

The Texas Governmental Public Health Nurse Staffing Survey (TGPHNSS) assesses nurse staffing and related issues in Texas governmental public health agencies. In the spring of 2017, the Texas Center for Nursing Workforce Studies (TCNWS) administered the TGPHNSS to 82 public health agencies in Texas. This included local health departments, public health service regions, and Department of State Health Services (DSHS) and Health and Human Services (HHS) central offices in Austin. DSHS and HHS central office programs will be referred to as state offices. A total of 48 agencies participated for a final response rate of 58.5%.

This report includes information on the Design and Methods of the 2017 TGPHNSS.

Survey Development

The TGPHNSS was first administered in 2013. As with all TCNWS employer surveys, a taskforce, consisting of employees of local health departments, Texas Department of State Health Services (DSHS) health service regions, and the Texas Nurses Association (TNA), was established. These governmental public health nursing experts were asked to assist in the development and implementation of the survey. The members of the TGPHNSS taskforce helped to revise and edit the survey instrument to ensure questions were applicable and understandable to all governmental public health agencies. The taskforce also helped to test and market the survey, and reviewed the final report.

The 2017 TGPHNSS was similar to the 2015 version, but some changes were implemented. Updates included expanding turnover to include newly licensed RNs, a question addressing nurse retention and an opportunity for respondents to provide a description of the transition to practice program if offered. A total of 37 questions were included in the final survey instrument.

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

Data Collection

Survey data was collected via Qualtrics, an online survey software, beginning on April 3, 2017. A link to the web-based survey along with the survey instrument, cover letter, operational definitions, and instructions was sent out to all Texas local health departments and health service regions by email. Survey materials were also distributed by mail the first week of April 2017. Mailed materials included the survey instrument, cover letter, operational definitions, and instructions. Agencies were strongly encouraged to complete the survey online; however, faxed, mailed, and emailed submissions were also accepted.

The survey deadline for Texas governmental public health agencies was May 12, 2017; however, the deadline was extended to July 21, 2017 and the survey was finally deactivated on July 28, 2017.

As part of a strategy to increase the survey response rate, a process of multiple announcements and reminders was implemented. Email announcements from TCNWS and taskforce members were made throughout the survey period. Follow-up phone calls were also made by the TCNWS staff throughout the survey period to encourage participation from non-respondents.

Various entities assisted in the marketing of the survey by sending email announcements. These included:

- Texas Association of City and County health Officials (TACCHO),
- Texas Public Health Association (TPHA), and
- Texas Nurses Association (TNA).

All data analyses were conducted in SPSS version 24. Variables were analyzed by agency type (i.e. local health department, health service region or DSHS central office division), county designation (i.e. metropolitan vs. non-metropolitan, border vs. non-border), and health service region. 2017 data were reviewed and notable inconsistencies were removed from the analysis.

Agency Characteristics

Frequency counts were run for each variable reported in the Agency Characteristics report. Response rates were analyzed by region, county designation, and agency type. Attention was also given to administrative responsibility for nursing services, registered nurses on agency boards, and program areas.

Vacancy and Turnover

The 2017 TGPHNSS asked respondents to provide the total number of occupied and vacant RN positions in their facility on the date of 1/27/2017. These numbers were used to calculate vacancy and turnover rates as described in the 2017 TGPHNSS Vacancy and Turnover report. The two methods for calculating vacancy rates describe two different considerations: the position vacancy rate describes the proportion of all full-time equivalent (FTE) positions that are vacant across all responding agencies, whereas the median agency vacancy rate provides the midpoint of vacancy rates among all agencies, regardless of agency or staff size.

Agency vacancy rate =

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

Regional position vacancy rate =

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

Statewide position vacancy rate =

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

In order to calculate turnover rates, respondents provided their number of occupied full-time and part-time staff positions at two points in the year (1/1/2016 and 12/31/2016), and these numbers were averaged to determine an average number of employees. Turnover rates were calculated for each facility and by each nurse

type by dividing the number of reported employee separations during this period by the sum of average full-time and part-time staff. The median facility turnover rate was reported for the state and for each region.

Agency turnover rate =

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

Staffing

The Staffing report includes data on the number of nurses employed in public health agencies, additional staff needed, staff characteristics, methods of interim staffing, consequences of inadequate staffing, and contract, agency, and traveling staff. Also included are additional number of FTE positions budgeted for next year, change in budgeted direct care FTEs in the past two years, reasons why agencies increased or decreased budgeted positions by nursing type, and whether or not the agency replaced budgeted RN positions with budgeted LVN positions. Inductive coding was used to analyze open-ended free response questions.

Recruitment and Retention/Transition to Practice

The Recruitment and Retention report contains data on hiring practices, recruitment and retention, and transition to practice programs. To analyze recruitment and retention, respondents were asked four questions directly related to employee recruitment for nursing positions. First, agencies were asked to indicate how long it took their organization to fill nursing vacancies by nurse type. Second, they were asked whether they recruited RNs in Texas, in other states, or internationally. Third, agencies responding that they recruited outside of Texas were then asked why they did so. Fourth, respondents were asked about benefits they offered to employees. Frequency counts and analysis by region were conducted for this report.

Data on hiring practices and transition to practice pertains to the time it takes to fill a vacant position by nurse type. Frequency counts were used to describe data on both hiring practices and the availability of a transition to practice program.