



The Long Term Care Nurse Staffing Study (LTCNSS) assesses nurse staffing and related issues in the long term care setting. In 2016, approximately 26% of licensed vocational nurses (LVNs) and 3% of registered nurses (RNs) in Texas worked in the nursing home/extended care setting. Long term care facilities may also employ certified nurse aides (CNAs), certified medication aides (CMAs), and advanced practice registered nurses (APRNs). During the spring of 2017, the TCNWS administered the LTCNSS to 1,213 Texas nursing facilities. A total of 439 facilities participated, for a final response rate of 36.2%.

Survey Development

As with all TCNWS employer surveys, the LTCNSS taskforce (see Appendix A), comprised of employers and educators of nurses in long term care, assisted in development of survey content and marketing of the survey to health professionals. The 2017 iteration of the LTCNSS survey instrument was collaboratively reviewed by the LTCNSS taskforce and TCNWS staff. Content was revised based on feedback of the taskforce and 2016 study findings.

The 2017 LTCNSS survey instrument was similar to that of previous years, though some changes were adopted:

- Two questions on recruitment and retention strategies were combined into one.

- The question on the importance of a BSN was removed.
- The question about newly licensed RNs by degree was expanded to also include the number of all RNs by degree
- Questions asking director of nurses about orientation were added.
- A question asking to categorize the number of nurses employed during a week by age was removed.
- The transition to practice section was expanded to include the types of nurses eligible for programs.

The 2017 LTCNSS survey instrument and its operational definitions can be found in Appendices B and C, respectively.

Survey Distribution and Marketing

Between April and August of 2017, a multi-faceted strategy was used to maximize survey response, including a mail-out of hard-copy survey materials, electronic announcements, and phone calls.

Prior to 2017, the LTCNSS was conducted in even years. Surveying hospitals in 2016 and 2017 may have impacted the response rate. In the future, the survey will be conducted in odd years.

Initial distribution

A total of 1,213 survey packets were mailed the first week of April 2017 with an initial deadline of May 12, 2017. These mail-outs were addressed to current Directors of Nursing. In addition, an electronic version of the survey packet was emailed to the contact on file with Texas Health and Human Services (HHS).

Survey extensions and follow-up

In an attempt to boost response rates, the survey was extended through July 21, 2017. The extension was announced via email and fax. Additionally, phone calls to all non-responding facilities were made in June and July to further market the survey and encourage participation.

Other announcements

Various entities assisted in marketing the survey. These included:

- Texas HHS quality monitoring program email alert to long term care facilities
- Leading Age Texas sent out notices in March
- Texas Association of Residential Care Communities published a notice in March
- Texas Nursing Facility Quality Improvement Coalition posted information about the survey on their social media page

- Texas Nurses Association added notices to their newsletters.

- Texas Board of Nursing included alerts in their newsletters.

Survey Population

A list of all long term care facilities that provide licensed, skilled nursing care as of April 2017 was obtained from Texas HHS, the regulatory body licensing all home and community support services agencies in the state. A total of 1,213 facilities was obtained from this list for inclusion in this study. 439 of the total 1,213 facilities participated for a response rate of 36.2%.

Responding and non-responding facilities were compared to one another by facility size, county designation, and region. Analyses found that the 439 respondents were not different than the 774 non-responding facilities with respect to facility size and region. However, responding facilities were different than non-responding facilities in respect to county designation.

Facility size

The number of licensed beds reported by DADS was recoded into size categories ($\leq 49 = 1$, $50-99 = 2$, $100-199 = 3$, $\geq 200 = 4$). Analysis found there was not a statistically significant difference between responding and non-responding facilities by facility size ($\chi^2 (3, N=1,213) = 4.765, p=.190$).

County designation

County designation refers to the breakdown of all Texas' 254 counties into four exclusive county types based on metropolitan and border statuses: metropolitan border, metropolitan non-border, non-metropolitan border, and non-metropolitan non-border. Analysis determined that survey respondents were significantly different from survey non-respondents with respect to county designation ($\chi^2 (3, N=1,213) = 9.093, p=.028$).

Region

Texas has eight administrative health service regions. Statistical analysis found there was not a statistically significant difference between responding and non-responding facilities by region ($\chi^2 (7, N=1,213) = 6.634, p=.468$).

Data Analysis

All data were analyzed using SPSS (version 24). 2017 LTCNSS data were reviewed and notable inconsistencies were excluded from analyses.

Facility Characteristics

Frequency counts were conducted on each variable reported in the Facility Characteristics report. These frequencies were analyzed by region, geographic designation, and bed size category. Also included in this report was information on nurses on boards.

Vacancy and Turnover

The 2017 LTCNSS asked respondents to provide the total number of occupied and vacant RN positions in their facility on the date of 01/27/17. These numbers were used to calculate vacancy and turnover rates as described in the 2017 LTCNSS Vacancy and Turnover report.

This report describes one method for calculating vacancy rates, the position vacancy rate. The position vacancy rate describes the proportion of all FTE positions that are vacant across a group of responding facilities. Rates were calculated by staff type.

Facility vacancy rate =

$$\frac{\text{(Sum vacant FTEs being recruited, on hold or frozen in a facility)}}{\text{(Sum Occupied + vacant FTE positions in a facility)}} \times 100$$

Statewide position vacancy rate =

$$\frac{\text{(Sum vacant FTE positions being recruited, on hold or frozen across the state)}}{\text{(Sum occupied + vacant FTE positions across the state)}} \times 100$$

In order to calculate turnover rates, respondents provided their number of occupied full-time and part-time employees at two points in the year (1/1/2017 and 12/31/2017) and these numbers were averaged to determine an average number of employees. Turnover rates were calculated for each facility and by each staff type by dividing the number of employee separations reported by the sum of average full-time and part-time staff. The median facility turnover rate was reported for the state.

Facility turnover rate =

$$\frac{\text{Total Number of Separations}}{\text{(Average \# Full-time + Average \# Part-time)}} \times 100$$



Staffing

Data in the Staffing report pertain to number of nurses and nurse aides employed in the state, average employees and total separations, additional staff needed, staff characteristics, and contract, agency, and traveling staff. Inductive coding was used to analyze open-ended free response questions.

The LTCNSS asks facilities about their needs for interim staffing and the methods they use to fill these needs. Facilities reported the hours and cost of interim staffing for calendar year 2017. Only facilities that reported both cost and hours for each method were included in this analysis. Outliers were not included in the analysis. For types of interim staffing methods used, frequency counts were conducted to show the number of facilities that reported using each type of interim staffing method. Facilities were asked to provide hours and costs of each interim staffing method. Total hours and costs were calculated by taking the sum of hours and costs by each method. Cost per hour was calculated by taking the total cost divided by the total hours for each method. Average hourly cost was determined by dividing the total hours of each staffing type by the total cost of this staffing type. Please note that the analysis on cost of interim staffing is to demonstrate the cost differential between staffing methods, and is not intended for use in estimating nurse wages.

Recruitment and Retention

Respondents were asked several questions related to recruitment and retention of staff. First, facilities were to rate their experience recruiting staff and to explain their experience with an open-ended response. Second, they were asked to indicate how long, in weeks, it takes the facility to fill vacant positions. Third, facilities were to rank four relevant attributes as to their importance in hiring RNs and to provide any other key attributes that are desirable when hiring RNs. Finally, respondents were asked to indicate which strategies they utilize for recruitment and retention by full-time and part-time nurses, which strategies have the greatest impact, and ultimately, what the consequences of inadequate staffing have on the facility. Inductive coding was used to analyze open-ended free response questions.

Transition to Practice

Responding to a recent initiative to increase orientation programs for newly licensed nurse graduates the 2017 LTCNSS asked facilities if they have a transition to practice program. The reports also describes features of transition to practice programs, including the type and length of the program, whether the program used an employment model, the type and number of participants in the program, how the program was coordinated, and the benefits of the program.

Directors of Nursing

Respondents were asked to provide a variety of data pertaining to Directors of Nursing (DON) in long term care facilities, including salary range, longevity in long term care and tenure in current position, educational qualifications, orientation, and reasons for DON turnover.