

**CALIFORNIA DEPARTMENT OF PUBLIC HEALTH
AND
DEPARTMENT OF HEALTH CARE SERVICES**



Report to the Legislature

**Minimum Data Set 3.0, Section Q Data Analysis,
Pursuant to Welfare and Institution Code 14126.028**

Center for Health Care Quality, California Department of Public Health

Long-Term Care Division, California Department of Health Care Services

August 2014

Table of Contents

Executive Summary.....	1
Introduction.....	4
Background.....	4
California Community Transitions.....	5
Legislative Mandate.....	6
Methods.....	6
Analysis.....	8
Key Findings.....	12
Recommendations and Future Research Considerations.....	13
Appendices:	
Appendix I – MDS 3.0 Section Q (form)	15
Appendix II – Data	16
Appendix III – Data Analysis	20

Executive Summary

The Legislature, through passage of Welfare and Institutions Code (WIC) 14126.028(d), required the California Department of Health Care Services (DHCS) to collaborate with the California Department of Public Health (CDPH) to provide an analysis of Section Q of the federally required Minimum Data Set, Version 3.0 (MDS 3.0), used to assess nursing facility residents, and nursing facilities' referrals made to state-designated Local Contact Agencies (LCA) that can facilitate transition of residents to care in community settings. The analysis is to assess the implementation of Section Q and its utility in facilitating long-stay residents' (return to community settings through DHCS's California Community Transitions (CCT) Program (a federal Money Follows Person Rebalancing Demonstration).

MDS 3.0 was developed by the U.S. Department of Health and Human Services, Centers for Medicare and Medicaid Services (CMS) as part of the federal government's Nursing Home Quality Initiative (NQHI). The MDS 3.0 assesses nursing facility residents' clinical conditions and abilities as well as their preferences for care. Section Q in MDS 3.0 requires residents to be asked whether they would want to talk to someone about receiving care in a community setting. If they do, nursing facilities are required to make referrals to LCAs on behalf of the resident.

To fulfill this goal, a retrospective cohort analysis was used to capture and present the relevant MDS 3.0 information and report the findings to the Legislature. The analysis was comprised of residents with at least one MDS 3.0 assessment conducted within an 18 month time period (all of calendar year 2012 and the first half of 2013). The cohort was broken into two subpopulations determined by whether a resident was discharged to the community, or not discharged to the community. The discharge/non-discharge cohort was further broken into two sub-groups: long-stay (greater than 100 day stay) versus short-stay residents.¹

In addition, methodological decisions were made to treat any one answer of wanting to hear more about community care, or expressing the desire to live in the community, as affirmative in analyzing the data to capture the largest number of individuals indicating they wanted to return to the community.

Key findings of this analysis are as follows:

- There were 208,403 residents included in this analysis; 83,323 (40%) long-stay residents, and 125,080 (60%) short-stay residents (see Table 2). Active discharge planning is more likely to occur with short-stay residents than long-stay residents, resulting in long-stay residents being more reliant on referrals to LCAs to return to the community. About 20.3% of long-stay residents who were discharged had active discharge planning in place (see Tables C and C1).

¹ The procedure used to construct the long-stay and short-stay groups closely adheres to that used by Centers for Medicare and Medicaid Services (CMS) for its MDS 3.0 Quality Measures as described in RTI International's 2012 User's Manual. The assessment types included in this study, for example, mirror that used by CMS for most its MDS 3.0 Quality Measures. Three general categories of MDS 3.0 assessments can be distinguished: regular, PPS (Prospective Payment System, refers to Medicare reimbursed residents), and entry/discharge. Entry assessments are excluded from consideration in the study. Also, all skilled nursing facility (SNF) residents that have a 'Death in Facility' discharge assessment are excluded from the study cohort. All other assessment types are included in the study.

- Only a very small percent of all residents indicated that they wanted to talk to someone about returning to the community; 16,360 (7.9%) of all residents, and 9,752 (11.7%) of long-stay residents (see Table 2).
- Almost two-thirds 55,090 (66.1%) of long-stay residents indicated they did *not* want to talk to someone about returning to the community. There were more long-stay residents, 11,105 (13.3%), who answered “unknown or uncertain” when they were asked if they wanted to speak with someone about returning to the community, than there were residents who answered “yes,” 9,752 (11.7%), (see Table 2).
- Long-stay residents who indicated they wanted to talk to someone about returning to the community were four times more likely to receive a referral to an LCA (19.9%) compared to those indicated they did not want to talk to someone about returning to the community (5%), (see Table E).
- Of the 28,737 residents who were reportedly referred to LCAs, only 6,371 (22.2%) were long-stay residents. In contrast, 22,356 (77.8%) of short-stay residents were reportedly referred to an LCA (see Table 3).
- For long-stay residents, the key to being discharged to the community was receiving a referral to an LCA. A long-stay resident who received a referral was six times more likely to be discharged to the community (20.1%), compared to one who did not receive a referral (3.2%), (see Table F).
- For all residents, only 3,945 (4.3%) of those discharged to the community were long-stay residents compared to the 87,132 (95.7%) short-stay residents discharged to the community (see Table 4).
- Of the 1,637 long-stay residents who wanted to talk to someone about returning to the community and who also received a referral, only 345 (21%) were discharged (see Tables A1 and E).

The analysis of this data leads to several recommendations for future research considerations:

- A deeper analysis of the MDS 3.0 Section Q data, including risk adjusting, needs to be completed to better understand which residents are indicating a desire to talk to someone about returning to the community, and which residents receive referrals.
- The new version of MDS data, MDS 3.0, does not identify the insurance payer source for each SNF resident, which makes it difficult to identify Medi-Cal residents who potentially could benefit from the Money Follows the Person (MFP) Rebalancing Demonstration, known as CCT. It could be valuable to work with the Office of Statewide Health Planning and Development (OSHPD) to identify data that may partially address this problem by developing a proxy measure by payer source at the facility level.

- MDS 3.0, Section Q data only measures part of what the legislative mandate requires to be reported. This data can't address the LCA response to referrals as required under 2a of the mandate, see on page 6. This analysis measures the number of residents asked about returning to the community and whether a referral has been made to the LCA; however, it cannot track activities, such as LCA actions, beyond what is reported within the MDS assessment by facility staff. While some additional data is collected by DHCS, it is not cross-referenced with MDS 3.0 and is not representative of the volume of referrals in this report. Additional data collection through other venues and analysis needs to be considered to review referrals in the community.

Action items and recommendations:

This report can only look at data that is currently reported to the MDS 3.0 system. An overall review of the data indicates there may be concern about how Section Q is being interpreted, implemented (or asked) in the facilities, and/or data input. Additional training may be needed to assist facilities in correctly interpreting Section Q, asking residents questions, and inputting the data.

While much can be done to improve to data quality related to Section Q, DHCS's CCT Program has to identify alternative mechanisms to assist Medi-Cal nursing facility residents to transition to community settings. Efforts are underway to:

1. Expand the current list of LCAs specialized in providing transitional services. They include Independent Living Centers, providers of Multipurpose Senior Services Program (MSSP), home health agencies, and other care coordination agencies. DHCS will also engage Medi-Cal managed care plans to transition their own plan members who are in nursing facilities;
2. Strengthen mechanisms to identify newly admitted Medi-Cal nursing facility residents through the DHCS claims system and make referrals to LCAs. Similarly, DHCS will engage Medi-Cal managed care plans with their own identification processes;
3. Strengthen relations between LCAs, housing providers, and Medi-Cal Home and Community Based Programs, including the 1915(c) waiver programs, to receive nursing facility discharges;
4. Execute the new CMS-HUD rental assistance program to develop 335 housing units to receive nursing facility discharges; and,
5. Integrate the Coordinated Care Initiative (CCI) in eight counties which will focus on alleviating fragmentation to services and care coordination. Fragmentation forces beneficiaries to access services through a complex system of disconnected programs at different levels of care. This fragmentation often leads to beneficiary confusion, delayed care, inappropriate utilization and unnecessary costs. Integrating all services and financing for Medi-Cal beneficiaries will promote care coordination and result in improved beneficiary health and lower costs.

Introduction

The Legislature, through passage of Welfare and Institutions Code (WIC) 14126.028(d), requires the California Department of Health Care Services (DHCS) to collaborate with the California Department of Public Health (CDPH) to provide an analysis of Section Q of the Minimum Data Set, Version 3.0 (MDS 3.0), and nursing facilities' referrals made to state-designated local contact agencies (LCA). MDS 3.0 was developed as part of the federal government's Nursing Home Quality Initiative (NHQI), used to oversee the quality of care being provided in nursing facilities.

This analysis presents data collected from Section Q of the MDS 3.0 within the Resident Assessment Instrument (RAI). The intent of the MDS 3.0 Section Q is to explore meaningful opportunities for nursing home residents to set their own goals and to ensure all individuals have the opportunity to learn about home- and community-based long-term services and supports available in their community.

MDS 3.0 Section Q assessments are completed at the time of admission to the facility, quarterly, annually, when there is a change in the resident's condition, and during discharge planning.²

Background

The RAI is comprised of the MDS 3.0 (assessment), the Care Area Assessment (CAA) process, and the RAI Utilization Guidelines. The MDS 3.0 is used to assess every resident in a Medicare- or Medicaid-certified nursing facility. The assessment is a comprehensive evaluation of residents' current health conditions, treatments, abilities, and plans for discharge.

While determining which residents are Medi-Cal beneficiaries is not possible using the data in the MDS 3.0, in OSHPD's most recent summary analysis entitled *Long-Term Care Facilities Utilization and Financial Trends 2003-2007* (published in Spring 2010), we know that two-thirds of resident days in California long-term care facilities were paid by Medi-Cal between 2003 and 2007.

There are 21 Sections that comprise the MDS 3.0; Sections A-Q, S, V, X, and Z. Section Q "Participation in Assessment and Goal Setting," was developed as part of the federal NHQI and was designed to explore residents' interests in returning to live in community settings. After MDS 3.0 was released for use in October 2010, CMS made additional revisions to Section Q in April 2012, to ensure residents (or their legal representatives) participated in the portion of the assessment used to "understand the resident's overall goals." The intent of the revisions was to create a person-centered approach and include goal setting to ensure all individuals living in certified long-term care facilities have the opportunity to learn about services and supports available to them in returning to the community.

Under 42 C.F.R. PART 483—REQUIREMENTS FOR STATES AND LONG TERM CARE FACILITIES, nursing facilities are responsible for residents' discharge planning. However, in October 2008, CMS issued a letter to State Medicaid Agency (SMA) Directors requesting states' assistance in establishing a network of LCAs to assist with implementation of MDS 3.0, Section Q.

² Non-certified nursing facilities may use the MDS 3.0 assessment to evaluate residents within their facilities; however, only Medicare- and Medicaid-certified facilities are required to complete the assessments and submit the data to CMS on a regular basis.

As a result, nursing facilities unable to meet residents' home- or community-based long-term care needs through their discharge planning and referral process are required to refer residents who are interested in returning to the community to state-designated LCAs to receive information about services and supports available in the community.

Upon receipt of an MDS 3.0 referral, LCA staff provide the resident with information on available home- and community-based services and supports. Nursing facility and LCA staff are expected to engage the resident and his/her family in meaningful discussions about local resources and the potential to discharge safely to the community. When it is possible to safely transition the resident to the community, nursing facility staff collaborate with transition planning service providers to arrange for the necessary community-based services and supports required to ensure a safe and sustainable transition.

As California's SMA, DHCS recruited organizations with a breadth of knowledge on community resources and transition services available to residents in their regions. California's LCAs are organized by county or region and work collaboratively with nursing facilities and transition coordinators to educate residents about community living and transition services, when possible.

In February of 2013, CMS approved a Data Use Agreement (DUA) with DHCS, which authorized CDPH to provide MDS 3.0, Section Q data to DHCS. DHCS is using MDS 3.0 data to identify Medi-Cal beneficiaries who are eligible for California's Money Follows the Person Rebalancing Demonstration, known as California Community Transitions (CCT).

California Community Transitions (CCT) Program

CCT helps the state implement the integration mandate of the Americans with Disability Act (ADA), as required by the Olmstead decision, by providing critical tools to local transition coordination service providers to address gaps in the availability of community services for individuals with disabilities.³ The opportunity to serve more individuals in home and community-based settings "rebalances" the long-term care system by reducing the use of institutionally-based services for residents willing and able to return to the community. Most importantly, CCT provides eligible Medi-Cal beneficiaries in institutions with the resources, services, and supports that are required for an individual to transition from an institution into the most integrated community setting of their choice that is appropriate to their needs.⁴

To be eligible for the CCT Program, a Medi-Cal beneficiary must have resided in a state-licensed health care facility for a period of 90 consecutive days or longer, be interested in returning to the community, and must have a nursing care level of need that would prevent him or her from living outside of a nursing facility without home- and community-based long-term services and supports (LTSS). Individuals who stay in a nursing facility beyond a short or rehabilitative stay remain a resident for a variety of reasons; because of this, all segments of the long-term care population: elders, persons with physical, developmental, and mental disabilities, are eligible for the CCT

³ 2012 Money Follows the Person Rebalancing Demonstration Program Planning Grant Solicitation

⁴ United States Department of Justice; *Olmstead: Community Integration for Everyone*; <http://www.ada.gov/olmstead/index.htm>.

Program. In the 18 months between January 1, 2012, and June 30, 2013, the CCT Program successfully transitioned 698 individuals from long-term care facilities back to the community.

At this time, most CCT Enrollees are identified by CCT Lead Organizations through outreach and networking in the local service areas, as opposed to certified long-term care facility MDS 3.0 referrals. All CCT Lead Organizations provide LCA services and must report when new a CCT enrollment is the result of a SNF MDS 3.0 referral. Of the 698 transitions, only 69 were identified as MDS 3.0, Section Q referrals.

Legislative Mandate

California Welfare and Institution (W&I) code 14126.028(d), requires the following:

“The State Department of Health Care Services, in collaboration with the State Department of Public Health, shall, by April 1, 2013, provide the Legislature an analysis of the appropriate sections of the Minimum Data Set, Version 3.0, Section Q and nursing facilities referrals made to the LCA. This analysis shall also document the LCA’s response to referrals from nursing facilities and the outcomes of those referrals.”

For purposes of this report, this mandate is divided into the following four analytical parts:

- 1 An analysis of:
 - a. Appropriate sections of the MDS 3.0, Section Q, and
 - b. Nursing facilities’ referrals made to the LCAs.
- 2 And document:
 - a. The LCA’s response to referrals from nursing facilities, and
 - b. The outcomes of those referrals.

Methods

MDS 3.0, Section Q is comprised of seven measurement areas, some with multiple sub-questions, under the general heading: “Participation in Assessment and Goal Setting.” (Section Q in its entirety is located in Appendix I.)

This analysis is focused on the relationship of four key points in the process of a skilled nursing facility (SNF) resident in California potentially transitioning from the facility to community living and support:

1. The SNF is required to make a resident referral to an LCA (‘NO’ on question Q0400; the resident is not involved in active discharge planning).
2. A resident answers ‘YES’ to question Q0500 that he/she wants to talk to someone about the possibility of returning to the community.

3. The SNF has made a resident referral to the LCA, as documented by question Q0600.
4. The discharge status field of MDS 3.0, A2100, identifies the outcome of a resident returning to the community (defined to be a private home/apt., board/care, assisted living, or group home).

Based on the complexity of the data and specific research questions, a retrospective cohort analysis was used to capture and present the relevant MDS 3.0 information and adequately address the legislation. The structure of this retrospective cohort analysis is summarized in four parts:

1. The study cohort is comprised of residents with at least one MDS 3.0 assessment conducted during the first half of calendar year 2013.
2. Strengthen mechanisms to identify newly admitted Medi-Cal nursing facility residents through DHCS claims system and make referrals to LCAs;
3. The resident's responses to key questions in MDS 3.0, Section Q, were evaluated in all of his/her MDS 3.0 assessments completed over an 18 month period (all of calendar year 2012 and the first half of 2013). A longer study period would be preferable; however, MDS 3.0 is a fairly new data source. In CDPH's judgment, the overall pattern of responses to certain Section Q questions did not stabilize until the year 2012.
4. The discharge/non-discharge cohort was further broken into two sub-groups: long-stay versus short-stay residents. Long-stay residents are defined by CMS as those who have been in the nursing home more than 100 cumulative days.⁵
5. Integrate the CCI in eight counties which will focus on alleviating fragmentation to services and care coordination. Fragmentation forces beneficiaries to access services through a complex system of disconnected programs at different levels of care. This fragmentation often leads to beneficiary confusion, delayed care, inappropriate utilization and unnecessary costs. Integrating all services and financing for Medi-Cal beneficiaries will promote care coordination and result in improved beneficiary health and lower costs.

Measurement Using Resident Assessments: Hierarchical Weighting

In an attempt to analyze MDS 3.0 data in a functional manner, and to include the largest number of individuals indicating they wanted to return to the community, certain methodological decisions were made. MDS 3.0 data are structured as a set of multiple dated assessments for each resident. Each resident may have multiple assessments completed each year, and different assessments ask

⁵ The procedure used to construct the long-stay and short-stay groups closely adheres to that used by CMS for its MDS 3.0 Quality Measures as described in RTI International's 2012 User's Manual. The assessment types included in this study, for example, mirror that used by CMS for most its MDS 3.0 Quality Measures. Three general categories of MDS 3.0 assessments can be distinguished: regular, PPS (Prospective Payment System, refers to Medicare reimbursed residents), and entry/discharge. Entry assessments are excluded from consideration in the study. Also, all SNF residents that have a 'Death in Facility' discharge assessment are excluded from the study cohort. All other assessment types are included in the study.

different questions. For purposes of this analysis, residents are counted as giving a particular response to a Section Q question in the following hierarchical criteria:

Criteria 1: If a resident answers '1. Yes' **at least once** to the Return to Community question (Q0500), the resident is counted as giving that response.

Criteria 2: With all residents from Criteria 1 above removed from consideration, any resident remaining who answered '9. Unknown or uncertain' **at least once** is counted as giving that response.

By this approach, only one answer to the Section Q question is included for each resident and that answer is counted only once. This particular hierarchical criterion weights 'Yes' responses higher than other responses. In a hypothetical situation of a resident answering 'Yes' to Q0500 in one assessment but 'No' in other assessments, this resident would be included as a 'Yes' according to the hierarchical criteria used in this report, which may be considered a bias towards 'Yes' responses.

Analysis

The MDS 3.0 data used in this study—extracted from the federal Quality Improvement and Evaluation System (QIES) Workbench database—were current as of August 4, 2013.

In considering the responses to Section Q questions, all assessments of the cohort group of residents are considered in an 18 month time period—from the beginning of 2012 through June 2013. There are a total of 208,403 residents in the cohort. There are a total of 1,081,886 assessments included from the 18 month time period. Overall, the cohort is comprised of 40% long-stay residents and 60% short-stay. Just over 43.7% of the residents were discharged to the community, and 56.3% were not discharged.

This report provides three levels of analysis. The first level of analysis includes frequency counts of resident answers to selected Section Q questions. The second level of analysis, presented in Appendix III, includes pairwise relationships between two of the Section Q questions and whether or not the resident was discharged to the community. The third level of analysis, included in Appendix II, presents the resident count information in a way that allows all three factors to be examined simultaneously.

In the following tables 1-3, responses for questions Q0400, Q0500, and Q0600 were tabulated for all residents, for short-stay residents only, and for long-stay residents only.

Residents and Active Discharge Planning

Table 1 shows active discharge planning is less likely to occur with long-stay residents, resulting in more long-stay residents being required to be asked about their desire to return to the community (Q0500). Almost two-thirds (65.2%) of all residents had active discharge planning in place at the time of the assessment. Of long-stay residents, only 29.9% had active discharge planning.

Table 1: Number of Residents with Active Discharge Planning Already Occurring

Q0400. Discharge Plan	All Residents		Short-Stay Only		Long-Stay Only	
	Count	Percent	Count	Percent	Count	Percent
0. No	71,603	34.4%	13,239	10.6%	58,364	70.0%
1. Yes	135,836	65.2%	110,888	88.7%	24,948	29.9%
Remainder	964	0.5%	953	0.8%	11	0.0%
Total	208,403	100%	125,080	100%	83,323	100%

Resident Preferences and Returning to the Community

Table 2 shows 66.1% of long-stay residents indicated they did *not* want to talk to someone about the possibility returning to the community, and only 11.7% said ‘Yes’, they did want to talk to someone.

A “skip pattern” was built into Section Q. Residents with active discharge planning (Q0400 = ‘YES’) should not be asked Q0500. Subsequently, these individuals should show up in Table 2 in the ‘Remainder’ row. This “skip pattern” was analyzed.

Of the 135,836 residents who answered ‘Yes’ to Q0400, 100,078 (73.7%) of their assessments included the skip pattern correctly and they showed up in the ‘Remainder’ row for Q0500 in Table 2. When the skip pattern was not followed correctly, there were two possible outcomes. In 3,685 cases residents without discharge plans were not asked Q0500 when they should have been. Conversely, in 32,073 cases, nursing facility staff mistakenly asked residents with active discharge plans Q0500. Hence, although 96.4% of the remainder to Q0500 is accounted for by the skip pattern being correctly initiated by a ‘Yes’ answer to Q0400, only 73.7% of residents who had a ‘Yes’ for question Q0400 active discharge planning correctly skipped question Q0500 and directly proceeded to answer question Q0600 (see Appendix II- Table C). Table 2 shows a higher percent of short-stay residents in the ‘Remainder’ row than long-stay residents (77.1% versus 8.9%), which would be expected.

Table 2: Number of Residents Stating They Want to Talk With Someone about Returning to the Community

Q0500. Return to Community	All Residents		Short-Stay Only		Long-Stay Only	
	Count	Percent	Count	Percent	Count	Percent
0. No	72,899	35.0%	17,809	14.2%	55,090	66.1%
1. Yes	16,360	7.9%	6,608	5.3%	9,752	11.7%
9. Unknown or uncertain	15,381	7.4%	4,276	3.4%	11,105	13.3%
Remainder	103,763	49.8%	96,387	77.1%	7,376	8.9%
Total	208,403	100%	125,080	100%	83,323	100%

Reported Referrals to a Local Contact Agency

Table 3 shows that overall, 28,727 (13.8%) of all residents were referred to LCAs. Of these referred, only 6,371 (22.2%) were long-stay residents. Another way to look at the data is only 7.6% of all long-stay residents were referred to LCAs.

Table 3: Number of Referrals Made to Local Contact Agency

Q0600. Referral	All Residents		Short-Stay Only		Long-Stay Only	
	Count	Percent	Count	Percent	Count	Percent
0. No – referral not needed	166,026	79.7%	94,855	75.8%	71,171	85.4%
1. No – referral is or may be needed	12,674	6.1%	6,935	5.5%	5,739	6.9%
2. Yes – referral made	28,727	13.8%	22,356	17.9%	6,371	7.6%
Remainder	976	0.5%	934	0.7%	42	0.1%
Total	208,403	100%	125,080	100%	83,323	100%

Length of Stay and Outcomes

To assess resident outcomes in terms of discharge status, Table 4 presents resident counts by cohort, length-of-stay, and discharge status.

Table 4 shows that 4.3% of residents discharged to the community were long-stay residents. Long-stay residents comprised two-thirds of the residents who were not discharged.

Table 4: Resident Length of Stay and Resident Outcome Status

	Discharged to community		Not discharged to community		Total	
	Count	Percent	Count	Percent	Count	Percent
Short-Stay Residents	87,132	95.7%	37,948	32.3%	125,080	60%
Long-Stay Residents	3,945	4.3%	79,378	67.7%	83,323	40%
All Residents	91,077	100%	117,326	100%	208,403	100%

The analysis of key MDS 3.0, Section Q questions is based on additional data outcomes presented in Appendix II. Table A and Table B illustrate the relationships between residents who were discharged to the community and those who were not discharged, as well as their responses to question Q0500, “Do you want to talk to someone about ... returning to the community,” and question Q0600, “Has a referral been made to the Local Contact Agency,” respectively. Table C analyzes the interplay between the answering of question Q0500 and the skip pattern in Q0400.

Table A is a set of three tables: Table A provides aggregate counts, Table A1 provides counts of long-stay residents, and Table A2 provides counts of short-stay residents. Table B is an analogous set of three tables. Table C is a set of two tables: Table C for all residents and Table C1 for those discharged.

From Table A1 and Table B1 (Appendix II), it can be determined that of the 9,752 long-stay residents who wanted to talk with someone about returning to the community, only 1,637 (16.8%) of them received a referral. From Table A1, it can be determined that of those 1,637 residents that received a referral, only 345 (21.6%) of them were discharged to the community.

Appendix III presents a statistical analysis of the following four research questions:

- A. Does answering 'Yes' to Q0500 increase the likelihood that a resident would be referred to an LCA?
- B. Does a referral to an LCA increase the likelihood that a resident would be successfully discharged to the community?
- C. Does answering 'Yes' to Q0500 increase the likelihood that a resident would be successfully discharged to the community?
- D. What is the status of the residents who did not receive a referral?

In Appendix III, sets of chi-square statistical analyses presented in Tables D-H address each of these four research questions. The expected answer to the first three of these research questions is 'Yes', and this expectation is confirmed by the chi-square analysis. Several of the findings included below are based on the analysis presented in Appendix III, including the finding that long-stay residents who indicated they wanted to talk to someone about returning to the community were four times more likely to receive a referral to an LCA (19.9%) compared to those who indicated they did not want to talk to someone about returning to the community (5%), (see Appendix III- Table E).

Data Limitations

The new version of MDS data, MDS 3.0, does not identify the insurance payer source for each SNF resident. This makes it problematic to identify Medi-Cal residents who might potentially benefit from the Money Follows the Person program. OSHPD data may partially address this problem by providing a proxy measure by payer source at the facility level. However, this is beyond the scope of this report.

This report utilizes MDS 3.0 data which is not linked to any data on LCA activities. This limits the analysis to only partially address information requested in this mandated report. Existing data is insufficient to provide analysis of LCA response to referrals or any LCA activities as mandated, per 2a on page 6.

Also, the MDS 3.0 Section Q assessments utilize a format that skips questions if pre-identified criteria are met in preceding questions. This analysis uses Section Q 0400, 0500, and 0600. All residents complete 0400 and 0600, but question 0500 is often skipped if there is a "Yes" response for 0400 that indicates Active Discharge Planning is ongoing. This is an important distinction because those who respond to question 0500 are a smaller subset of residents who do not have Active Discharge Plans (see Appendix I).

On August 23, 2013, CMS issued Memo 2013-098: Survey and Certification Memo: "MDS 3.0 Discharge Assessments-Provider Action Required by September 30, 2013." In this memo, CMS clarified action steps to address MDS 3.0 discharge assessments that had not been completed and/or submitted as required under 42 CFR § 483.20(g) and 42 CFR 483 § (f)(1) with the expectation that nursing homes would complete the discharge assessments for inactive residents by September 30, 2013. The data extract for this report was completed on August 4, 2013, prior to the issuance of the memo; therefore, changes made to MDS 3.0 as a result of this memo are not included in the report.

To determine if the actions resulting from this memo had a meaningful impact on the findings, a second extract with identical specifications to the first was completed on December 5, 2013. The resulting comparison showed:

- The total number of included residents increased by less than half a percent;
- The total number of residents discharged increased by just over two percent and the total number not discharged falls to a lesser degree; and
- There was no difference between the short-stay and long-stay residents.

In conclusion, while missing data is a significant limitation in any dataset, the extent of the differences between the counts obtained from each of the two data extractions is not sufficiently different to presume biased data.

Key Findings

Key findings of this analysis are as follows:

- There were 208,403 residents included in this analysis; 83,323 (40%) long-stay residents, and 125,080 (60%) short-stay residents (see Table 2). Active discharge planning is more likely to occur with short-stay residents than long-stay residents, resulting in long-stay residents being more reliant on referrals to LCAs to return to the community. About 20.3% of long-stay residents who were discharged had active discharge planning in place (see Tables C and C1).
- Only a very small percent of all residents indicated that they wanted to talk to someone about returning to the community; 16,360 (7.9%) of all residents, and 9,752 (11.7%) of long-stay residents (see Table 2).
- Almost two-thirds 55,090 (66.1%) of long-stay residents indicated they did *not* want to talk to someone about returning to the community. There were more long-stay residents, 11,105 (13.3%), who answered “unknown or uncertain” when they were asked if they wanted to speak with someone about returning to the community, than there were residents who answered “yes,” 9,752 (11.7%), (see Table 2).
- Long-stay residents who indicated they wanted to talk to someone about returning to the community were four times more likely to receive a referral to an LCA (19.9%) compared to those indicated they did not want to talk to someone about returning to the community (5%), (see Table E).
- Of the 28,737 residents who were reportedly referred to LCAs, only 6,371 (22.2%) were long-stay residents. In contrast, 22,356 (77.8%) of the referrals to an LCA were for short-stay residents (see Table 3).

- For long-stay residents, the key to being discharged to the community was receiving a referral to an LCA. A long-stay resident who received a referral was six times more likely to be discharged to the community (20.1%), compared to one who did not receive a referral (3.2%), (see Table F).
- For all residents, only 3,945 (4.3%) of those discharged to the community were long-stay residents compared to 87,132 (95.7%) of short-stay residents discharged to the community (see Table 4).
- Of the 1,637 long-stay residents who wanted to talk to someone about returning to the community and also received a referral, only 345 (21.1%) were discharged (see Tables A1 and E).

Additional findings:

- In the six-month time period in the first half of 2013, 43.7% (91,077) of all residents returned to the community; only 4.3% (3,945) were long-stay residents, (see Table 4).
- Of the 6,751 (91.5%) long-stay residents who did not answer question Q0500, “Do you want to talk to someone about ... returning to the community,” because they had active discharge planning, 1,369 (20.3%) were discharged to the community in the first half of 2013, which in absolute terms is one-third of those discharged (see Appendix II- Tables C and C1). This might be considered an atypical process.
- While the analysis shows those who receive referrals are more likely to be discharged, only 19.9% of long-stay residents who indicated they did want to speak to someone about returning to the community (‘Yes’ to question Q0500 received referrals, (see Appendix III- Table E).

Recommendations and Future Research Considerations

The analysis of this data leads to several recommendations for future research considerations:

- A deeper analysis of the MDS 3.0 Section Q data, including risk adjusting, needs to be completed to better understand which residents are indicating a desire to talk to someone about returning to the community (‘Yes’ to Q0500) and receiving referrals.
- The new version of MDS data, MDS 3.0, does not identify the insurance payer source for each SNF resident. This makes it problematic to identify Medi-Cal residents who potentially could benefit from the Money Follows the Person (MFP) Rebalancing Demonstration, known as CCT. It could be valuable to work with the Office of Statewide Health Planning and Development (OSHPD) to identify data that may partially address this problem by developing a proxy measure by payer source at the facility level. However, this is beyond the scope of this report and is considered a future research consideration.

- MDS 3.0 Section Q data only measures part of what the legislative mandate requires to be reported. It can measure the number of residents asked about returning to the community and whether a referral has been made to the LCA; however, it cannot track activities beyond what is reported by the nursing facility. While some additional data is collected by DHCS, it is not cross-referenced with MDS 3.0 and is not representative of the volume of referrals in this report. Additional data collection through other venues and analysis needs to be considered to review referrals in the community.

Action items and recommendations:

This report can only look at data that is currently reported to the MDS 3.0 system. An overall review of the data indicates there may be concern about how Section Q is being interpreted, implemented (or asked) in the facilities, and/or data input. Additional training may be needed to assist facilities in correctly interpreting Section Q, asking residents questions, and inputting the data.

While much can be done to improve data quality related to Section Q, DHCS's CCT Program has to identify alternative mechanisms to assist Medi-Cal nursing facility residents to transition to community settings. Efforts are underway to:

1. Expand the current list of LCAs specialized in providing transitional services. They include Independent Living Centers, providers of Multipurpose Senior Services Program (MSSP), home health agencies, and other care coordination agencies. DHCS will be engaging Medi-Cal managed care plans in CCI counties to undertake transition of their plan members in nursing facilities;
2. Strengthen mechanisms to identify newly admitted Medi-Cal nursing facility residents through DHCS claims system and make referrals to LCAs. DHCS will also work with Medi-Cal Managed Care plans to identify their plan members in nursing facilities;
3. Strengthen relations between LCAs, housing providers, and Medi-Cal Home and Community Based Services Programs, including the existing 1915(c) waiver programs, to receive nursing facility discharges;
4. Execute the new CMS-HUD rental assistance program to develop 335 housing units to receive nursing facility discharges; and,
5. Integrate the CCI in eight counties which will focus on alleviating fragmentation to services and care coordination, fragmentation forces beneficiaries to access services through a complex system of disconnected programs at different levels of care. This fragmentation often leads to beneficiary confusion, delayed care, inappropriate utilization and unnecessary costs. Integrating all services and financing for Medi-Cal beneficiaries will promote care coordination and result in improved beneficiary health and lower costs.

Appendix I

Resident _____	Identifier _____	Date _____
Section Q Participation in Assessment and Goal Setting		
Q0100. Participation in Assessment		
Enter Code <input type="checkbox"/>	A. Resident participated in assessment 0. No 1. Yes	
Enter Code <input type="checkbox"/>	B. Family or significant other participated in assessment 0. No 1. Yes 9. No family or significant other available	
Enter Code <input type="checkbox"/>	C. Guardian or legally authorized representative participated in assessment 0. No 1. Yes 9. No guardian or legally authorized representative available	
Q0300. Resident's Overall Expectation Complete only if A0310E = 1		
Enter Code <input type="checkbox"/>	A. Select one for resident's overall goal established during assessment process 1. Expects to be discharged to the community 2. Expects to remain in this facility 3. Expects to be discharged to another facility/institution 9. Unknown or uncertain	
Enter Code <input type="checkbox"/>	B. Indicate information source for Q0300A 1. Resident 2. If not resident, then family or significant other 3. If not resident, family, or significant other, then guardian or legally authorized representative 9. Unknown or uncertain	
Q0400. Discharge Plan		
Enter Code <input type="checkbox"/>	A. Is active discharge planning already occurring for the resident to return to the community? 0. No 1. Yes → Skip to Q0600, Referral	
Q0490. Resident's Preference to Avoid Being Asked Question Q0500B Complete only if A0310A = 02, 06, or 99		
Enter Code <input type="checkbox"/>	Does the resident's clinical record document a request that this question be asked only on comprehensive assessments? 0. No 1. Yes → Skip to Q0600, Referral 8. Information not available	
Q0500. Return to Community		
Enter Code <input type="checkbox"/>	B. Ask the resident (or family or significant other if resident is unable to respond): "Do you want to talk to someone about the possibility of leaving this facility and returning to live and receive services in the community?" 0. No 1. Yes 9. Unknown or uncertain	
Q0550. Resident's Preference to Avoid Being Asked Question Q0500B Again		
Enter Code <input type="checkbox"/>	A. Does the resident (or family or significant other or guardian, if resident is unable to respond) want to be asked about returning to the community on all assessments? (Rather than only on comprehensive assessments.) 0. No - then document in resident's clinical record and ask again only on the next comprehensive assessment 1. Yes 8. Information not available	
Enter Code <input type="checkbox"/>	B. Indicate information source for Q0550A 1. Resident 2. If not resident, then family or significant other 3. If not resident, family or significant other, then guardian or legally authorized representative 8. No information source available	
Q0600. Referral		
Enter Code <input type="checkbox"/>	Has a referral been made to the Local Contact Agency? (Document reasons in resident's clinical record) 0. No - referral not needed 1. No - referral is or may be needed (For more information see Appendix C, Care Area Assessment Resources #20) 2. Yes - referral made	

Appendix II

The analysis of key MDS 3.0 Section Q questions is based on Table A and Table B, which show relationships between residents discharged to the community and those who were not discharged, and their responses to question Q0500, “Do you want to talk to someone about ... returning to the community,” and question Q0600, “Has a referral been made to the Local Contact Agency,” respectively.

Table A is actually a set of three tables: Table A1 provides counts of long-stay residents, Table A2 provides counts of short-stay residents, and Table A provides aggregate counts. Table B is an analogous set of three tables.

Table A: Responses to Q0500 and Q0600 of all California SNF Residents Discharged in 1st half of 2013

Q0500/Q0600	0. Referral Not Needed		1. Referral Is/May be Needed		2. Referral Made		Remainder	Total	
	Count	Percent	Count	Percent	Count	Percent		Count	Count
0. No	6,472	9.7%	675	15.9%	2,528	13.0%	0	9,675	10.6%
1. Yes	2,217	3.3%	587	13.8%	1,550	7.9%	2	4,356	4.8%
9. Unknown/Uncertain	1,076	1.6%	268	6.3%	578	3.0%	6	1,928	2.1%
Remainder	57,146	85.4%	2,713	63.9%	14,845	76.1%	414	75,118	82.5%
Total	66,911		4,243		19,501		422	91,077	

Table A1: Responses to Q0500 and Q0600 of all Long Stay SNF Residents Discharged in 1st half of 2013

Q0500/Q0600	0. Referral Not Needed		1. Referral Is/May be Needed		2. Referral Made		Remainder	Total	
	Count	Percent	Count	Percent	Count	Percent		Count	Count
0. No	934	40.8%	113	30.3%	410	32.0%	0	1,457	36.9%
1. Yes	273	11.9%	107	28.7%	345	26.9%	0	725	18.4%
9. Unknown/Uncertain	195	8.5%	54	14.5%	130	10.1%	0	379	9.6%
Remainder	887	38.8%	99	26.5%	398	31.0%	0	1,385	35.1%
Total	2,289		373		1,283		0	3,945	

Table A2: Responses to Q0500 and Q0600 of all Short Stay SNF Residents Discharged in 1st half of 2013

Q0500/Q0600	0. Referral Not Needed		1. Referral Is/May be Needed		2. Referral Made		Remainder	Total	
	Count	Percent	Count	Percent	Count	Percent		Count	Count
0. No	5,538	8.6%	562	14.5%	2,118	11.6%	0	8,218	9.4%
1. Yes	1,944	3.0%	480	12.4%	1,205	6.6%	2	3,631	4.2%
9. Unknown/Uncertain	881	1.4%	214	5.5%	448	2.5%	6	1,549	1.8%
Remainder	56,259	87.1%	2,614	67.5%	14,447	79.3%	414	73,734	84.6%
Total	64,622		3,870		18,218		422	87,132	

Table B: Responses to Q0500 and Q0600 of all California SNF Residents Not Discharged in 1st half of 2013

Q0500/Q0600	0. Referral Not Needed		1. Referral Is/May be Needed		2. Referral Made		Remainder	Total	
	Count	Percent	Count	Percent	Count	Percent		Count	Count
0. No	57,378	57.9%	2,858	33.9%	2,984	32.3%	4	63,224	53.9%
1. Yes	8,120	8.2%	2,038	24.2%	1,844	20.0%	2	12,004	10.2%
9. Unknown/Uncertain	10,990	11.1%	1,536	18.2%	903	9.8%	24	13,453	11.5%
Remainder	22,627	22.8%	1,999	23.7%	3,495	37.9%	524	28,645	24.4%
Total	99,115		8,431		9,226		554	117,326	

Table B1: Responses to Q0500 and Q0600 of all Long Stay SNF Residents Not Discharged in 1st half of 2013

Q0500/Q0600	0. Referral Not Needed		1. Referral Is/May be Needed		2. Referral Made		Remainder	Total	
	Count	Percent	Count	Percent	Count	Percent		Count	Count
0. No	49,155	71.4%	2,267	42.2%	2,209	43.4%	2	53,633	67.6%
1. Yes	6,296	9.1%	1,438	26.8%	1,292	25.4%	1	9,027	11.4%
9. Unknown/Uncertain	8,954	13.0%	1,136	21.2%	629	12.4%	7	10,726	13.5%
Remainder	4,477	6.5%	525	9.8%	958	18.8%	32	5,992	7.5%
Total	68,882		5,366		5,088		42	79,378	

Table B2: Responses to Q0500 and Q0600 of all Short Stay SNF Residents Not Discharged in 1st half of 2013

Q0500/Q0600	0. Referral Not Needed		1. Referral Is/May be Needed		2. Referral Made		Remainder	Total	
	Count	Percent	Count	Percent	Count	Percent		Count	Count
0. No	8,223	27.2%	591	19.3%	775	18.7%	2	9,561	25.2%
1. Yes	1,824	6.0%	600	19.6%	552	13.3%	1	2,977	7.8%
9. Unknown/Uncertain	2,036	6.7%	400	13.1%	274	6.6%	17	2,727	7.2%
Remainder	18,150	60.0%	1,474	48.1%	2,537	61.3%	492	22,653	59.7%
Total	30,233		3,065		4,138		512	37,948	

Table C: Breakdown of All Residents' answers to Q0500 and the Skip Pattern of Q0400

Was question 00500 answered?	Options in answering 00500 or 00400	All Residents. Discharged and Not Discharged			
		All Residents	Percent of subtotal	Long-Stay Only	Percent of subtotal
YES	0. No	72,899	69.7%	55,090	72.5%
	1. Yes	16,360	15.6%	9,752	12.8%
	9. Unknown or uncertain	15,381	14.7%	11,105	14.6%
	Subtotal	104,640	100.0%	75,947	100.0%
NO	00400. Discharge Plan = Yes; Valid Skip Pattern	100,078	96.4%	6,751	91.5%
	00400. Discharge Plan = No or = blank; Invalid Skip Pattern	3,685	3.6%	625	8.5%
	Subtotal	103,763	100.0%	7,376	100.0%
Total		208,403		83,323	

Table CI: Breakdown of Discharged Residents' answers to Q0500 and the Skip Pattern of Q0400

Was question 00500 answered?	Options in answering 00500 or 00400	Residents Discharged to Community			
		All Residents	Percent of subtotal	Long-Stay Only	Percent of subtotal
YES	0. No	9,675	60.6%	1,457	56.9%
	1. Yes	4,356	27.3%	725	28.3%
	9. Unknown or uncertain	1,928	12.1%	379	14.8%
	Subtotal	15,959	100.0%	2,561	100.0%
NO	00400. Discharge Plan = Yes; Valid Skip Pattern	73,783	98.2%	1,369	98.9%
	00400. Discharge Plan = No or = blank; Invalid Skip Pattern	1,335	1.8%	15	1.1%
	Subtotal	75,118	100.0%	1,384	100.0%
Total		91,077		3,945	

Appendix III

Chi-Square Results

To gauge whether this four point framework at least minimally fulfills its intent, the following four research questions were posed:

- A. Does answering 'Yes' to Q0500 increase the likelihood that a resident would be referred to an LCA?
- B. Does a referral to an LCA increase the likelihood that a resident would be successfully discharged to the community?
- C. Does answering 'Yes' to Q0500 increase the likelihood that a resident would be successfully discharged to the community?
- D. What is the status of the residents who did not receive a referral?

The emerging institutional framework that encourages residents to return to the community is targeted at long-stay residents because this transition becomes more difficult the longer the stay. Hence, this report is focused on long-stay residents, especially with regard to research question D.⁶

Each of these research questions have to do with the relationship between two categorical variables. A categorical variable groups and counts how many residents fall into two or more options such as Yes/No for Q0500 or Discharged/Not Discharged. The hypothesized answers to the first three research question are that a 'Yes' answer to the predictor variable is associated with a greater likelihood of the response variable being an outcome of either a referral or a discharge to the community.

The relationship between two categorical variables is usually displayed in a two-way contingency table such as the one presented in Table D for 'Observed Counts' from the MDS 3.0 data with the categories for Q0500 as rows and categories for Q0600 as columns. Each combination of a row and a column is referred to as a cell.

Table D: Observed and Expected Counts of Q0500 and Q0600

Q0500 \ Q0600	Observed Counts		Expected Counts	
	0. No-referral not needed	2. Yes-referral made	0. No-referral not needed	2. Yes-referral made
0. No	63,850	5,512	61,928	7,434
1. Yes	10,337	3,394	12,259	1,472

⁶ The following is a pertinent quote from CMS's May 2013 RAI Manual: "For residents who have been in the facility for a long time, it is important to discuss with them their interest in talking with local contact agency (LCA) experts about returning to the community. There are improved community resources and supports that may benefit these residents and allow them to return to a community setting." (p. Q-8)

The chi-square test is the appropriate statistic to determine whether or not a relationship exists between two categorical variables as well as to gauge the extent of such a relationship if it exists.⁷ The chi-square statistic is based on differences between the observed counts and the expected counts in each cell. The expected count is the count that would exist in each cell if there is *no* relationship between the two categorical variables. Table D compares the observed and expected counts of responses to Q0500 and Q0600. All else equal, the larger the difference between the observed and expected counts the more statistically significant the chi-square test. The formula for the chi-square statistic is as follows:

$$\text{Chi-square statistic} = \text{Sum of } ((\text{Observed Count} - \text{Expected Count})^2 / (\text{Expected Count}))$$

The resultant value calculated using this formula in any specific case (when used in tandem with the number of degrees of freedom) enables one to determine the probability that the two variables may be related only by chance. The parameter called degrees of freedom is defined as follows: (the number of categories in the row variable minus one) multiplied by (the number of categories in the column variable minus one).

Four sets of chi-square statistical calculations presented in the tables below address each of the first four research questions, cited earlier. Each set includes separate calculations for all residents, for short-stay residents only, and for long-stay residents only. These tables also include information on the chi-square test. For all the chi-square statistical calculations presented below, it is extremely unlikely—with a probability less than one in ten thousand—that the relationship between the two variables is due only to chance.

One reason why the relationship in all cases is so statistically significant is because the sample size is so large; indeed, in this analysis nearly the entire population of SNF residents in the given time period is being evaluated, not just a partial sample. Since the analysis is of the population, the extent of the relationship between two categorical variables can be measured directly.

⁷ The first three sets of chi-square tests of frequency counts presented later in this section involve 2 X 2 two-way contingency tables in which the options are basically 'Yes' and 'No'; such 2 X 2 tables are easier to interpret. Specifically the analyses presented below exclude for Q0500 the option '9. Unknown or uncertain' as well as for Q0600 the option 'No – referral is or may be needed'. Still, when chi-square tests were conducted that included these additional options, the statistical results are also highly significant. The fourth set of chi-square tests includes all options for Q0600, which in this case results in a 3 X 2 two-way contingency table.

The relationship between MDS 3.0 Section Q questions Q0500 and Q0600 is shown in Table E.

Table E: Relationship between Q0500 and Q0600

Q0600 \ Q0500	0. No-referral not needed		2. Yes-referral made		Total		Chi-Square Test		
	Count	Percent	Count	Percent	Count	Percent	Degrees of Freedom	Value	Probability
A. All Residents							1	3368.99	<.0001
0. No	63,850	92.1%	5,512	7.9%	69,362	100.0%			
1. Yes	10,337	75.3%	3,394	24.7%	13,731	100.0%			
Total	74,187	89.3%	8,906	10.7%	83,093	100.0%			
B. Short-Stay Only							1	521.31	<.0001
0. No	13,761	82.6%	2,893	17.4%	16,654	100.0%			
1. Yes	3,768	68.2%	1,757	31.8%	5,525	100.0%			
Total	17,529	79.0%	4,650	21.0%	22,179	100.0%			
C. Long-Stay Only							1	2451.78	<.0001
0. No	50,089	95.0%	2,619	5.0%	52,708	100.0%			
1. Yes	6,569	80.1%	1,637	19.9%	8,206	100.0%			
Total	56,658	93.0%	4,256	7.0%	60,914	100.0%			

Note: Data utilized in this Table must have responses for both Q0500 and Q0600. If either Q0500 or Q0600 has missing data it is excluded. Remainders and missing data are not included in the Counts provided in this Table.

Table E shows that, if a resident answers 'Yes' to Q0500, he/she is more likely to get a referral to an LCA. The key location on Table E for seeing this is the 'Percent' column for the Q0600 category 'Yes-referral made'.

While for all residents answering 'Yes' to Q0500 increases threefold the likelihood of receiving a referral, for long-stay residents there is a fourfold increase in the likelihood of receiving a referral ($19.9/5.0 \approx 3.98$). While this same pattern exists to a lesser extent for short-stay residents, one should recall that many short-stay residents do not answer Q0500 because of a skip pattern at Q0400.

Note that the increased likelihood of getting a referral is in *relative* terms. In absolute terms, more residents actually got a referral who answered 'No' to Q0500—2,619 versus 1,637 for long-stay residents, but this is more than compensated because residents who answered 'No' to Q0500 were six times the number of those who answered 'Yes'—that is, $52,708/8,206 \approx 6.4$. The relationship between Q0600 and discharge status is presented in Table F.

Table F: Relationship between Q0600 and Discharge Status

Discharge Status Q0600	Not Discharged		Discharged		Total		Chi-Square Test		
	Count	Percent	Count	Percent	Count	Percent	Degrees of Freedom	Value	Probability
A. All Residents									
0. No-referral not needed	99,115	59.7%	66,911	40.3%	166,026	100.0%	1	7548.25	<.0001
2. Yes-referral made	9,226	32.1%	19,501	67.9%	28,727	100.0%			
Total	108,341	55.6%	86,412	44.4%	194,753	100.0%			
B. Short-Stay Only									
0. No-referral not needed	30,233	31.9%	64,622	68.1%	94,855	100.0%	1	1558.90	<.0001
2. Yes-referral made	4,138	18.5%	18,218	81.5%	22,356	100.0%			
Total	34,371	29.3%	82,840	70.7%	117,211	100.0%			
C. Long-Stay Only									
0. No-referral not needed	68,882	96.8%	2,289	3.2%	71,171	100.0%	1	3810.49	<.0001
2. Yes-referral made	5,088	79.9%	1,283	20.1%	6,371	100.0%			
Total	73,970	95.4%	3,572	4.6%	77,542	100.0%			

Note: Data utilized in this Table must have responses for both Q0600 and A2100. If either Q0600 or A2100 has missing data it is excluded. Remainders and missing data are not included in the Counts provided in this Table.

While, according to Table F, for all residents a referral increases 1.7 times the likelihood that there would be a discharge to the community, for long-stay residents there is a six fold increase in the likelihood that there would be a discharge to the community ($20.1/3.2 \approx 6.3$). In absolute terms, the number of short-stay residents who were discharged of course dwarfs the number of long-stay residents who were discharged regardless of how Q0600 was answered.

The relationship between Q0500 and Discharge Status as presented in Table G.

Table G: Relationship between Q0500 and Discharge Status

Q0500 \ Discharge Status	Not Discharged		Discharged		Total		Chi-Square Test		
	Count	Percent	Count	Percent	Count	Percent	Degrees of Freedom	Value	Probability
A. All Residents							1	1798.54	<.0001
0. No	63,224	86.7%	9,675	13.3%	72,899	100.0%			
1. Yes	12,004	73.4%	4,356	26.6%	16,360	100.0%			
Total	75,228	84.3%	14,031	15.7%	89,259	100.0%			
B. Short-Stay Only							1	149.54	<.0001
0. No	9,591	53.9%	8,218	46.1%	17,809	100.0%			
1. Yes	2,977	45.1%	3,631	54.9%	6,608	100.0%			
Total	12,568	51.5%	11,849	48.5%	24,417	100.0%			
C. Long-Stay Only							1	584.49	<.0001
0. No	53,633	97.4%	1,457	2.6%	55,090	100.0%			
1. Yes	9,027	92.6%	725	7.4%	9,752	100.0%			
Total	62,660	96.6%	2,182	3.4%	64,842	100.0%			

Note: Data utilized in this Table must have responses for both Q0500 and A2100. If either Q0500 or A2100 has missing data it is excluded. Remainders and missing data are not included in the Counts provided in this Table.

While, according to Table G, for all residents answering ‘Yes’ to Q0500 increases twofold likelihood that there would be a discharge to the community, for long-stay residents there is nearly a threefold increase in the likelihood that there would be a discharge to the community ($7.4/2.6 \approx 2.85$).

The last research question explores what happened to residents who didn't get a referral to an LCA and is presented in Table H. In addressing this question, all three categories of Q0600 are considered, instead of just the two categories considered in our analysis of the second research question in Table F. The additional category is '1. No-referral is or may be needed'. Note that, regardless of what this category says, still a referral has not yet been made; thus, to evaluate this option's effect on discharge status, it's assumed it would have a similar effect as the first option, i.e. '0. No-referral not needed'. Therefore these two options were combined together as the group of residents who have not gotten a referral.

Table H: What happened to residents that did not get a referral?

Discharge Status Q0600	Not Discharged		Discharged		Total		Chi-Square Test		
	Count	Percent	Count	Percent	Count	Percent	Degrees of Freedom	Value	Probability
A. All Residents									
0. No-referral not needed	99,115	59.7%	66,911	40.3%	166,026	100.0%	2	8146.39	<.0001
1. No-referral is or may be needed	8,431	66.5%	4,243	33.5%	12,674	100.0%			
2. Yes-referral made	9,226	32.1%	19,501	67.9%	28,727	100.0%			
Total	116,772	56.3%	90,655	43.7%	207,427	100.0%			
B. Short-Stay Only									
0. No-referral not needed	30,233	31.9%	64,622	68.1%	94,855	100.0%	2	2221.57	<.0001
1. No-referral is or may be needed	3,065	44.2%	3,870	55.8%	6,935	100.0%			
2. Yes-referral made	4,138	18.5%	18,218	81.5%	22,356	100.0%			
Total	37,436	30.2%	86,710	69.8%	124,146	100.0%			
C. Long-Stay Only									
0. No-referral not needed	68,882	96.8%	2,289	3.2%	71,171	100.0%	2	3753.06	<.0001
1. No-referral is or may be needed	5,366	96.8%	373	3.2%	5,739	100.0%			
2. Yes-referral made	5,088	79.9%	1,283	20.1%	6,371	100.0%			
Total	79,336	95.4%	3,945	4.6%	83,281	100.0%			

Note: Data utilized in this Table must have responses for both 0600 and A2100. If either 0600 or A2100 has missing data it is excluded. Remainders and missing data are not included in the Counts provided in this Table.

Referring to the 'Percent' column of the 'Discharged' category, additional Q0600 category—"1. No-referral is or may be needed"—is somewhat less likely to result in discharge to the community than either of the other two categories for both all residents and for short-stay residents.

For long-stay residents, the '0. No-referral not needed' category and the '1. No-referral is or may be needed' category have the same very low discharge rate of 3.2%. Combining these two categories thus makes sense empirically. Hence, for long-stay residents that have gotten a referral there is still a six fold increase in the likelihood of a discharge to the community ($20.1/3.2 \approx 6.3$) compared to those that have not gotten a referral.

The answer to the research question, "What is the status of the residents who did not receive a referral?" is that residents who did not receive a referral were much less likely to be discharged to the community, especially long-stay residents.