

California Department of Public Health

Center for Health Care Quality

Agreement No. 15-10330

Skilled Nursing Facility
Quality and Accountability Program:
Staffing Retention
Quality Measure Recommendation
Report

August 2015

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Overview

California legislation requires the California Department of Public Health (CDPH) and the California Department of Health Care Services (DHCS) to implement a Skilled Nursing Facility (SNF) Quality and Accountability Program (QAP). As part of this statutory requirement, CDPH and DHCS are required to expand the SNF QAP measure set to include direct care staff retention.

The most recent California Trailer Bill, passed in the summer of 2015, that supplements California Assembly Bill 19, mandated that direct care staff retention (hereinafter referred to as “staffing retention”) be added as a performance measure, if sufficient data is available, under the SNF QAP beginning with the 2015-2016 fiscal year.

CDPH contracted with Health Services Advisory Group, Inc. (HSAG) to assist with developing staff retention measurements.

Importance of Nursing Home Staffing Retention

Staffing retention is defined as an organization’s ability to keep and maintain its employees over a given period of time. It is in an organization’s best interest to keep employees in the company once they have been trained and integrated into the team. Employees should be considered an “appreciating asset” – meaning that they appreciate in value over time, and the longer someone stays at an organization, the more productive and valuable they are.¹⁻¹

Research has shown a positive correlation between nursing home staff retention and quality.^{1-2,1-3} The general premise around health care quality and nursing home staffing retention is that the longer staff are employed at a particular facility, the more knowledge they will have of the facility’s patient mix, policies, and procedures. This familiarity will ultimately lead to staff being able to provide better care compared to new hires. Also, individuals being cared for in SNFs are more comfortable with staff members they know. In turn, an improved patient-provider relationship will enable those staff members to better respond to the needs of the individuals they are caring for as they become more familiar with their patients, more perceptive to changes in health status and behavior, and are better able to anticipate the needs of their patients.¹⁻⁴

¹⁻¹ Shriar, Jacob. OfficeVibe. *The Importance of Employee Retention*. March 2015. Available at: <https://www.officevibe.com/blog/importance-employee-retention>. Accessed on: August 14, 2015.

¹⁻² Advancing Excellence in America’s Nursing Homes. *Fast Facts: Staff Retention*. Available at: <https://www.nhqualitycampaign.org/files/factsheets/Consumer%20Fact%20Sheet%20-%20Staff%20Retention.pdf>. Accessed on: August 8, 2015.

¹⁻³ Barry, Theresa. *Nurse Aide Empowerment Strategies and Staff Stability: Effects on Nursing Home Resident Outcomes*. December 6, 2004.

¹⁻⁴ American Health Care Association 2012 Staffing Report. Improving Lives by Delivering Solutions for Quality Care. Available at: http://www.ahcancal.org/research_data/staffing/Documents/2012_Staffing_Report.pdf. Accessed on: August 14, 2015.

Research

HSAG performed a literature review to identify staffing retention measures. Table 1-1 displays the most common staffing measurement areas found in the literature review.^{1-5,1-6} Various organizations such as nursing homes, long-term care facilities, physician offices, and hospital associations use these metrics to evaluate staffing.

Table 1-1: Staffing Measurement Areas	
Measures	Measure Description
Retention rate	The percentage of employees who have worked in an organization at the beginning and end of the measurement period.
Turnover rate	The percentage of employees who left (voluntarily or involuntarily) an organization during the measurement period.
Average tenure of current staff	The average number of months current staff have worked at an organization during the measurement period.
Average tenure of staff who have left	The average number of months staff who left worked at an organization during the measurement period.
Length of employment	The total number of months an employee has worked for an organization during the measurement period.
Vacancy rate	The percentage of vacant job-specific positions (or positions within the whole organization) during the measurement period.

¹⁻⁵ Building a Recruitment and Retention Plan. In *Substance Abuse and Mental Health Services Administration (SAMHSA)*. Retrieved July 23, 2015, from <http://toolkit.ahpnet.com/Building-a-Recruitment-and-Retention-Plan/Step-1-Gather-Organizational-Baseline-Information/Gather-Organizational-Baseline-Info-Quick-Tool/How-to-Determine-Retention-Turnover-Vacancy-Rates.aspx>.

¹⁻⁶ Castle, Nicholas G. *The Influence of Consistent Assignment on Nursing Home Deficiency Citations*. May 26, 2011.

Proposed Staffing Retention Measures

Based on measures that HSAG has researched, HSAG proposes two staffing retention measures for consideration: 1) Retention Rate and 2) Average Tenure of Current Staff.²⁻¹ HSAG chose these measures for evaluation as a way to gather staffing retention information from the SNFs because these are widely used measures in nursing homes and other organizations. Since the data elements used for the calculation of these measures are elements that most nursing homes are already collecting, this will reduce the data collection burden on the nursing homes. These measures will provide valuable information about the SNFs staffing mix and how long their staff members are staying at the facility. A description of the measures is provided below.

Retention Rate

This measure evaluates a cohort of individual nursing staff members for a period of a year for each SNF.

Measure Description: the percentage of employees who were working for the facility at both the beginning and end of the performance period.

Numerator: the total number of nursing staff members in a SNF at the end of the performance period. Only the staff members who were included in the denominator at the beginning of the performance period should be included in the numerator.

Denominator: the total number of nursing staff members in a SNF at the beginning of the performance period.

Performance Period: July 1, 2015 – June 30, 2016

Average Tenure of Current Staff

This measure evaluates the average length of time current nursing staff members at each SNF have worked for that facility.

Measure Description: the average number of months SNF nursing staff have worked at the SNF.

Numerator: the sum of months worked by all nursing staff employed by the SNF, from employee start date to end date or to the end of the performance period if still employed by the facility.

Denominator: the total number of staff members in a SNF at the end of the performance period.

Performance Period: July 1, 2015 – June 30, 2016

²⁻¹ Building a Recruitment and Retention Plan. In *Substance Abuse and Mental Health Services Administration (SAMHSA)*. Retrieved July 23, 2015, from <http://toolkit.ahpnet.com/Building-a-Recruitment-and-Retention-Plan/Step-1-Gather-Organizational-Baseline-Information/Gather-Organizational-Baseline-Info-Quick-Tool/How-to-Determine-Retention-Turnover-Vacancy-Rates.aspx>.

Time Period

The most recent California Trailer Bill which mandated that staffing retention is evaluated as a performance measure under the SNF QAP was effective July 1, 2015. Therefore, the SNFs will be evaluated for the staffing retention measure beginning for the following time period: July 1, 2015 through June 30, 2016.

Data will be collected from the SNFs at the end of this time period and analyses on the proposed staffing retention measures will be performed once data are received.

Data Elements

Table 3-1 contains the proposed data elements to collect from each SNF in order to evaluate staffing retention.

Table 3-1: Data Elements		
Data Element	Description	Format
Facility ID	The unique ID of the SNF	Numeric
Employee First Name	The employee’s first name	Character
Employee Middle Name	The employee’s middle name	Character
Employee Last Name	The employee’s last name	Character
Employee ID	The unique ID of the employee	Numeric
Employee Start Date	The first date an employee started working at the facility	MM/DD/YYYY
Employee End Date	The last date of employment	MM/DD/YYYY
Employee Last Working Date	The last date an employee was physically onsite and worked at the facility. Please provide Leave Exceptions if applicable*	MM/DD/YYYY
Employee Leave Exceptions*	A flag indicating Exception for Last Working Date (e.g. 1= facility paid time off; 2= Medical Leave/FMLA; 3= Maternity Leave; 4= State Disability Insurance; 5= Other Disability Insurance). Attached copies of documentation for Leave Exception verification must be submitted.	Numeric
Position Title	The employee’s position title (e.g., RN, CNA)	Character
Employee License or Certificate number.	The employee’s unique ID for their nursing registration, license, or certification.	Numeric
Full/Part-Time Indicator	A flag indicating whether the employee was a full or part-time employee (e.g., a flag of 1 = Full-time and a flag of 2 = Part-time)	Numeric

Table 3-1: Data Elements

Data Element	Description	Format
Voluntary/Involuntary Termination	A flag indicating whether the employee left the facility voluntary or involuntary (e.g., a flag of 1 = voluntary termination and a flag of 0 = involuntary termination)	Numeric

A full-time employee is defined as an individual who works over 30 hours per week. A part-time employee is defined as an individual who works 30 hours or less per week. A facility should include a new row for an individual each time an individual’s status changed, such as a change in position title or change in full-time or part-time status. The unique employee ID can be used to track the same employee throughout the performance period to ensure the same employee is counted only once even if there is a change in position title or full-time/part-time status.

Some of the data elements requested will help address possible inclusion/exclusion criteria for the measure specifications (e.g., leave exceptions, involuntary termination).

Data Collection Method

Per discussions with CDPH, it is HSAG’s understanding that a provider bulletin will be released notifying the SNFs of the staffing retention measurement requirement and the required format for collecting data, as well as mandatory data elements. Staffing data will be collected from each nursing home, most likely via an Excel spreadsheet, and these data will be supplied to HSAG for analysis.³⁻¹ HSAG recommends using Excel as the data collection tool, as well as developing a data dictionary with an explanation of each variable, required format, and/or valid values.

Staffing Retention Measure Calculations

HSAG will utilize the formulas provided below to calculate the proposed staffing retention measures.

Retained Staff Measure

The formula for the Retained Staff measure is as follows:

$$\text{Retained Staff} = \frac{\text{Number of Employees Still Employed With Facility at End of Time Period}}{\text{Number of Employees Employed With Facility at Beginning of Time Period}}$$

The Retained Staff measure follows a cohort of individuals from beginning to end. Those staff members hired after the beginning of the time period will not be included in this measure. HSAG recommends applying a restriction to not count an employee as still employed if they have not worked within a certain amount of time prior to the end of the performance period (e.g., 30 days).

³⁻¹ The data collection method has not been finalized by DHCS; therefore, a different format than Excel may be used to collect the data.

Average Tenure of Current Staff Measure

The formula for the Average Tenure of Current Staff measure is as follows:

$$\text{Average Tenure of Current Staff} = \frac{\text{Sum of All Months Worked by Current Staff}}{\text{Number of Current Staff}}$$

The Average Tenure of Current Staff measure evaluates how long each SNF's staff members have worked at the facility. Current staff is defined as any staff member with an employee start date and no employee end date or employee last working date present in the data.

Recommendations

Evaluating staff retention is important because the longer nursing home staff stay at a particular facility the more familiar they will be with their patients and the nursing home's policies and procedures. This in turn could improve nursing home health care quality.⁴⁻¹ Based on measures that HSAG has researched, HSAG recommends the use of the Retained Staff and Average Tenure of Current Staff measures in assessing staffing retention. The advantage of using these measures is that retention rate and average tenure of staff are measures that are used widely in nursing homes along with other organizations.⁴⁻² In addition, the data collection burden on the nursing homes should be low as they should already be capturing most, if not all, of this information already for their staff. HSAG recommends evaluating these measures during the current performance year (i.e., July 1, 2015 through June 30, 2016) and analyzing the results that are produced. HSAG has included additional recommendations for the development of these measures below.

Data Collection Tool Testing

HSAG recommends that CDPH test the data collection tool to ensure the SNFs are submitting valid and useable data. It is important to ensure the SNFs do not have any issues using the tool and are able to provide the requested data in a standard format that can be easily analyzed.

Auditing Results

HSAG recommends CDPH consider auditing the data received from the SNFs to ensure the data are valid and reliable. CDPH can monitor the extreme outliers from the staffing retention performance measures calculations for each SNF. HSAG suggests auditing those SNFs with an extremely high retention rate (e.g., 95th percentile) and an extremely low retention rate (e.g., 5th percentile) to validate the rates are accurate and there are no issues with the self-reported data.

Office of Statewide Health Planning and Development (OSHPD) Data

California State law requires that all nursing home facilities submit an annual report of financial and operational data to OSHPD. In turn, OSHPD publishes a file containing financial and utilization data submitted by California long-term care facilities. HSAG recommends that CDPH pursue the use of OSHPD data for the staff retention measure. The advantages of using these data are that the data already exist and no additional burden would be placed on nursing homes to report

⁴⁻¹ Jones, C., Gates, M., (September 30, 2007). "The Costs and Benefits of Nurse Turnover: A Business Case for Nurse Retention" *OJIN: The Online Journal of Issues in Nursing*. Vol. 12 No. 3, Manuscript 4.

⁴⁻² Larson, Sheryl A, LaLiberte, Traci L, Salmi, Patricia. *Assessing and Evaluating Workforce Challenges*. Chapter 13: 287-312. Available at: https://ici.umn.edu/products/docs/Staff_Recruitment_book/Ch_13.pdf. Accessed on: August 10, 2015.

this information. HSAG provided CDPH with preliminary findings on the use of OSHPD data in the White Paper on Measuring Staffing Retention/Turnover in SNFs.⁴⁻³

If CDPH and DHCS decide to use OSHPD data for the staff retention measure, updates to the proposed measures and methodology may be made based on the OSHPD data available for measuring staff retention.

⁴⁻³ California Department of Public Health. *White Paper on Measuring Staffing Retention/Turnover in Skilled Nursing Facilities for the California Department of Public Health*. September 2012. Available at: <https://www.cdph.ca.gov/programs/LnC/Documents/CAHPS-2012StaffingRetentionandTurnover.pdf>. Accessed on: August 25, 2015.

Cautions and Limitations

The proposed staffing retention measures and methodology presented in this report are subject to certain caveats/limitations in program implementation and analysis. These caveats and limitations should be considered when evaluating the recommendations in this report.

Data Issues

HSAG has not received any data from the facilities to-date; therefore, HSAG cannot be certain if the data received from the nursing homes will be useable. In addition, the nursing homes must provide the required data elements listed in the Methodology section. If the required data elements are not received or are inconsistent, HSAG will not be able to perform the analysis. It is possible that the methodology may undergo revisions in response to unforeseeable idiosyncrasies in the data and the program implementation.

Self-Reported Data Bias

HSAG anticipates receiving self-reported staffing retention data from the SNFs. Using self-reported data introduces the potential for validity problems in the data. If data are not going to be audited, caution should be taken when self-reported data are used to evaluate the SNFs, as there would be no way to ensure the data provided are correct and reliable.

Data Collection Method Issues

Issues may arise as CDPH and DHCS are working on finalizing the method for how the data will be aggregated for all SNFs and the format the data will be provided to HSAG (e.g., Excel, text files, one aggregate file, or a file for each SNF). HSAG would like to review the file format for data collection and receive a sample data file, as soon as it is available. This will allow HSAG to provide feedback or recommended changes early on in the process.