

UCLA Health System-- Bridge to Reform Proposal for 1115 Medicaid Waiver

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Background

The UCLA Health System (UCLA) is an important healthcare resource for the 11 million residents who live within its Los Angeles County and Ventura County primary service area, especially public sector insured seniors and children. Almost 46 percent of UCLA's hospital admissions are public sector and self-funded patients. Nearly 50 percent of UCLA hospital admissions from the Westside are Medicare-age patients. Similarly, 60 percent to 70 percent of the children admitted to UCLA from South Central and downtown Los Angeles are Medi-Cal and other government-insured. Roughly 120 UCLA Health System primary care physicians care for approximately 250,000 primary service area residents. In addition, UCLA provides inpatient care to more than 40,000 patients annually. Its hospital-based and faculty-based outpatient clinics provide ambulatory care to patients who generate about 2 million visits per year.

UCLA is a leader in healthcare innovation, as exemplified by invention of the Positron Emission Technology (PET) scanner and development of the detachable coil (GDC) therapy to treat patients with acute cerebral vascular accidents (CVAs) by its faculty. UCLA serves as a regional resource for children, providing not only highly specialized care for very sick neonates and children in its intensive care units, but its pediatric subspecialists (hematologists, nephrologists, rheumatologists, gastroenterologists, etc.) are often sought out by other hospital systems to treat pediatric patients in Ventura County, Orange County and east Los Angeles County.

UCLA is a recognized resource in its primary and regional service areas for its highly specialized surgeons. For example, UCLA's surgeons perform organ transplants, trauma surgeries as demonstrated during the Chatsworth train disaster, specialized neurosurgical cases, orthopedic surgeries, and cardiac surgical procedures. With respect to the medicine disciplines, UCLA's internal medicine, family medicine and pediatric physicians provide longitudinal primary medical care to residents from Malibu to Manhattan Beach on the west side of Los Angeles County. With respect to secondary non-surgical care, UCLA neurologists have developed a stroke program, which provides telemedicine support to community hospital emergency rooms. Our hematologists/oncologists have opened satellite offices in Santa Clarita, Westlake, and Pasadena to provide residents in these communities access to high quality cancer care. Patient care by UCLA faculty physicians does not end after discharge from the UCLA Health System. UCLA's geriatric medicine physicians provide care to seniors discharged from UCLA hospitals to skilled nursing facilities.

Despite the clinical acumen and success UCLA has had historically, it is important to acknowledge that access, preventive care, and care coordination are areas which it can have a potentially greater impact than at present. With respect to access, UCLA is expanding its primary care physician network, which will enable more primary service area resident's accessibility to the UCLA Health System. In addition, UCLA primary care physicians have the expertise to play a greater role in preventive care and chronic disease management. Coordination of care, both pre- and post-acute care continues to be an issue, which UCLA's case managers continue to improve. The UCLA Health System has the core components, i.e. physicians, staff and hospitals, to have a demonstrable impact on transforming healthcare delivery to residents within its primary service area. UCLA's academic and research missions and expertise, further strengthen UCLA's potential to be a leader in healthcare transformation. The following provides additional background information about the UCLA Health System.



UCLA Health System

The Los Angeles-based UCLA Health System is one of five academic medical enterprises, which are owned and operated by The Regents of the University of California, a California constitutional corporation. The System is consists of a hospital system and the UCLA Medical Group. The UCLA Health System provides nearly all of the patient care for the UCLA campus, and serves as a platform for clinical education and research programs.

UCLA Hospital System

The UCLA Hospital System is comprised of three licensed hospitals: Ronald Reagan UCLA Medical Center, Santa Monica-UCLA Medical Center and Orthopaedic Hospital, and the Stewart and Lynda Resnick Neuropsychiatric Hospital. In addition, UCLA's Mattel Children's Hospital, a hospital within a hospital, is located within the Ronald Reagan UCLA Medical Center. Currently, the Hospital System's total bed complement is 845 beds, which will fall to approximately 800 beds next year, when the Santa Monica Hospital replacement facility is opened.

Ronald Reagan UCLA Medical Center (RUMC)

Ronald Reagan UCLA Medical Center in Westwood provides internationally recognized patient care in nearly every medical specialty and services patients from southern California, the rest of the country, and from around the world. RUMC is recognized as the largest solid-organ transplant hospital provider in the U.S. In addition, RUMC is nationally recognized in the several clinical areas, including but not limited to the neurosciences, oncology, cardiovascular sciences, urology, orthopedics, geriatrics, and gastroenterology. The hospital is also a Level I adult and pediatric trauma center and is a regional provider of NICU and PICU services. Each year, RUMC admits more than 23,000 inpatients, triages more than 40,000 emergency room patients, and provides more than three-quarters of a million visits through its outpatient clinics. Medicaid patients account for roughly 18% of RUMC's discharges and 21% of its patient days. Founded in 1955 RUMC is the primary teaching hospital for the UCLA School of Medicine (now the David Geffen School of Medicine at UCLA). The new state-of-the-art hospital has 520 large, private patient rooms, which opened in June 2008 employs 1,500 full-time physicians and roughly 6,000 support staff. The facility is one of the first total replacement hospitals built to meet to California's latest seismic safety standards.

Santa Monica-UCLA Medical Center and Orthopaedic Hospital (SM-UCLA & OH)

Santa Monica-UCLA Medical Center and Orthopaedic Hospital operates many outstanding clinical programs, including women's and children's services, emergency services and family medicine. It also serves as the clinical home of the UCLA Comprehensive Spine Center and inpatient home of the UCLA Geriatrics Program. A cornerstone of the Westside community since 1926, the 279-bed, acute-care medical center became part of the UCLA Health System in 1995. An alliance was executed between UCLA and Orthopaedic Hospital in 1998. As a result of this affiliation, Orthopaedic Hospital has a dedicated inpatient unit, where its patients, primarily pediatric Medi-Cal or uninsured patients are admitted and treated. Completion of SM-UCLA & OH's new 271-bed replacement hospital is anticipated next year.



Stewart and Lynda Resnick Neuropsychiatric Hospital (NPH)

Stewart and Lynda Resnick Neuropsychiatric Hospital at UCLA is an independently accredited and licensed hospital located on the fourth floor of the Ronald Reagan UCLA Medical Center in Westwood. The facility offers a continuum of psychiatric services across the life span in a warm and supportive environment with 74 large, private patient rooms.

Mattel Children's Hospital UCLA (Mattel)

Located within Ronald Reagan UCLA Medical Center in Westwood, Mattel Children's Hospital UCLA includes a 90-bed inpatient unit that is counted among the medical center's total of 520 beds, and an outpatient Children's Health Center. In addition to pediatric oncology services, Mattel Children's provides pediatric emergency, trauma and burn care, pediatric intensive care, neonatal intensive care, brain surgery, heart surgery (including pediatric transplants), kidney and liver transplants, pediatric mental health care and research into neuro-developmental disorders including autism. Its neonatal intensive care unit (NICU) and pediatric intensive care unit (PICU) are California Children's Services (CCS) designated regional centers, and as such, serves as a resource for community physicians and hospitals to refer very sick CCS-insured neonates and children to an academic tertiary center with a broad spectrum of specialized pediatric care.

UCLA Medical Plaza

UCLA Medical Plaza, adjacent to Ronald Reagan UCLA Medical Center, is the primary site for the Hospital System's ambulatory care, especially specialty services. It offers convenient access to a wide range of outpatient services through the more than 80 hospital-based and physician-office based specialty clinics.

UCLA Medical Group

UCLA Medical Group is composed primarily of the 1,500 full-time UCLA faculty physicians of the David Geffen School of Medicine at UCLA. Through its clinical physician specialists, the Medical Group provides specialty services for patients who reside in UCLA's large regional service area and beyond. The Medical Group has a network of community physician offices, which provide primary care to residents from Malibu to Manhattan Beach and on the West Side.

UCLA physicians are world leaders in the diagnosis and treatment of complex illnesses, and are on the cutting edge of biomedical research. UCLA's doctors and scientists are leaders in performing pioneering work across an astounding range of disciplines, from organ transplantation and cardiac surgery to neurosurgery and cancer treatment, and bringing the latest discoveries to virtually every field of medicine.

The UCLA Medical Group and other David Geffen School of Medicine have historically demonstrated a commitment to the community. Most notably:

- UCLA physicians and residents provide volunteer coverage at the Venice Family Clinic, the largest free clinic in the nation;
- The UCLA Department of Family Medicine provide asthma screening at the Sun Valley Community Health Center;
- UCLA faculty and medical students staff health fairs in Lennox, a community of largely underserved Latino residents;
- UCLA and Charles Drew University of medicine operate a clinic for the underserved adult and pediatric population in South Los Angeles.

Executive Summary

In this proposal, the UCLA Health System will address the following challenges:

- Access to high quality primary care and specialty care is inadequate, particularly for the uninsured and for children with complex chronic conditions;
- Patients do not receive well-coordinated care across primary, specialty, inpatient, and community care domains. As a result, patients may return to the emergency department or hospital for preventable reasons;
- Providing high-quality, chronic disease management care for individuals living with one or more illnesses such as heart failure, coronary artery disease (CAD), diabetes, chronic obstructive pulmonary disease (COPD), and asthma is a challenge in the current system.
- In California, Hispanics represent 36% of the population, yet only 5% of the physician workforce, perpetuating the health care disparities in California's underserved Hispanic areas.
- Hospital inpatient complications are a major source of adverse health care outcomes and can lead to preventable injuries and infections. The UCLA Health System has a strong focus on preventing these avoidable complications.

To do this, the UCLA Health System will establish a five-year implementation plan that includes targeted investments, enhancements, and outcome measurement/milestones in the following key areas:

- 1. **Medical Home**: Development of a medical home model to enhance primary care access and care coordination to our adult and pediatric patients;
- 2. **Chronic Disease Management**: Enhancement of high-quality disease management and coordination of care for complex illnesses beginning with heart failure, with expansion to other major chronic diseases such as CAD, diabetes, COPD, and asthma. Problems of avoidable admissions for these chronically ill patients via remote management will be included as well;
- 3. Expanded access to specialty care: Enhancement of access to critical specialty care or a cohort of patients who current lack timely consultation and treatment;



- 4. **Decision Support**: Enhance the health information technology infrastructure to allow for point-of-care decision support for medication management for patients with type 2 diabetes with expansion to other diagnoses as appropriate;
- 5. **Culturally Competent Care**: Ensure the preparation of bilingual (English-Spanish) International Medical Graduates to become eligible for licensure and residency training in California;
- 6. **Inpatient Quality Indicators**: Improve inpatient quality indicators and overall patient safety for central line-associated blood stream infections, hospital-acquired pressure ulcers, and stroke management.

As a result of this plan, the UCLA Health System will reform its delivery system by improving patient care in an effective and efficient manner - leading to an improvement in access, quality, and a reduction in overall health care costs, with particular emphasis on those in underserved communities. These programs will be further detailed in Sections 1-4 below.



CATEGORY 1

Project 1: Increase Training of Primary Care Workforce with Culturally Competent Physicians

Goal:

• Key Challenge:

A 2007 University of California report on the health professions workforce entitled *A Compelling Case for Growth* predicted that California will face a physician shortage of up to 17,000 by 2015. It is currently facing a sizeable shortage of primary care physicians, primarily for adult patients. This is likely to grow worse not only because of the resultant demand of millions of newly insured Californians under Health Care Reform but also because of the ageing of the population as well as the impending retirement of a large number of primary care physicians.

Further, it expressed concern about the lack of racial and ethnic diversity in the physician workforce, citing the landmark study by the Institute of Medicine (IOM) which found that diversity is associated with improved access to care for racial and ethnic minority patients, and greater patient choice and satisfaction." Finally the report commented on the language and cultural barriers that minority and immigrant populations face. Given that 28% of California's population are immigrants, more than twice the national rate of 12.5%, the IOM's concern about these barriers is especially significant to the provision of health services to our non- English speaking population.

California's 13.5 million Hispanics face both financial and geographic barriers to care. Almost one-third lack health insurance and more than three million reside in federally designated Health Professional Shortage Areas (HPSAs) for primary care. This lack of geographic access to basic care results in delayed care, preventable hospitalizations, and inappropriate ED utilization throughout the UCLA Health Care System. Further, California has almost seven million people with limited English proficiency (LEP) (US Census 2008); of these, more than 4.7 million are Hispanics. Closely linked to these language barriers are cultural barriers, which further amplify the impact of financial and geographic barriers, faced by Hispanics. The resultant miscommunication and misunderstandings, which often occurs leads to medical errors thereby impacting compliance and the quality and safety of their care.

The Institute of Medicine has documented that a diverse physician workforce results in fewer medical errors, better outcomes and higher patient satisfaction if the workforce mirrors, to some degree, the population being served. This has not been achieved in California as Hispanics represent 36% of the state's population yet only 5.2 percent of its physician workforce (AMA Masterfile, 2009). In spite of many university outreach programs to disadvantaged and minority communities aimed at increasing the number of Hispanics entering the health professions, only 134 Hispanics (9.6%) of the 1400 medical students graduated from the state's ten medical schools last year. This is insufficient to meet the needs of California's growing Hispanic population. Whereas the high school drop out rate for Hispanics is more than double that of non-Hispanic whites and only 12 percent of Hispanic 22 year-olds earn a Baccalaureate degree, the large underrepresentation of Hispanic physicians relative to the Hispanic population of California is not likely to narrow quickly.



• Solution:

We propose developing a unique and ambitious program to educate unlicensed, Hispanic, International Medical Graduate physicians (IMGs), legally residing in the United States, to pass US licensing exams and obtain a position in a Family Medicine residency program in California. This program will be free of charge to the individuals, and they will have a three-year commitment to practice in an underserved California community following their residency.

• Expected Outcome:

This program will improve geographic misdistribution of physicians in California by training culturally-sensitive physicians; ultimately, this program will improve the health of large populations in California currently without access to culturally appropriate medical care. Because of the long lead-time to increase medical school enrollment, this is the fastest way possible to increase the number of Hispanic physicians in California.

Relation to Category 3 Population-Focused Improvement:

Trainees in this program will receive education on medical home and quality/performance improvement concepts. Thus, when training is completed, they will be equipped to practice in the medical home model or accountable care organization of the future.

CATEGORY 1: Project 1. Increase Training of Primary Care Workforce of Culturally Competent Physicians					
Year 1	Year 2	Year 3	Year 4	Year 5	Other Projects This Feeds Into
 Milestone: Develop International Medical Graduate Program including curriculum, development of the application process, marketing of the program to identify potential applicants, and an assessment process. Metric: Program documentation Process measure a. "Expand the primary 	 Milestone: Enroll initial class of 12-14 IMGs Metric: Program documentation Measure: Increase primary care training and/or rotations (must select one of the following metric): Metric: Increase the number of primary care residents and/or trainees, as measured by numbers of class 	 Milestone: Enroll second International Medical Graduate class size of 12-14 Metric: Program documentation Milestone: Include IMGs in primary care quality improvement projects Metric: Program documentation Metric: Include trainees/rotations in 	 Milestone: Enroll third International Medical Graduate class size of 12-14 Metric: Program documentation 	Milestone: NA	 Chronic disease management (Cat. 2) Medical Home (Cat. 2)



care residency, mid- level provider, and/or other clinician staff training programs. 1. Documentation of agreements to expand training program meroliment by class by year by primary care training program superset p. 15size over baseline. traines may include physician, mid-level providers (physician assistants and nurse practitioners), and/or Documented enrollment by class by year by primary care the goal is to increase the primary care in the health care system by increasing training or primary care in the health care system by increasing training or the primary care workforce in California. (Superset p. 17)size over baseline. Traines and increasing training of the primary care workforce in California. (Superset p. 17)quality improvement primary care workforce in California. (Superset p. 17)Milestone: Develop mentoring programMilestone: Develop mentoring programquality improvement has been linked to trainee satisfaction with primary care. (Superset p. 16)
 with primary care faculty and new trainees. Metric: Program documentation (Superset p. 16 ii.a.)



Project 2: Expand Specialty Care Capacity: Venice Family Clinic Uninsured Cohort

Goal:

• Key Challenge:

The Venice Family Clinic (VFC) is recognized as the largest free clinic in the United States. Founded in 1970, the Clinic provides comprehensive primary health care, specialty care, dental care, mental health services and health education and child development services to more than 24,400 patients, including 6,600 children who make 106,000 visits annually. Venice Family Clinic has a staff of 225 members and more than 2,000 volunteers. VFC has seven clinical sites: Frederick R. Weisman Family Center, Robert Levine Family Health Center, Simms/Mann Health and Wellness Center, Culver City Youth Health Center, Santa Monica High School, OPCC Access Center and the new Irma Colen Health Center.

VFC relies on the Los Angeles County (LAC) Health System for specialty care, since most of its patients are uninsured. Access to certain specialists for the VFC patient population remains a significant issue. For example, VFC identified that five specialties were particularly problematic, with appointment wait times that range from six to sixteen months:

Specialty	Appointment Wait Time
Orthopedics	16 months
Ophthalmology	9 to 12 months
Neurology	9 to 12 months
Cardiology	9 to 12 months
Gastroenterology	6 months

In an analogous fashion, the VFC patients depend on the LAC hospital system for inpatient care and emergency department services. With the closure of the Los Angeles County Martin Luther King -Drew Hospital in August 2007, the closest LAC hospital in located in Harbor City, which is approximately 20 miles south of the Venice Family Clinic sites.

Lack of primary care access by the uninsured and underinsured leads to inappropriate use of hospital emergency departments as a primary care substitute for this disenfranchised cohort, with resultant higher than desirable costs of health care. In addition, lack of subspecialty care access for chronic disease management among the under- and uninsured populations results in greater societal expenses over time.

• Solution:

The UCLA Medical Center proposes a pilot program to improve access to specific UCLA outpatient subspecialty services (listed below) and hospitalizations to a cohort of up to 1200 uninsured, adult patients utilizing the VFC's Irma Colen Health Center as their medical home. The pilot will



also improve coordination of care and likely lower healthcare costs over a five-year period. Enrolled adults will be assigned to one of three VFC Irma Colen Health Center primary care physicians (PCPs) who will be responsible to manage the patients' health care needs. Accordingly, this PCP access should reduce unnecessary emergency department use. If an enrolled patient needs to be hospitalized, UCLA hospitalists will manage the inpatient care and communicate/coordinate the patient's transition to the outpatient setting with the appropriate VFC Irma Colen Health Center PCP. List of Participating UCLA Subspecialty Services:

- o Gastroenterology
- o Neurology
- o Ophthalmology
- o Orthopedics
- o Podiatry
- o Rheumatology
- o Surgery (General)
- o Urology

To implement this pilot program, UCLA and VFC will build the necessary processes, systems, and infrastructure. VFC PCPs and UCLA Subspecialists will be required to meet a new standard of care that provides increased emphasis on primary and preventive care, improved coordination of care and management of chronic diseases, improved communication with patients – including patient reminders for check-ups and screenings, improved patient satisfaction, the use of information technology/electronic health record, and adhering to quality and safety standards. Finally, UCLA and VFC will jointly be responsible for evaluation of the program. The evaluation will be organized around the following domains: [1] access; [2] costs; [3] care coordination; [4] patient compliance.

In essence, we will be taking a previously uninsured group and treatment them as if they have insurance overage. These processes will be essential to learn as more previously uninsured patients come into the United Stated healthcare system under the Patient Protection and Affordable Care Act.

• Expected Outcome:

The result of the project will be improved access to needed medical care for a previously uninsured population, which will result in an improvement to the patient's overall experience of care and improve the health of this population.

Relation to Category 3 Population-Focused Improvement:

An increase to the specialty care access feeds into the establishment of an adult medical home as care will become accessible and be better coordinated among a previously uninsured population.



	CATEGORY 1: Project 2. Ex	pand Specialty Care Capacity: Ve	nice Family Clin	ic Uninsured Coł	nort
Year 1	Year 2	Year 3	Year 4	Year 5	Other Projects This Feeds Into
Milestone: Develop a specialty care access plan, including a referral process, patient communication tools, payment mechanisms, and tracking • Metric: Program documentation vii. Measure: Implement a specialty care access plan. (Superset p. 39)	 Milestone: Train primary care providers, specialists and staff on processes guidelines, and technology for referrals and consultations into selected specialties. Metric: Program documentation of training. Numerator: number of staff trained and documentation of training materials. Denominator: Total staff working in primary and relevant specialty clinics. (Superset p. 39) Milestone: Increase the number of specialist providers and clinic hours available Metric: Increase number of specialist providers and clinic hours in 4 specialties Baseline number is zero providers and hours over baseline. (Superset p. 39) 	 Milestone: Reports will be provided on number of days to process referrals and wait times from generation of referral to actual referral appointment in the initial 4 specialty areas. Metric: Program documentation (Superset p. 39) Milestone: Increase the number of specialist providers and clinic hours available Metric: Increase number of specialist providers and clinic hours in 8 specialties. Baseline number is zero in additional 4 specialty areas for providers and hours. Metric will be number of providers and hours over baseline in additional 4 specialty areas 	NA	NA	Adult Medical Home (Cat. 2)



CATEGORY 2

Project 1: Establish Adult Medical Home

Goal:

Key Challenge:

Our health system has approximately 120 primary care physicians located in 25 practice sites. Assuming a panel size of 1,500-2,000 patients per physician, our system is providing care to approximately 250,000 individuals. Approximately 70,000 of these are enrolled in health maintenance organizations (HMOs). We are delegated for physician credentialing, utilization management, claims payment, quality assurance so that these patients are managed in an accountable manner. The remaining 180,000 patients receive care in a less coordinated fashion without measurement of quality or total costs, and hence the ability to improve the former and reduce the latter is largely absent.

We have primary care capacity. It takes care of capitated patients and thus has some of the structure to coordinate cost-effective care. The challenge is to provide the same or higher level of coordinated, data driven, cost-effective care to a group of patients used to receiving their care in an uncoordinated fashion.

• Solution:

The UCLA Health System will establish and implement a medical home model for our 20 practice sites on the West Side of Los Angeles. This model will transform the delivery of health care for this population and serve as a role model for other providers as well as other academic medical centers.

A fundamental gap in creating accountable care is the lack of timely and effective data. Therefore, we will develop patient registries, layered reporting of performance measures, decision support so that cost, access, and quality are measurable and improvement can be demonstrated.

With goals of reducing ED visits, hospitalizations, and readmissions, coordination of care will be enhanced by development of urgent care centers, development of a hospitalist program, and case management of high-risk groups including telemonitoring.

A key feature of the medical home model is patient involvement in their care. Therefore, we will create a portal, which will allow patients to have access to scheduling, access to their medical records, and enhanced, secure communication with their providers.

• Expected Result:

At the end of five years, the medical home model will have been fully implemented for a significant number of patients across the UCLA Health System, which will result in better coordination of care, greater access, and enhanced quality.



Relation to Category 3 Population-Focused Improvement: By implementing and expanding the medical home model, we will impact the patient experience, improve preventive health measures, and diabetes care for this population.

CATEGORY 2: Project 1. Establish Adult Medical Home					
Year 1	Year 2	Year 3	Year 4	Year 5	Other Projects This Feeds Into
Milestone: Put in place policies and procedures to enhance patient access to the medical home • Metric: Hospital	 Milestone: Implement the medical home model in primary care clinics as pilot Metric: Increase the number of primary clinics to 	 Milestone: Implement the medical home model in primary care clinics Metric: 25% of primary care clinics will be 	 Milestone: Implement the medical home model in primary care clinics Metric: 50% of primary care clinics will be 	 Milestone: Implement the medical home model in primary care clinics. Metric: 100% of primary care clinics will be using medical home model 	 Chronic disease management (Cat. 2) Reduce Readmissions (Cat. 3)
policies on medical homes Data Source:	at least 2 sites. Numerator: Number of clinics using medical	using the medical home model. Milestone : Pilot the	using medical home model. Milestone: 25% of	 Milestone: 100% of clinics will be using the portal system Metric: Program documentation 	
Organization's 'Policies and Procedures documents (Superset	home model. Denominator: Total number of primary care	 portal system that will enhance access to the medical home. Metric: Program 	 clinics will be using the portal system Metric: Program documentation 	Milestone : Based upon criteria, assign eligible patients to medical home.	
p. 46)	clinics. (Superset p. 45) Milestone : Plan the	documentation Expand and document interaction types between patient and	Milestone: Based upon criteria, assign eligible patients to	• Metric : At least 60% of eligible patients are assigned to medical home.	
	 portal system that will enhance access to the medical home Metric: Program 	healthcare team beyond one-to-one visits to include other interaction types.	 medical home. Metric: At least 25% of eligible patients are 		
	documentation Milestone: Based	(Superset p.48) Milestone: Based	assigned to medical home. (Superset p.49)		
	and submit a plan to assign eligible patients to the medical home.	eligible patients to medical home. • Metric: At least			



Metric: Program	10% of eligible		
documentation	patients are		
	assigned to		
	medical home.		
	Eligible patients		
	will be defined by		
	same definition		
	for medical homes		
	in Category 3 (2 or		
	more primary care		
	visits in the prior		
	year plus a		
	geographic limit		
	to local zip codes.)		
	(Superset p.49)		



Project 2: Establish Pediatric Medical Home

Goal:

• Key Challenge:

Access to high quality primary care is inadequate, particularly for children with complex chronic conditions. The number of children with complex conditions has been growing, accounting for an increasing fraction of health care costs. The availability of primary care practices equipped to properly care for these children lags this growing demand. Coordination across primary, specialty, in-patient, and community care providers is inadequate, and chronic care management for obesity, asthma, and diabetes is lacking.

Since 2003, the UCLA Department of Pediatrics has been operating a small, pilot pediatric medical home program for patients with complex chronic conditions, which has been extremely successful¹. However, resources are lacking to expand the program to meet the needs of our many patients with chronic conditions.

• Solution:

The UCLA Department of Pediatrics will expand its current medical home model with a focus on children with complex chronic conditions, including diabetes. Extended evening and weekend hours will be established to increase access to pediatric primary care.

To improve the coordination of care, the Department will develop co-management protocols between subspecialists and primary physicians, systemizing bi-directional communication protocols and clarifying roles and responsibilities of care management for this population.

As with the adult medical home, a key feature of the pediatric model is patient and family involvement in their care. Therefore, the Department will create a portal, which will allow patients to have access to scheduling, access to their medical records, and enhanced, secure communication with their providers. The Department will also maintain patient registries for patients with these chronic conditions.

• Expected Result:

At the end of five years, the pediatric medical home model will have been fully implemented, which will result in better coordination of care, greater access, and enhanced quality.

¹ Klitzner TS, Rabbitt LA, Chang RK. Benefits of care coordination for children with complex disease: a pilot medical home project in a resident teaching clinic. J Pediatr. 2010. 156(6): 1006-1010.



Relation to Category 3 Population-Focused Improvement: By implementing and expanding the pediatric medical home model, we will impact the patient experience, improve preventive health measures, and diabetes care for this population.

CATEGORY 2: Project 2. Establish Pediatric Medical Home					
Year 1	Year 2	Year 3	Year 4	Year 5	Other Projects This Feeds Into
Milestone: Put in	Milestone: Implement	Milestone: Pilot	Milestone: Fully	Milestone: Based upon criteria,	Chronic disease
place policies and	the medical home	portal in one clinic	implement portal in	assign eligible patients to medical	management (Cat. 2)
procedures to	model.	Metric: Program	one clinic	home.	
enhance patient	• Metric: Increase the	documentation.	• Metric: Program	• Metric: At least 50% of	
access to the medical	number of primary	Expand and	documentation	eligible patients are assigned	
home	clinics. Numerator:	document		to pediatric medical home.	
Metric: Hospital	Number of clinics	interaction types	Milestone: Based		
policies on	using medical home	between patient and	upon criteria, assign		
medical homes	model.	healthcare team	eligible patients to		
Data Source:	Denominator: Total	beyond one-to-one	pediatric medical		
Organization's	number of primary	visits to include	home.		
'Policies and	care clinics.	other interaction	• Metric: At least		
Procedures	(Superset p. 45)	types. (Superset	25% of eligible		
documents (Superset		p.48)	patients are		
p. 46)	Milestone: Plan the		assigned to		
	portal system that will	Milestone: Based	pediatric medical		
	enhance access to the	upon criteria, assign	home		
	medical home	eligible patients to			
	• Metric: Program	pediatric medical			
	documentation	home.			
		• Metric: At least			
	Milestone: Based upon	10% of eligible			
	criteria, develop and	patients are			
	submit a plan to assign	assigned to			
	eligible patients to the	pediatric			
	medical home.	medical home.			
	Metric: Program	Numerator:			
	documentation	number of			
		eligible patients			



assigned to a medical home. Denominator: Total number of eligible patients. (Superset p. 49)		



Project 3: Implement/Expand Care Transitions Program for Patients with Chronic Illness

Goal:

• Key Challenge:

The "care transition" between inpatient and outpatient settings following hospital discharge is a critical period for patients due to discontinuities in health care. Evidence of that is a high readmission rate. Several care transition programs have been shown in randomized, controlled trials to reduce readmissions and health care costs, but have not been widely disseminated due to high costs. Remote telephone and telemedicine monitoring and management approaches during the care transition period show significant promise in reducing readmissions and reducing costs, but need to be integrated into a comprehensive approach.

• Solution:

We will transform the care provided to patients at UCLA with specific chronic diseases known to be at high risk of readmission and other care coordination challenges. Protocols will be developed to manage these patients and case managers will be hired to implement these protocols. Hospital staff (e.g. floor nurses, pharmacists, discharge planners) will be trained to function as effective multidisciplinary teams. In addition, we will have active home monitoring of patients via telephonic connectivity with trained nurses who will perform structured calls, including medication reconciliation and symptom monitoring. Some high-risk patients, in addition, will have home physiologic monitoring, which will be connected to the center.

• Expected Result:

As more patients with these chronic diseases (e.g. heart failure, acute myocardial infarction, and pneumonia) are put into this kind of coordinated care model, we anticipate having better outcomes because of better adherence to medication processes at lower costs due to care being provided at the right level with fewer use of expensive hospital services.

Relation to Category 3 Population-Focused Improvement:

Expanded primary care capacity also feeds into the expansion of medical homes and more organized care delivery, better prevention and management of chronic conditions, and better utilization of health care resources. With expanded primary care capacity, more patients can have access to primary and preventive care, which increases opportunities to prevent disease and treat it early, and patients upon discharge can be scheduled for follow-up appointments at care at a primary care clinic, thereby reducing the risk and consequences of worsening health conditions.

Better communication between patients and providers can reduce medical and medication errors, help better solve health-related issues, empower patients to manage their conditions, and reduce the possibility of complications and readmission. Effective patient-provider communication is integral to high-quality care and a key measure of patient-centeredness and cultural competency.



Use of technology will help make the doctors more efficient, which will ultimately help reduce costs.

CATEGORY 2: Project 3. Implement/Expand Care Transitions Program for Patients with Chronic Illness					
Year 1	Year 2	Year 3	Year 4	Year 5	Other Projects This Feeds Into
 Milestone: Develop protocols for heart failure to effectively communicate with patients and families during- and post- discharge to improve adherence to discharge follow-up care instructions Metric: Heart failure care transition protocols (Superset p. 98) 	 Milestone: Develop a staffing and implementation plan to accomplish the goals/objectives of the care transitions program. Metric: Documentation of pilot results. (Superset p. 98) Milestone: Demonstrate the integration of information systems by stratifying patient demographic data by process, clinical, and/or quality data. Metric: Report of stratified data (Superset p. 99) 	 Milestone: Develop protocols for acute myocardial infarction (AMI) to effectively communicate with patients and families during- and post-discharge to improve adherence to discharge follow-up care instructions Metric: AMI transition protocol Milestone: 25% of heart failure patients receive standardized care according to the approved clinical protocols and care delivery model. Metric: Numerator: number of patients receiving discharge intervention and post- hospitalization phone management. Denominator: all patients discharged with heart failure diagoses. (Superset p. 99) 	 Milestone: Pilot protocols for AMI Metric: Documentation of pilot results Milestone: 50% of heart failure patients receive standardized care according to the approved clinical protocols and care delivery model. Metric: TBD by DPH system 	 Milestone: Fully implement AMI protocols Metric: Documentation of full implementation Milestone: 90% of heart failure patients receive standardized care according to the approved clinical protocols and care delivery model. Metric: TBD by DPH system 	Adult Medical Home (Cat. 3)



Project 4: Conduct Medication Management

Goal:

• Key Challenge:

Many patients with diabetes have poor control of risk factors such as blood pressure, cholesterol, and blood glucose, which places them at increased risk for macro- and micro-vascular complications. These complications are devastating to patients and are extremely expensive for the health system. Poor control of risk factors is attributable to a combination of factors including but not limited to failure on the part of providers to intensify pharmacotherapy and poor patient adherence to prescribed medications (Schmittd). Electronic Health Records (EHR) can provide assistance to physicians, but most existing EHRs lack effective decision support tools to allow physicians to efficiently manage these complex patients.

• Solution:

This project will address these problems by implementing point of care decision support for providers during the clinical encounter, co-management of medications by pharmacists, and pharmacist-administered, individualized mediation education for patients. No such decision support tool exists. We propose to develop and implement it. This will be accomplished by enhancing the connectivity of our electronic health record with electronic claims, developing appropriate treatment algorithms, and identifying patients who are candidates of the point of care reminders.

Additionally, we will implement and evaluate the effectiveness of one-on-one consultations with UC-based pharmacists designed to educate patients about chronic medications, reduce medication side effects and reduce costs by identifying equally effective but lower cost alternatives on mediation adherence. Co-management by pharmacists, accompanied by enhanced electronic communication between the pharmacist and primary care provider is likely to greatly improve adherence to medications and holds great promise for improving long-term outcomes for some of the most vulnerable patients with diabetes.

• Expected Result:

If the interventions are successful, and improve glycemic control, improve blood pressure control, and lower average blood lipids, then we expect substantial cost savings.

Relation to Category 3 Population-Focused Improvement:

This project is intended to be an enhancement to the adult medical home model. It also feeds into chronic disease management, since medication management is an essential tool in the care of the people with chronic diseases.



CATEGORY 2: Project 4. Conduct Medication Management					
Year 1	Year 2	Year 3	Year 4	Year 5	Other Projects This Feeds Into
 Milestone: Develop written medication management program for patients with diabetes including workflow for providers and people processes and technologies Metric: Program documentation. (Superset p. 94) 	 Milestone: Develop evidence-based decision rules that will be the clinical underpinning of each point of care decision support message Metric: Program documentation. (Superset p. 95) Milestone: Pilot the medication management program Metric: At least 5% of eligible diabetic patients receive pharmacist consultation. Eligible patients will be defined by same definition for medical homes in Category 3 (2 or more primary care visits in the prior year plus a geographic limit to local zip codes.) (Superset p. 96) 	 Milestone: Roll out the point of care decision support tool Metric: Program documentation. (Superset p. 95) Milestone: Roll out the medication management program Metric: At least 25% of eligible diabetic patients receive pharmacist consultation 	 Milestone: Roll-out decision support tool Metric: Decision support tool is installed in 25% of primary care clinics 	 Milestone: Roll-out decision support tool Metric: Decision support tool is installed in 90% of primary care clinics 	 Chronic disease management (Cat. 2) Medical Home (Cat. 2)



CATEGORY 4

Project 1. Central Line-Associated Bloodstream Infection (CLABSI) Prevention

Key Challenge:

It has become clear that interventions designed to diagnose and treat critically ill patients in hospitals are a cause of injury to patients. The use of central venous catheters is one of those interventions causing significant morbidity, mortality, and cost. More importantly, it has also become clear that there are a number of straightforward practices that can significantly reduce the rate of infection. These include specific practices for line insertion and specific practices for line maintenance that have been collected into bundles and implemented widely on checklists.

At UCLA, despite significant effort, we have only been able to reduce CLABSI from 3.5/1000 to approximately 2.0/1000. Because we treat a large number of intensively ill patients with liver transplants, heart and lung transplants, and trauma, and use a high number/percentage of central lines, this is a high risk population for us and one for which we should be managing well. When a blood stream infection occurs there is a higher than desired mortality and morbidity.

Solution:

We propose to implement best practices (bundles) for central line catheter insertion and maintenance to reduce the rate of catheter associated blood stream infections for adult and pediatric intensive care units, excluding the neonatal ICU. We will use the standard definition of catheter associated blood stream infection and will measure outcomes as number of infections per 1000 catheter days.

CATEGORY 4: Project 1. Central Line-Associated Bloodstream Infection (CLABSI) Prevention						
Year 1	Year 2	Year 3	Year 4	Year 5		
 Produce baseline data for central line sepsis rates for all involved ICUs. 	2. Implement the Central Line Insertion Practices (CLIP), as evidenced by policies and procedures and CLIP tracking tool to be included with central line insertion kits and completed by individuals placing lines.	 Share data, promising practices, and findings with SNI to foster shared learning and benchmarking across the California public hospitals. Report CLIP and CLABSI results to the State. 	 Achieve X% compliance with Central Line Bundle, where "X" will be determined in Year 2 based on baseline data. Reduce Central Line Bloodstream Infections by X%, where "X" will be determined in Year 1-2 based on baseline data. 	 11. Achieve X% compliance with Central Line Bloodstream Infections Bundle, where "X" will be determined in Year 2 based on baseline data. 12. Reduce Central Line Bloodstream Infections by X%, where "X" will be determined in Year 1-2 based on baseline 		



CATEGORY 4: Project 1. Central Line-Associated Bloodstream Infection (CLABSI) Prevention								
Year 1	Year 2	Year 3	Year 4	Year 5				
	 Report at least 6 months of data collection on CLIP to SNI for purposes of establishing the baseline and setting benchmarks. Report CLIP results to the State. 		 Share the results of quarterly measurements with SNI to foster shared learning and benchmarking across the California public hospitals. Report CLIP and CLABSI results to the State. 	 data. 13. Share the results of quarterly measurements with SNI to foster shared learning and benchmarking across the California public hospitals. 14. Report CLIP and CLABSI results to the State. 				



Project 2: Improve Severe Sepsis Detection and Management

Key Challenge:

Severe sepsis and septic shock are associated with high mortality and cost, affecting approximately 750,000 Americans annually². Consequences can be especially severe when occurring outside the intensive care unit (ICU), because onset is often cryptic and care delayed³. Early goal-directed therapy (EGDT) for severe sepsis and septic shock reduced morality when applied outside the ICU⁴⁵. EGDT involves identification of high-risk patients, invasive monitoring, and 6 hours of protocolized resuscitation with fluids, vasoactive agents, and packed red blood cells. All though these strategies are common in the ICU, they may not be universally applied outside the ICU.

Because we treat a large number of intensively ill patients with liver transplants, heart and lung transplants, and trauma, there is a significant risk of sepsis with an attendant significant risk of morbidity and mortality.

This is not a project we have taken on in our patient safety and quality program, but we look forward to participating with other public hospitals in the state of California in learning how to do this.

Solution:

Like all California hospitals, we will implement the proposed sepsis bundle to include lactate measurement, blood cultures, broad-spectrum antibiotics, and fluid resuscitation for hypertensive patients. Because it is unclear which components of the bundle are most critical and it is uncertain what barriers to successful implementation may be⁶, we anticipate continued reevaluation of the bundle during the course of the five-year project.

² Angus DC, Linde-Zwirble WT, Lidicker J. et al. Epidemiology of severe sepsis in the United States. Analysis of incidence, outcome, and associated costs of care. Crit Care Med 2001; 29:1303-1310.

³ Lundberg JS, Perl TM, Wiblin T, et al: Septic shock: An analysis of outcomes for patients with onset on hospital wards versus intensive care units. Crit Care Med 1998; 26:1020-1024.

⁴ Rivers E, Nguyen B, Havstad S, et al. Early goal-directed therapy in the treatment of severe sepsis and septic shock. N Engl J Med 2001; 345:1368-1377.

⁵ Barochia AV, Vitberg D, Cui X, et al. Bundled care for septic shock: an analysis of clinical trials. Crit Care Med 2010; 38:668-678.

⁶ Kollef MH, Micek ST. A magic bullet for sepsis: Getting back to the basics. Crit Care Med 2010;38(2):733-734.



CATEGORY 4: Project 2. Improve Severe Sepsis Detection and Management							
Year 1	Year 2	Year 3	Year 4	Year 5			
Year 1 1. Develop baseline data on sepsis incidence and mortality.	Year 2 2. Implement the Sepsis Resuscitation Bundle: to be completed within 6 hours for patients with severe sepsis, septic shock, and/or lactate > 4 mmol/L (36 mg/dl) Source of data to be the RRUCLA patient chart. • Serum lactate measured. • Blood cultures obtained prior to antibiotic administration. • Improve time to broad-spectrum antibiotics: within 3 hours for ED admissions and 1 hour for non-ED ICU admissions. • In the event of hypotension and/or lactate > 4 mmol/L (36 mg/dl):	 Year 3 5. Make the elements of the Sepsis Bundles more reliable by: a. Coordinate strong partnerships among emergency department, critical care, and medical- surgical units measured by a written agreement. b. Utilize pre-formatted order sets that include the drugs of choice as options measured by the development and use of new order sets. 6. Achieve X% compliance with Sepsis Resuscitation Bundle, where X will be determined in year 2 based on baseline data.⁹ 7. Measure sepsis mortality (Numerator: number of patients in population expiring during current month hospitalization with sepsis, severe sepsis, or septic shock and/or an infection and organ dysfunction. Denominator: number of patients 	 Year 4 10. Achieve X% compliance with Sepsis Resuscitation Bundle, where "X" will be determined in Year 1-2 based on baseline data. 11. Measure sepsis mortality 12. Share the results of quarterly measurements with SNI to foster shared learning and benchmarking across the California public hospitals. 13. Report results to the State. 	Year 5 14. Achieve X% compliance with Sepsis Resuscitation Bundle, where "X" will be determined in Year 1-2 based on baseline data. 15. Measure sepsis mortality 16. Share the results of quarterly measurements with SNI to foster shared learning and benchmarking across the California public hospitals. 17. Report results to the State.			
	 Deliver an initial minimum of 20 	month with sepsis, severe sepsis, or septic shock, and/or an					



CATEGORY 4: Project 2. Improve Severe Sepsis Detection and Management							
Year 1	Year 2	Year 3	Year 4	Year 5			
	 ml/kg of crystalloid (or colloid equivalent). Apply vasopressors for hypotension not responding to initial fluid resuscitation to maintain mean arterial pressure (MAP) > 65 mm Hg. Report at least 6 months of data collection on Sepsis Resuscitation Bundle to SNI to foster shared learning and benchmarking across the California public hospitals. Report the Sepsis Resuscitation Bundle results to the State. 	 infection and organ dysfunction. 8. Share the results of quarterly measurements with SNI to foster shared learning and benchmarking across the California public hospitals. 9. Report the Sepsis Resuscitation Bundle and Sepsis Mortality results to the State. 					



Project 3: Hospital-Acquired Pressure Ulcer Prevention

Key Challenge:

Hospital acquired pressure injuries (HAPU) are a serious unintended consequence of hospitalizations. According to the National Pressure Ulcer Advisory Panel (NPUAP), the prevalence of HAPU is 10% to 18% in the acute care settings, 2.3% to 28% in long-term care facilities, and as high as 29% in home care environments. The Agency for Healthcare Research and Quality (AHRQ) reported in 2008 that HAPU doubled or tripled lengths of stay and costs \$16,000 to \$20,000 to treat. The Centers for Medicaid and Medicare Services (CMS) has estimated the cost per patient is closer to \$43,000 and has included HAPU on a list of acquired conditions for which for which it will not reimburse. HAPU is becoming a burden on health care. Two and a half million patients are treated for complications of pressure ulcers that that increase mortality rates and carry a cost of \$11 billion. It is also the most commonly reported adverse outcome in the state of California to the Department of Public Health.

UCLA has had a prevalence of as high as 4%. The consequence is a significant morbidity, prolonged hospital stays, and patient dissatisfaction. Improvement in this number will have a significant benefit to our patients.

Solution:

We are going to identify and implement best nursing practices to minimize the occurrence of pressure ulcers taking into consideration that there are significant metabolic and physiologic risk factors that influence the incidence of pressure ulcers in acute care hospitals and there are device-related pressure ulcers that cannot be prevented.

CATEGORY 4: Project 3. Hospital-Acquired Pressure Ulcer Prevention									
Year 1	Year 2	Year 3	Year 4	Year 5					
 Develop baseline data by measuring pressure ulcer prevalence. 	 Achieve hospital-acquired pressure ulcer prevalence of less than 2.5%. Share data, promising 	 Achieve hospital- acquired pressure ulcer prevalence of less than 2.0%. 	8. Achieve hospital-acquired pressure ulcer prevalence of less than <i>1.6</i> %.	11. Achieve hospital-acquired pressure ulcer prevalence of less than 1.1%.					
	practices and findings with SNI to foster shared learning and benchmarking across the California public hospitals.	 Share data, promising practices, and findings with SNI to foster shared learning and benchmarking across the California public 	9. Share data, promising practices, and findings with SNI to foster shared learning and benchmarking across the California public hospitals.	12. Share data, promising practices, and findings with SNI to foster shared learning and benchmarking across the California public hospitals.					



CATEGORY 4: Project 3. Hospital-Acquired Pressure Ulcer Prevention								
Year 1	Year 2	Year 3	Year 4	Year 5				
	4. Report hospital-acquired pressure ulcer prevalence results to the State.	hospitals. 7. Report hospital-acquired pressure ulcer prevalence to the State.	10. Report hospital-acquired pressure ulcer prevalence to the State.	13. Report hospital-acquired pressure ulcer prevalence to the State.				



Project 4: Surgical Complications Core Processes

Key Challenge: Surgical site infections occurring within 30 days after an operation have the second highest frequency of any adverse event occurring in hospitalized patients and are the third most common healthcare-associated infection. Surgical complication harm to patients is significant, resulting in increased mortality, readmissions, length of hospital stay and cost.

Solution: UCLA has done well with core measures for surgical site infection prevention with the most important process measure, antibiotics within 1 hour of incision for indicated cases at 95-100% for many years. We have not had a concerted surveillance program, and this initiative gives us the opportunity to develop resources for surveillance, measurement and reduction.

	CATEGORY 4: Project 4. SSI									
Year 1			Year 2		Year 3		Year 4		Year 5	
1.	Develop comprehensive surgical site infection prevention plan including staffing, data collection, and reporting.	1.	Measure the rate of surgical site infections for class 1 and 2 wounds to establish baseline for improvement effort.	4.	Reduce the rate of surgical site infection for Class 1 and 2 wounds by X%, where X will be determined in Year 2 based on baseline data.	7.	Reduce the rate of surgical site infection for Class 1 and 2 wounds by X%, where X will be determined in Year 2 based on baseline	10.	Reduce the rate of surgical site infection for Class 1 and 2 wounds by X%, where X will be determined in Year 2 based on baseline data.	
	 2. Report a months collection for purple establis baseline benchm 3. Report a State. 	2.	Report at least 6 months of data collection on SSI to SNI for purposes of establishing the baseline and setting benchmarks.	5.	Share data, promising practices, and findings with SNI to foster shared learning and benchmarking across the California public hospitals.	8.	data. Share data, promising practices, and findings with SNI to foster shared learning and benchmarking	11.	Share data, promising practices, and findings with SNI to foster shared learning and benchmarking across the California public hospitals.	
		Report results to the State.	6.	Report results to the State.		across the California public hospitals.	12.	Report results to the State.		
						9.	Report results to the State.			