128	760-4	Other Mental Health Disorders	13.95	1.5878	Other	Other
1129	770-1	Drug & Alcohol Abuse Or Dependence, Left Against Medical Advice	2.4	0.2204	Other	Other
1130	770-2	Drug & Alcohol Abuse Or Dependence, Left Against Medical Advice	2.47	0.2591	Other	Other
1131	770-3	Drug & Alcohol Abuse Or Dependence, Left Against Medical Advice	3.33	0.5263	Other	Other
1132	770-4	Drug & Alcohol Abuse Or Dependence, Left Against Medical Advice	6.81	1.7171	Other	Other
1133	772-1	Alcohol & Drug Dependence W Rehab Or Rehab/Detox Therapy	11.73	0.5347	Other	Other
1134	772-2	Alcohol & Drug Dependence W Rehab Or Rehab/Detox Therapy	11.52	0.5812	Other	Other
1135	772-3	Alcohol & Drug Dependence W Rehab Or Rehab/Detox Therapy	10.34	0.6565	Other	Other
1136	772-4	Alcohol & Drug Dependence W Rehab Or Rehab/Detox Therapy	12.29	1.1651	Other	Other

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APR DRGs and Medicaid Care Categories

Count	APR DRG	APR DRG Description	ALOS	Relative Weight	MCC Pediatric	MCC Adult
1137	773-1	Opioid Abuse & Dependence	3.55	0.2839	Other	Other
1138	773-2	Opioid Abuse & Dependence	4.12	0.3352	Other	Other
1139	773-3	Opioid Abuse & Dependence	4.9	0.5605	Other	Other
1140	773-4	Opioid Abuse & Dependence	9.06	1.6062	Other	Other
1141	774-1	Cocaine Abuse & Dependence	5.66	0.2882	Other	Other
1142	774-2	Cocaine Abuse & Dependence	4.01	0.3548	Other	Other
1143	774-3	Cocaine Abuse & Dependence	4.36	0.6026	Other	Other
1144	774-4	Cocaine Abuse & Dependence	7.91	1.6615	Other	Other
1145	775-1	Alcohol Abuse & Dependence	3.36	0.3029	Other	Other
1146	775-2	Alcohol Abuse & Dependence	3.8	0.4403	Other	Other
1147	775-3	Alcohol Abuse & Dependence	5.53	0.8125	Other	Other
1148	775-4	Alcohol Abuse & Dependence	11.8	2.2803	Other	Other
1149	776-1	Other Drug Abuse & Dependence	4.98	0.3487	Other	Other
1150	776-2	Other Drug Abuse & Dependence	4.1	0.4565	Other	Other
1151	776-3	Other Drug Abuse & Dependence	4.81	0.73	Other	Other
1152	776-4	Other Drug Abuse & Dependence	8.64	1.4083	Other	Other
1153	791-1	O.R. Procedure For Other Complications Of Treatment	3.01	0.8455	Misc Pediatric	Misc Adult
1154	791-2	O.R. Procedure For Other Complications Of Treatment	5.14	1.2835	Misc Pediatric	Misc Adult
1155	791-3	O.R. Procedure For Other Complications Of Treatment	9.1	2.1062	Misc Pediatric	Misc Adult
1156	791-4	O.R. Procedure For Other Complications Of Treatment	19.87	5.77	Misc Pediatric	Misc Adult
1157	811-1	Allergic Reactions	1.51	0.2723	Misc Pediatric	Misc Adult
1158	811-2	Allergic Reactions	2.04	0.3828	Misc Pediatric	Misc Adult
1159	811-3	Allergic Reactions	3.59	0.7427	Misc Pediatric	Misc Adult
1160	811-4	Allergic Reactions	7.82	1.7975	Misc Pediatric	Misc Adult
1161	812-1	Poisoning Of Medicinal Agents	1.67	0.3169	Misc Pediatric	Misc Adult
1162	812-2	Poisoning Of Medicinal Agents	2.24	0.4052	Misc Pediatric	Misc Adult
1163	812-3	Poisoning Of Medicinal Agents	3.39	0.7421	Misc Pediatric	Misc Adult
1164	812-4	Poisoning Of Medicinal Agents	6.8	1.8216	Misc Pediatric	Misc Adult

Appendix A

APR DRGs and Medicaid Care Categories

Count	APR DRG	APR DRG Description	ALOS	Relative Weight	MCC Pediatric	MCC Adult
1165	813-1	Other Complications Of Treatment	2.44	0.454	Misc Pediatric	Misc Adult
1166	813-2	Other Complications Of Treatment	3.4	0.6179	Misc Pediatric	Misc Adult
1167	813-3	Other Complications Of Treatment	5.37	0.9923	Misc Pediatric	Misc Adult
1168	813-4	Other Complications Of Treatment	10.49	2.231	Misc Pediatric	Misc Adult
1169	815-1	Other Injury, Poisoning & Toxic Effect Diagnoses	1.72	0.517	Misc Pediatric	Misc Adult
1170	815-2	Other Injury, Poisoning & Toxic Effect Diagnoses	2.88	0.5222	Misc Pediatric	Misc Adult
1171	815-3	Other Injury, Poisoning & Toxic Effect Diagnoses	4.22	0.8502	Misc Pediatric	Misc Adult
1172	815-4	Other Injury, Poisoning & Toxic Effect Diagnoses	8.16	2.3215	Misc Pediatric	Misc Adult
1173	816-1	Toxic Effects Of Non-Medicinal Substances	1.69	0.5293	Misc Pediatric	Misc Adult
1174	816-2	Toxic Effects Of Non-Medicinal Substances	2.32	0.5265	Misc Pediatric	Misc Adult
1175	816-3	Toxic Effects Of Non-Medicinal Substances	3.33	0.8045	Misc Pediatric	Misc Adult
1176	816-4	Toxic Effects Of Non-Medicinal Substances	7.04	1.9977	Misc Pediatric	Misc Adult
1177	841-1	Extensive 3rd Degree Burns W Skin Graft	20.41	5.5368	Misc Pediatric	Misc Adult
1178	841-2	Extensive 3rd Degree Burns W Skin Graft	22.68	6.152	Misc Pediatric	Misc Adult
1179	841-3	Extensive 3rd Degree Burns W Skin Graft	25.2	6.8356	Misc Pediatric	Misc Adult
1180	841-4	Extensive 3rd Degree Burns W Skin Graft	42.83	19.5892	Misc Pediatric	Misc Adult
1181	842-1	Full Thickness Burns W Skin Graft	6.72	1.4759	Misc Pediatric	Misc Adult
1182	842-2	Full Thickness Burns W Skin Graft	10.39	2.4055	Misc Pediatric	Misc Adult
1183	842-3	Full Thickness Burns W Skin Graft	17.04	4.3288	Misc Pediatric	Misc Adult
1184	842-4	Full Thickness Burns W Skin Graft	30.3	12.4738	Misc Pediatric	Misc Adult
1185	843-1	Extensive 3rd Degree Or Full Thickness Burns W/O Skin Graft	3.18	0.5339	Misc Pediatric	Misc Adult
1186	843-2	Extensive 3rd Degree Or Full Thickness Burns W/O Skin Graft	4.74	0.8297	Misc Pediatric	Misc Adult
1187	843-3	Extensive 3rd Degree Or Full Thickness Burns W/O Skin Graft	6.01	1.2371	Misc Pediatric	Misc Adult
1188	843-4	Extensive 3rd Degree Or Full Thickness Burns W/O Skin Graft	11.69	4.6963	Misc Pediatric	Misc Adult
1189	844-1	Partial Thickness Burns W Or W/O Skin Graft	3.01	0.5937	Misc Pediatric	Misc Adult
1190	844-2	Partial Thickness Burns W Or W/O Skin Graft	4.79	0.8861	Misc Pediatric	Misc Adult
1191	844-3	Partial Thickness Burns W Or W/O Skin Graft	7.25	1.656	Misc Pediatric	Misc Adult
1192	844-4	Partial Thickness Burns W Or W/O Skin Graft	18.99	5.58	Misc Pediatric	Misc Adult

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APR DRGs and Medicaid Care Categories

Count	APR DRG	APR DRG Description	ALOS	Relative Weight	MCC Pediatric	MCC Adult
1193	850-1	Procedure W Diag Of Rehab, Aftercare Or Oth Contact W Health Service	2.71	1.179	Other	Other
1194	850-2	Procedure W Diag Of Rehab, Aftercare Or Oth Contact W Health Service	5.47	1.4292	Other	Other
1195	850-3	Procedure W Diag Of Rehab, Aftercare Or Oth Contact W Health Service	16.89	2.8306	Other	Other
1196	850-4	Procedure W Diag Of Rehab, Aftercare Or Oth Contact W Health Service	33.4	6.2414	Other	Other
1197	860-1	Rehabilitation	8.88	0.6677	Other	Other
1198	860-2	Rehabilitation	11.12	0.9466	Other	Other
1199	860-3	Rehabilitation	14.45	1.405	Other	Other
1200	860-4	Rehabilitation	17.6	2.0018	Other	Other
1201	861-1	Signs, Symptoms & Other Factors Influencing Health Status	2.84	0.3901	Misc Pediatric	Misc Adult
1202	861-2	Signs, Symptoms & Other Factors Influencing Health Status	3.48	0.5013	Misc Pediatric	Misc Adult
1203	861-3	Signs, Symptoms & Other Factors Influencing Health Status	5.14	0.7528	Misc Pediatric	Misc Adult
1204	861-4	Signs, Symptoms & Other Factors Influencing Health Status	9.33	1.6464	Misc Pediatric	Misc Adult
1205	862-1	Other Aftercare & Convalescence	6.07	0.3309	Misc Pediatric	Misc Adult
1206	862-2	Other Aftercare & Convalescence	8.72	0.5486	Misc Pediatric	Misc Adult
1207	862-3	Other Aftercare & Convalescence	10.97	0.8146	Misc Pediatric	Misc Adult
1208	862-4	Other Aftercare & Convalescence	12.54	1.2084	Misc Pediatric	Misc Adult
1209	863-1	Neonatal Aftercare	9.37	0.5665	Neonate	Neonate
1210	863-2	Neonatal Aftercare	17.46	1.7303	Neonate	Neonate
1211	863-3	Neonatal Aftercare	26.91	3.3374	Neonate	Neonate
1212	863-4	Neonatal Aftercare	42.94	8.2907	Neonate	Neonate
1213	890-1	Hiv W Multiple Major Hiv Related Conditions	1.5	1.0357	Misc Pediatric	Misc Adult
1214	890-2	Hiv W Multiple Major Hiv Related Conditions	7.26	1.3409	Misc Pediatric	Misc Adult
1215	890-3	Hiv W Multiple Major Hiv Related Conditions	9.57	1.9293	Misc Pediatric	Misc Adult
1216	890-4	Hiv W Multiple Major Hiv Related Conditions	14.35	3.9123	Misc Pediatric	Misc Adult
1217	892-1	Hiv W Major Hiv Related Condition	6.04	0.6113	Misc Pediatric	Misc Adult
1218	892-2	Hiv W Major Hiv Related Condition	5.93	1.049	Misc Pediatric	Misc Adult
1219	892-3	Hiv W Major Hiv Related Condition	7.18	1.3197	Misc Pediatric	Misc Adult
1220	892-4	Hiv W Major Hiv Related Condition	10.69	2.3598	Misc Pediatric	Misc Adult

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APR DRGs and Medicaid Care Categories

Count	APR DRG	APR DRG Description	ALOS	Relative Weight	MCC Pediatric	MCC Adult
1221	893-1	Hiv W Multiple Significant Hiv Related Conditions	3.58	0.6318	Misc Pediatric	Misc Adult
1222	893-2	Hiv W Multiple Significant Hiv Related Conditions	5.4	0.9623	Misc Pediatric	Misc Adult
1223	893-3	Hiv W Multiple Significant Hiv Related Conditions	7.53	1.3895	Misc Pediatric	Misc Adult
1224	893-4	Hiv W Multiple Significant Hiv Related Conditions	13.18	2.7063	Misc Pediatric	Misc Adult
1225	894-1	Hiv W One Signif Hiv Cond Or W/O Signif Related Cond	3.48	0.6253	Misc Pediatric	Misc Adult
1226	894-2	Hiv W One Signif Hiv Cond Or W/O Signif Related Cond	4.21	0.7854	Misc Pediatric	Misc Adult
1227	894-3	Hiv W One Signif Hiv Cond Or W/O Signif Related Cond	5.67	1.1313	Misc Pediatric	Misc Adult
1228	894-4	Hiv W One Signif Hiv Cond Or W/O Signif Related Cond	8.36	2.0813	Misc Pediatric	Misc Adult
1229	910-1	Craniotomy For Multiple Significant Trauma	7	3.3831	Misc Pediatric	Misc Adult
1230	910-2	Craniotomy For Multiple Significant Trauma	7.64	3.8572	Misc Pediatric	Misc Adult
1231	910-3	Craniotomy For Multiple Significant Trauma	10.82	4.9809	Misc Pediatric	Misc Adult
1232	910-4	Craniotomy For Multiple Significant Trauma	19.27	10.0488	Misc Pediatric	Misc Adult
1233	911-1	Extensive Abdominal/Thoracic Procedures For Mult Significant Trauma	6.4	1.3118	Misc Pediatric	Misc Adult
1234	911-2	Extensive Abdominal/Thoracic Procedures For Mult Significant Trauma	6.08	2.02	Misc Pediatric	Misc Adult
1235	911-3	Extensive Abdominal/Thoracic Procedures For Mult Significant Trauma	8.5	3.0422	Misc Pediatric	Misc Adult
1236	911-4	Extensive Abdominal/Thoracic Procedures For Mult Significant Trauma	17.92	7.9371	Misc Pediatric	Misc Adult
1237	912-1	Musculoskeletal & Other Procedures For Multiple Significant Trauma	5.84	2.2796	Misc Pediatric	Misc Adult
1238	912-2	Musculoskeletal & Other Procedures For Multiple Significant Trauma	6.2	2.3347	Misc Pediatric	Misc Adult
1239	912-3	Musculoskeletal & Other Procedures For Multiple Significant Trauma	10.12	3.8261	Misc Pediatric	Misc Adult
1240	912-4	Musculoskeletal & Other Procedures For Multiple Significant Trauma	18.81	7.6401	Misc Pediatric	Misc Adult
1241	930-1	Multiple Significant Trauma W/O O.R. Procedure	3.45	0.8025	Misc Pediatric	Misc Adult
1242	930-2	Multiple Significant Trauma W/O O.R. Procedure	4.03	1.0493	Misc Pediatric	Misc Adult
1243	930-3	Multiple Significant Trauma W/O O.R. Procedure	6.17	1.7118	Misc Pediatric	Misc Adult
1244	930-4	Multiple Significant Trauma W/O O.R. Procedure	11.96	4.3722	Misc Pediatric	Misc Adult
1245	950-1	Extensive Procedure Unrelated To Principal Diagnosis	3.23	1.4078	Misc Pediatric	Misc Adult
1246	950-2	Extensive Procedure Unrelated To Principal Diagnosis	6.55	2.1309	Misc Pediatric	Misc Adult
1247	950-3	Extensive Procedure Unrelated To Principal Diagnosis	11.86	3.4336	Misc Pediatric	Misc Adult
1248	950-4	Extensive Procedure Unrelated To Principal Diagnosis	22.27	6.8538	Misc Pediatric	Misc Adult

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APR DRGs and Medicaid Care Categories

Count	APR DRG	APR DRG Description	ALOS	Relative Weight	MCC Pediatric	MCC Adult
1249	951-1	Moderately Extensive Procedure Unrelated To Principal Diagnosis	2.86	0.9841	Misc Pediatric	Misc Adult
1250	951-2	Moderately Extensive Procedure Unrelated To Principal Diagnosis	5.05	1.4632	Misc Pediatric	Misc Adult
1251	951-3	Moderately Extensive Procedure Unrelated To Principal Diagnosis	9.77	2.4343	Misc Pediatric	Misc Adult
1252	951-4	Moderately Extensive Procedure Unrelated To Principal Diagnosis	17.21	5.0074	Misc Pediatric	Misc Adult
1253	952-1	Nonextensive Procedure Unrelated To Principal Diagnosis	2.59	0.753	Misc Pediatric	Misc Adult
1254	952-2	Nonextensive Procedure Unrelated To Principal Diagnosis	4.81	1.1377	Misc Pediatric	Misc Adult
1255	952-3	Nonextensive Procedure Unrelated To Principal Diagnosis	9.53	2.0565	Misc Pediatric	Misc Adult
1256	952-4	Nonextensive Procedure Unrelated To Principal Diagnosis	17.27	4.4282	Misc Pediatric	Misc Adult
1257	955-0	Principal Diagnosis Invalid As Discharge Diagnosis	-	(1.0000)	Error DRG	Error DRG
1258	956-0	Ungroupable	-	(1.0000)	Error DRG	Error DRG

Notes:

1. Medicaid Care Category (MCC) is a categorization algorithm developed by Xerox for analyses such as these. They are aligned with both the policy areas of a typical Medicaid program and the internal organization of a typical hospital to allow insight into utilization and cost for services paid for Medi-Cal beneficiaries.
2. Average length of stay and casemix relative values were calculated from the Nationwide Inpatient Sample by 3M Health Information Systems for APR-DRG V.29.
3. Average length of stay is the untrimmed arithmetic value.

Endnotes

[1] The bill also made changes to §14105.281, but these were effectively repealed by Senate Bill 90 in the 2011-2012 legislature.

[2] See, for example, Robert F. Coulam and Gary L. Gaumer, "Medicare's Prospective Payment System: A Critical Appraisal," *Health Care Financing Review,* Annual Supplement 12 (1991), pp. 45–77; Rick Mayes and Robert A. Berenson, *Medicare Prospective Payment and the Shaping of U.S. Health Care* (Baltimore: Johns Hopkins, 2008); and Louise B. Russell, *Medicare's New Hospital Payment System: Is It Working?* (Washington, DC: Brookings, 1989).

[3] Section 1115(a), Title XIX of the Social Security Act, Medicaid Demonstration, enabled Medi-Cal Hospital/Uninsured Care Demonstration Project Act (Waiver 11-W-0001 93/9). Other State law and regulations governing the SPCP are set forth in Welfare and Institutions Code sections 14081 et seq. and 14166 et seq., and California Code of Regulations, Title 22, Section 51541.

[4] Sources include California Medical Assistance Commission, "Annual Report to the Legislature 2011" downloaded June 6, 2011 from www.cmac.ca.gov/annual.asp; California Department of Health Care Services, "Current Reimbursement for Medi-Cal FFS Inpatient Service at an SPCP Hospital," provided by DHCS staff in April 2011.

[5] California Department of Health Care Services, "Non-contract Reimbursement," provided by DHCS staff on April 2011.

[6] Medi-Cal Provider Manual, Part 2-Inpatient Services, Medicare/Medi-Cal Crossover Claims: Inpatient Services (medi cr ip)

[7] Xerox State Healthcare, LLC, *Medicaid Value Purchasing: Ten Ideas for Containing Cost while Maintaining Access* (Atlanta, GA: Xerox, October 2012), p. 20. Available at www.acs-inc.com/ov_medicaid_value_purchasing_ten_ideas.aspx

[8] Medi-Cal Provider Manual, Part 2-Inpatient Services, California Children's Services Program (June 2004), p. cal child 1

[9] Medi-Cal Provider Manual, Part 2-Genetically Handicapped Persons Program (May 2011) pp. genetic 1-10

[10] Social Security Act §1927(b)(4)(D). See also SSA §1932(b)(2).

[11] Department of Health Care Services, *Replacement of Roger's Rate: All Plan Letter 13-004*, February 12, 2013.

[12] Xerox State Healthcare, *Medi-Cal DRG Project: Base Prices for Implementation July 1, 2013* (West Sacramento, CA: May 2013), especially Section 3.1.

[13] CMS, 100% MEDPAR Inpatient Hospital National Data for Fiscal Year 2008, available at www.cms.gov/MedicareFeeforSvcPartsAB/03_MEDPAR.asp. The mothers may qualify for Medicare because of disability, but their newborns do not.

[14] CMS, "Medicare Program; Changes to the Hospital Inpatient Prospective Payment Systems and Fiscal Year 2005 Rates; Final Rule," *Federal Register* 69:154 (Aug. 11, 2004), p. 48939.

[15] CMS, "Medicare Program; Changes to the Hospital Inpatient Prospective Payment Systems and Fiscal Year 2008 Rates; Final Rule," *Federal Register* 72:162 (Aug. 22, 2004), p. 47158.

[16] John Muldoon, "Pediatrics and DRG Casemix Classification," in Norbert I. Goldfield, ed., *Physician Profiling and Risk Adjustment,* first edition (Gaithersburg, MD: Aspen Publishers, 1997).

[17] John H. Muldoon, "Structure and Performance of Different DRG Classification Systems for Neonatal Medicine," *Pediatrics* 103:1 (January 1999), pp. 302-318. The study referred to the previous CMS-DRG grouper. However, Medicare has not updated the grouping logic for newborns, so the problem persists with MS-DRGs.

[18] Richard F. Averill, John H. Muldoon, James C. Vertrees et al., "The Evolution of Casemix Measurement Using Diagnosis-Related Groups," in *Physician Profiling and Risk Adjustment*, 2d ed., ed. Nobert I. Goldfield (Gaithersburg, Md.: Aspen, 1999), pp. 391–454.

[19] Kevin Quinn, "New Directions in Medicaid Payment for Hospital Care," *Health Affairs* 27:1 (January/February 2008), pp. 269-280. This evaluation compared APR-DRGs with CMS-DRGs. Because MS-DRGs were developed only for a Medicare population, it would be very unlikely for MS-DRGs to perform better than CMS-DRGs if the evaluation were to be re-done.

[20] The change as of October 1, 2012, was to add 00.95 (Injection or infusion of glucarpidase). The drug is used in cancer treatment. The changes as of October 1, 2013, are to add 00.96 (Infusion of 4-Factor Prothrombin Complex Concentrate), 14.81 (Implantation of epiretinal visual prosthesis), 14.82 (Removal of epiretinal visual prosthesis), 14.83 (Revision or replacement of epiretinal visual prosthesis).

[21] Centers for Medicare and Medicaid Services, *Federal Register* 77:172 (September 15, 2012), pp. 54665, 54720

[22] Centers for Medicare and Medicaid Services, "ICD-10-CM/PCS: An Introduction." (April 2010), downloaded from https://www.cms.gov/ICD10/Downloads/ICD-10Overview.pdf

[23] Because of the central limit theorem, 30 stays is commonly, though informally, used as a threshold in defining whether a relative weight is stable. The question is whether the sample mean (i.e., DRG-specific resource use cost in one year) is likely to be a stable indication of the population mean (i.e., DRG-specific resource use in a broader time period). Lowering the threshold would enable more DRGs to be defined as stable but the essential problem of unstable relative weights for several hundred DRGs would remain.

[24] Barbara O. Wynn and Molly Scott, *Evaluation of Alternative Methods to Establish DRG Relative Weights,* Report to the Centers for Medicare and Medicaid Services (Santa Monica, CA: RAND, April 2008).

[25] Corroborating evidence can be found by comparing Medi-Cal average length of stay with national benchmarks by APR-DRG. In general, the two sets of figures line up very closely, with the exception of APR-DRG 640-2 discussed in the next footnote.

[26] The anomaly is that a notable number of stays that grouped to this low-level DRG had unexpectedly high charges and length of stay, indicating that the patient was much sicker than the diagnoses and procedures shown on the claim would indicate.

[27] Kevin Quinn and Martin Kitchener, "Medicaid's Role in the Many Markets for Health Care," *Health Care Financing Review* 28:4 (Summer 2007), pp. 69-82.

[28] California Welfare and Institutions Code §14105.28(b)(2)(J)

[29] Values reflect the wage indices available during the design of the payment method (FFY 2012 Medicare wage indices, effective October 1, 2011). At the end of January 2013, DHCS established hospital-specific base prices using the FFY 2013 Medicare wage indices (effective October 1, 2012).

[30] In FY 14, the Medicare inpatient labor-related share changed to 69.6% if the wage area index value is 1.00 or more. Medicare rebased and revised FY 2010 market basket (previously it was 68.8%). *Federal Register* 78:160 (August 18, 2013), pp. 50596-50607.

[31] For purposes of the design of the payment method, we used an illustrative statewide DRG base price. At the end of January 2013, DHCS developed the statewide DRG base prices and the hospital-specific base prices that were implemented on July 1, 2013.

[32] Institute of Medicine, *Geographic Adjustment in Medicare Payment; Phase I: Improving Accuracy,* second edition (Washington, DC: IOM, September 2011)

[33] *Geographic Adjustment in Medicare Payment,* p. 1-9.

[34] www.cms.gov/AcuteInpatientPPS/FR2012/ then "Impact File"

[35] For a complete list of hospital-specific wage area index values used in ratesetting at the end of January 2013, please see the Medi-Cal APR-DRG Calculator posted on the DRG webpage at http://www.dhcs.ca.gov/provgovpart/Pages/DRG.aspx.

[36] Number of stays is based on calendar year 2009 simulation baseline dataset, which was used during the design phase of the payment method and includes non-designated public hospitals.

[37] U.S. Department of Health and Human Services, *Report to Congress: Plan to Reform the Medicare Wage Index* (Washington, DC: DHHS, 2012).

[38] CCH, *2011 Medicare Master Guide* (Chicago: Wolters Kluwer, 2011), pp. 757-851.

[39] Kevin Quinn, "How Much Is Enough? An Evidence-Based Framework for Setting Medicaid Payment Rates," *Inquiry* 44 (Fall 2007), pp. 247-256.

[40] Xerox comparison of the simulation baseline dataset with American Hospital Association data, taking into account the exclusion of normal newborns from the AHA definition of discharge and assuming that the share in 2013 will be similar to what the share would have been in 2009. The Medi-Cal fee-for-service contribution to hospital inpatient would be lower than 12% because Medi-Cal volume includes large numbers of obstetric and normal newborn stays, which have lower-than-average casemix.

[41] California Welfare and Institutions Code §14105.28(b)(1)(a)(i)

[42] At the end of January 2013, DHCS developed the statewide DRG base prices and the hospital-specific base prices to be implemented on July 1, 2013. The unadjusted DRG base price for remote rural hospitals was calculated at $10,218.

[43] At the end of January 2013, DHCS developed the statewide DRG base prices and the hospital-specific base prices to be implemented on July 1, 2013. The wage area and wage index value were updated for all hospitals using the FFY 2013 Medicare Impact File, effective October 1, 2012. The FFY 2013 rural wage index for California is 1.2282. The FFY 2014 rural wage index for California is 1.2477.

[44] These include cost outlier payments, transfer adjustments, partial eligibility adjustments, etc. They are not relevant for purposes of this section.

[45] Sources include the following:

- Board of Trustees of the Medicare Trust Funds, *Review of Assumptions and Methods of the Medicare Trustees' Financial Projections*, Technical Review Panel on the Medicare Trustees Reports (Baltimore: Board of Trustees, 2000), p. 23
- Board of Trustees of the Medicare Trust Funds, *2011 Annual Report of the Boards of Trustees of the Federal Hospital Insurance Trust Fund and the Federal Supplementary Medical Insurance Trust Fund* (Washington, DC: Board of Trustees, 2010) p. 157
- Medicare Payment Advisory Commission, *Report to the Congress, Medicare Payment Policy* (Washington, DC: MedPAC, March 2006), p. 52
- Grace M. Carter, Joseph P. Newhouse and Daniel A. Relles, "How Much Change in the Casemix Index Is DRG Creep?" *Journal of Health Economics* (1990), pp. 411-428
- Bruce Steinwald and Laura A. Dummit, "Hospital Case-mix Change: Sicker Patients or DRG Creep?" *Health Affairs*, 8:2 (1989), pp. 35-47

[46] Medicare Payment Advisory Commission, *Comment Letter on Proposed Changes to the Hospital Inpatient Prospective Payment Systems for Acute Care Hospitals,* June 17, 2011, p. 6

[47] PriceWaterhouseCoopers LLC, *The Financial Health of California Hospitals* (Oakland, CA: California HealthCare Foundation, 2007), pp. 4-14.

[48] American Health Information Management Association, *Code of Ethics* §IV. See in particular §IV.4.6 of the interpretive guidelines.

[49] CMS, "Medicare Program; Changes to the Hospital Inpatient Prospective Payment Systems and Fiscal Year 2012, Final Rule." *Federal Register* 76:160 (August 18, 2011), p. 51553 (hereafter, *FFY 2012 Final Rule)*.

[50] CMS, "Medicare Program; Changes to the Hospital Inpatient Prospective Payment Systems and Fiscal Year 2008 Rates; Final Rule." *Federal Register* 72:162 (Aug. 22, 2007), p. 47181.

[51] For a Medicare population, APR-DRGs were found to be more accurate than CMS-DRGs or MS-DRGs. See Barbara O. Wynn and Molly Scott, *Evaluation of Severity-Adjusted DRG Systems: Addendum to the Interim Report*, Report to CMS (Santa Monica, CA: RAND Corp., July 2007), p. 13. For a Medicaid population, APR-DRGs were found to be more accurate than CMS-DRGs. A comparison between APR-DRGs and MS-DRGs has not been done but very likely would have the same result. See Kevin Quinn, "New Directions in Medicaid Payment for Hospital Care," *Health Affairs* (January/February 2008), p. 275.

[52] A notable example of CDIPs and hospital coding efforts is Shands Hospital in Jacksonville, FL, where clinical documentation improvement specialists routinely "shadow" physicians "seeking clarification in real-time and making recommendations for how physicians can fine-tune documentation to enable more accurate coding." Chris Dimick, "Shadowing Physicians for Documentation Improvement" AHIMA Body of Knowledge Blog Post, (9/1/09). Also see Genna Rollins, "Clinical Documentation Improvement: Gauging the Need, Starting Off Right," *Journal of AHIMA* 80:9 (September 2009), pp. 24-29.

[53] *Medi-Cal DRG Project: Summary of Analytical Dataset,* Section 2.5

[54] *Medi-Cal DRG Project: Summary of Analytical Dataset,* Table 4.2.2

[55] Technical reasons for excluding claims include DRG grouping errors, zero charges or payments, out-of-scope hospital types, incomplete stays, etc. See Table 1.13.1.

[56] *Medi-Cal DRG Project: Summary of Analytical Dataset,* Section 2.2

[57] *Medi-Cal DRG Project: Summary of Analytical Dataset,* Section 2.5

[58] Maryland Health Services Cost Review Commission, *Casemix Growth in FY 2006*, (Baltimore, MD: HSCRC, November 2, 2005); Maryland Health Services Cost Review Commission, *Minutes, October 11, 2006* (Baltimore, MD: HSCRC); Maryland Health Services Cost Review Commission, *Staff Recommendation Regarding FY 2006 Casemix Distributions and Adjustments Relating to the 1.0% Inpatient to Outpatient Shift,* (Baltimore, MD: HSCRC Staff, January 3, 2007)

[59] Maryland Health Services Cost Review Commission, *Final Recommendation on Casemix Adjustments for FY 2008* (Baltimore, MD: HSCRC, April 9, 2008).

[60] Ibid, p. 3

[61] Staff noted that outpatient casemix continues to grow as low intensity cases are moved to outpatient settings. Maryland Health Services Cost Review Commission, *Final Staff Recommendation and Discussion Document Regarding the FY 2012 HSCRC Hospital Payment Update,* (Baltimore, MD: HSCRC, April 15, 2011), pp. 11-12.

[62] Rick Mayes and Robert A. Berenson, *Medicare Prospective Payment and the Shaping of U.S. Health Care* (Baltimore: Johns Hopkins University Press, 2006), p. 49.

[63] Steinwald and Dummit, p. 38.

[64] Mayes and Berenson, p. 116; U.S. Department of Health and Human Services, Office of Inspector General, *Using Software to Detect Upcoding of Hospital Bills,* OEI-01-97-00010 (August 1998); U.S. Department of Health and Human Services, Office of Inspector General, *Monitoring the Accuracy of Hospital Coding,* OEI-01-98-00420, (January 21, 1999)

[65] CMS, *IPPS FY 2008 Rates Final Rule,* p. 47186. The 1.2 percent figure understates the expectation on the part of CMS. The blending of relative weights from Version 24 to Version 25 reduced the sensitivity of payments to documentation and coding improvement by 50 percent, so the 1.2 percent figure reflects a CMS expectation that documentation and coding improvement would have a 2.4 percent impact.

[66] American Hospital Association, "Comment Letter" (re FFY 2008 inpatient hospital prospective payment system proposed rule), (Chicago: AHA, June 4, 2007), pp. 6-8.

[67] The law was section 7 of the TMA, Abstinence Education, and QI Programs Extension Act of 2007 (P.L. 110-90). Regarding the consequent regulatory changes, see Centers for Medicare and Medicaid Services, "Medicare and Medicaid Programs; Interim and Final Rule," *Federal Register* 72:227 (Nov. 27, 2007), pp. 66886-66893.

[68] CMS, "Medicare Program; Hospital Inpatient Prospective Payment Systems for Acute Care Hospitals and Long-Term Care Hospitals Prospective Payment System Changes and Fiscal Year 2013 Rates; Final Rule," *Federal Register* 77:170 (August 31, 2012), pp. 53273-53280 (hereafter, *FY 2013 Final Rule*).

[69] Medicare Payment Advisory Commission, "Comment Letter" (re FFY 2013 inpatient hospital prospective payment system proposed rule), (Washington, DC: MedPAC, June 22, 2012)

[70] CMS, *FY 2013 Final Rule*, p. 53275.

[71] Medicare Payment Advisory Commission, *Report to the Congress: Medicare Payment Policy* (Washington, DC: MedPAC, March 2011), pp. 37-40, 49.

[72] CMS, *FY 2013 Final Rule*, p. 53278.

[73] www.dpw.state.pa.us/ucmprd/groups/webcontent/documents/communication/p_011783.pdf

[74] Mississippi Division of Medicaid, "DRG Payment in Mississippi, Provider Training August-October 2012", slides 11 and 24. Downloaded 3/13/13 from http://www.medicaid.ms.gov/HospitalInpatientAPR-DRGPayment.aspx

[75] Navigant report for Florida Agency for Health Care Administration, *DRG Conversion Implementation Plan, (*December 21, 2012), pp. 62-67. Downloaded 3/11/13 from www.fdhc.state.fl.us/Medicaid/cost_reim/pdf/DRG_Payment-Conversion_Implementation_Plan-FL_AHCA-Final.pdf

[76] A payment simulation done in May 2012 provides illustrative numbers; changes to the simulation would not affect this result. Total payment for 446,715 stays in the simulation dataset was $2.63 billion, or $5,892 per stay. Average casemix was 0.6108. Other things equal, an increase in casemix to 0.6208 would increase payment by 1.64%, that is, to $2.68 billion.

[77] AHA, "Comment Letter" (re FFY 2008 proposed rule), p. 1.

[78] American Hospital Association, *AHA Hospital Statistics 2011* (Chicago: AHA, 2011), p. 59.

[79] The list of hospitals in this category included two rehabilitation hospitals with stays in the simulation dataset. It is possible that at least some of these stays will be billed as rehabilitation rather than acute care after July 1, 2013.

[80] See Section 2.7 of the *Summary of the Analytical Dataset*, December 2011.

[81] Medicare Learning Network (MLN) Matters, SE 0801, revised September 12, 2010. Downloaded from http://www.cms.gov/MLNMattersArticles/downloads/SE0801.pdf

[82] Department of Health Care Services, *Replacement of Roger's Rate: All Plan Letter 13-004*, February 12, 2013.

[83] Hospital bills to Medicaid rarely include non-covered charges, (UB-04 Form locator 48) so in practice billed charges and covered charges are almost always the same amount. Nevertheless, when there is a difference it would be inappropriate to consider the cost of patient convenience items and other non-covered services when determining eligibility for cost outlier payment. Medi-Cal does not require non-covered charges to be submitted, but does require total charges (UB-04 Form Locator 47).

[84] DRG base payment is after transfer adjustment, if applicable.

[85] The default CCR would be used by DHCS staff entering a new hospital into the provider master file. The default CCR would not be a parameter in CA-MMIS. Any hospital record in the provider master file without a CCR value without a CCR value would generate an error.

[86] Rebecca R. Roberts, Paul W. Frutos, Ginevra G. Ciavarella et al, "Distribution of Variable vs. Fixed Costs of Hospital Care.," *Journal of the American Medical Association* 281:7 (1999), pp. 644-649.

[87] For the eight state-specific reports released in fiscal years 2005 and 2006 go to www.oig.hhs.gov/oas/cms.asp. For more recent projects see the U.S. Department of Health and Human Services, Office of Inspector General, "Work Plan Fiscal Year 2012" (Washington, DC: DHHS), Part III Medicaid Reviews, located at www.oig.hhs.gov/reports-and-publications/workplan/index.asp

[88] Developers of DRG systems have sometimes dealt with this grouping issue by using death as one of the factors in assigning the DRG. APR-DRGs, however, are also used as a risk adjustor in measuring mortality rates, so death never factors into the group assignment, and to include it would be circular.

[89] Medi-Cal Provider Manual, Part 2 Other Health Coverage (September 2008), pp. othhlth 1-8

[90] Medi-Cal Provider Manual, Part 2 Share of Cost (May 2009), pp. share1-8 and Part 2 Share of Cost: UB-04 Inpatient Services (May 2007) pp. share ip 1-4

[91] California State Medicaid Plan, Attachments 4.18-A and 4.18-C (TW 85-18, approved February 18, 1986)

[92] CCH, "2011 Master Medicare Guide" (Chicago: Wolters Kluwer, 2011), pp. 814-816.

[93] See Section 2.4.2 of the *Summary of the Analytical Dataset*¸ December 2011.

[94] Medi-Cal Provider Manual, "Inpatient Services, Part 2, Newborn Hearing Screening Program," (November 2010), pp. 1-2

[95] Department of Health Care Services and Children's Medical Services, "California Newborn Hearing Screening Program Provider Manual," Rev 3-2008, p.9. Hospitals bill for newborn hearing screenings as an outpatient service using HCPCS code Z9725 (Initial infant hearing screening – hospital/inpatient).

[96] Patient Protection and Affordable Care Act, Public Law 111-148, Section 2702, enacted March 23, 2010

[97] Facilities excluded from Medicare's HAC & POA payment policy include critical access hospitals (CAHs), long-term care hospitals (LTCHs), hospitals in Maryland operating under waivers, cancer hospitals, children's inpatient facilities, rural health clinics (RHCs), federally qualified health centers (FQHCs), religious nonmedical healthcare institutions (RNHCI), inpatient psychiatric facilities (IPFs), inpatient rehabilitation facilities (IRFs), and Department of Veterans Affairs and Department of Defense hospitals.

[98] CMS, "Medicaid Program; Payment Adjustment for Provider-Preventable Conditions Including Health Care-Acquired Conditions," *Federal Register,* final rule, 76:108 (June 6, 2011), p. 32817. Though the citation is to a Medicaid rule, the reference is to a Medicare HAC.

[99] Analysis based on data published by CMS, "Medicare Program; Hospital Inpatient Prospective Payment Systems for Acute Care Hospitals and the Long-Term Care Hospital Prospective Payment System Changes and FY 2012 Rates," final rule, *Federal Register* 76:160 (Aug. 18, 2011), pp. 51512–51520

[100] In FY 2011, Medicare reported similar results for FY 2009: only 0.12 percent of over 9.3 million stays included a HAC. For stays where the HAC affected the DRG assignment, payment was reduced for only 0.04 percent of stays. Analysis based on data published by CMS, "Medicare Program; Hospital Inpatient Prospective Payment Systems for Acute Care Hospitals and the Long-Term Care Hospital Prospective Payment System Changes and FY 2011 Rates," final rule, *Federal Register 75:157 (Aug. 16, 2010), pp. 5008 –50101.*

[101] Effective October 1, 2012, there are 14 HAC categories. Two new HAC categories were added: surgical site infection – cardiac implantation (CIED) and iatrogenic pneumothorax with venous catheterization.

[102] In general, designated public hospitals are outside the scope of this document. We have included them in this discussion because HCACs as a policy topic apply to both DRG hospitals and designated public hospitals.

[103] NDPHs were excluded from the dataset used in setting rates for July 1, 2013. NDPHs will transition to DRG payment starting with admissions beginning on or after January 1, 2014.

[104] We appreciate the permission received from the South Carolina Department of Health and Human Services to share this information with other states.

[105] Xerox State Healthcare LLC has no financial interest in this software.

[106] Medi-Cal is required to comply with the HCAC conditions based on Medicare's final annual hospital IPPS rule, which is published in August of each year.

[107] CMS, National Coverage Decision memoranda: "Wrong Surgical or Other Invasive Procedure Performed on a Patient" (CAG–00401N); "Surgical or Other Invasive Procedure Performed on the Wrong Body Part" (CAG–00402N); and "Surgical or Other Invasive Procedure Performed on the Wrong Patient" (CAG–00403N), January 15, 2009. Downloaded February 15, 2011 from www.cms.gov/medicare-coverage-database/indexes/national-and-local-indexes.aspx

[108] For additional information, please see CMS Manual System Pub 100-04 "Medicare Claims Processing," Transmittal 1819, September 29, 2009

[109] This will substantially reduce TAR-related administrative work for both the Department and the hospitals. We note, however, that no changes are planned in TAR requirements related to the admission itself. Approximately 170,000 stays (38% of the total) that are neither deliveries nor normal newborns will continue to require review of the medical necessity of admission.

[110] Non-contract hospitals are paid at a percentage of charges subject to cost settlement after the end of the fiscal year.

[111] A total of 196 large hospitals (over 100 beds) had long stays, with an average length of stay of 56 days. A total of 10 small hospitals (under 50 beds) had long stays, with an average length of stay of 61 days. One hospital had an uncharacteristically long stay of > 180 days, which skewed the ALOS for small hospitals.

[112] Medi-Cal Provider Manual "UB-04 Special Billing Instructions for Inpatient Services" (ub spec ip), May 2007, p.4.

[113] DHCS Bulletin, *DRG Implementation: Rehabilitation Services and Administrative Level 2 Days,* March 28, 2013.

[114] Ibid

[115] Ibid

[116] Medi-Cal Provider manual "UB-04 Special Billing Instructions for Inpatient Services" (ub spec ip), May 2007, p.2.

[117] Medi-Cal Provider Manual, "Part 2 Administrative Days," September 2009, p. admin 1

[118] During the design of the DRG payment method, DHCS analyzed the CY 2009 simulation baseline dataset. Using this data and for purposes of illustration, we considered a per diem rate of $1,211 would represent no change in payment, with an estimated pay-to-cost ratio of 117 percent (Table 5.5.1). If the pay-to-cost ratio were set at the overall state average of approximately 77 percent, then the per diem rate would be $932. Other possible ways to derive a per diem payment amount were considered, including reference to rates paid by Medicare, other Medicaid programs and other payers. Medicare pays for inpatient rehabilitation facility (IRF) services based on a prospective payment system where beneficiaries are assigned to intensive rehabilitation case-mix groups (CMGs). The PPS payment rates cover all operating and capital costs that IRFs would be expected to incur in furnishing intensive rehabilitation services. The base rate – $14,343 for fiscal year 2013[118] – is adjusted by the hospital area wage index and casemix (CMS, FFY 13 Final Rule for Inpatient Rehabilitation Facility PPS, *Federal Register* 77:146 (July 30, 2012), p.44628). In FFY 2011, Medicare payment per case for inpatient rehabilitation facility services was $17,398, with an average length of stay of 13 days, representing an average per diem rate of $1,338 (Medicare Payment Advisory Commission, *Report to the Congress: Medicare Payment Policy* (Washington, DC: MedPAC, March 2013), p. 218).

[119] DHCS Bulletin, *DRG Implementation: Rehabilitation Services and Administrative Level 2 Days,* March 28, 2013

[120] Ibid

[121] In FY 14, the Medicare inpatient labor-related share changed to 69.6% using the rebased and revised FY 2010 market basket. *Federal Register* 78:160 (August 18, 2013), pp. 50596-50607.

[122] Ibid

[123] Ibid

[124] Medi-Cal Provider Manual, "Obstetrics: Revenue Code Billing Instructions" (ob rev instr), May 2007, p.21.

[125] See also Medi-Cal Provider Manual, Obstetrics: Revenue Codes and Billing Policy (ob rev), May 2007.

[126] *Medi-Cal DRG Project: Summary of Analytical Dataset*, pp. 15-16.

[127] Robert F. Coulam and Gary L. Gaumer, "Medicare's Prospective Payment System: A Critical Appraisal," *Health Care Financing Review*, Annual Supplement 12 (1991), pp. 45–77; Rick Mayes and Robert A. Berenson, *Medicare Prospective Payment and the Shaping of U.S. Health Care* (Baltimore: Johns Hopkins, 2008); and Louise B. Russell, *Medicare's New Hospital Payment System: Is It Working?* (Washington, DC: Brookings, 1989).

[128] "Short stays" can be defined as any patient with a length of stay less than, say, 0.25 times the national average length of stay for that APR-DRG, thereby controlling for differences in casemix among patients.

[129] U.S. Department of Health and Human Services, Office of Inspector General, *Work Plan FY 2012* (Washington, DC: DHHS, 2011), available at www.oig.hhs.gov/reports-and-publications/workplan/index.asp#current.

[130] Michael Bromberg, executive director of the Federation of American Hospitals, quoted in Richard Mayes and Robert A. Berenson, *Medicare Prospective Payment and the Shaping of U.S. Health Care* (Baltimore, Johns Hopkins, 2006), p. 51.

[131] Consider a hospital with $10 million in revenue, $9.8 million in cost and $200,000 in profit. If Medicaid fee-for-service inpatient cost equals $392,000 or 4 percent of the total, then a 10 percent reduction in cost would increase profit by an additional $39,200, or 20 percent.

[132] Kevin Quinn, "Achieving Cost Control, Care Coordination and Quality Improvement in the Medicaid Program," *Journal of Ambulatory Care Management* 33:1 (January-March 2010), pp. 39-40; Kevin Quinn and Connie S. Courts, *Sound Practices in Medicaid Payment for Hospital Care* (Hamilton, NJ: Center for Health Care Strategies, 2010), pp. 9-10.

[133] The figures reflect the simulation dataset. "NICU" stays are defined by APR-DRG assignment, not necessarily by provision of care within a neonatal intensive care unit.

[134] Xerox State Healthcare LLC analysis of OSHPD data for 2009.

[135] Associated hospital cost was estimated by multiplying average hospital per day for each APR-DRG by the number of days that exceeded the national benchmark. The calculation is illustrative, not definitive. In particular, the days that can be reduced through improved length of stay management tend to be the least expensive days.

[136] DHCS Bulletin, *DRG Implementation: Rehabilitation Services and Administrative Level 2 Days,* March 28, 2013.

[137] This is the date of the final Policy Design Document approved by the Department and incorporated in the requirements for SDN 12005 - Diagnosis Related Group Pricing Methodology for Inpatient Claims.