



The Texas Governmental Public Health Nurse Staffing Survey (TGPHNSS) assesses nurse staffing and related issues in Texas governmental public health agencies. During the summer of 2015, the Texas Center for Nursing Workforce Studies (TCNWS) administered the TGPHNSS to 83 public health agencies in Texas. This included local health departments, health service regions, and Department of State Health Services (DSHS) central offices in Austin. A total of 58 agencies participated for a final response rate of 69.9%. In 2015, there were a total of 273 occupied licensed vocational nurse (LVN) FTE positions, 479 registered nurse (RN) FTE positions, and 52.4 advanced practice registered nurse (APRN) FTE positions in responding Texas governmental public health agencies.

This report presents the findings pertaining to staffing practices in Texas governmental public health agencies. It is important to analyze staffing practices in public health agencies because studies have shown that inadequate staffing has adverse effects such as increased job stress and inability to handle public health emergencies.^{1,2} This report discusses the nurse staffing mix in public health agencies. Also included are data on job functions as a part of main nursing duties, public health nurse certification, nurse informaticists, methods of interim staffing, temporary nurses, and consequences of inadequate staffing.

¹Dingley, J & Yoder, L. (2013) The Public Health Nursing Work Environment: Review of the Literature. *Journal of Public Health Management Practice*, 19(4), 308-321.

²Lee, I. & Wang, H. (2002) Perceived Occupational Stress and Related Factors in Public Health Nurses. *Journal of Nursing Research*, 10(4), 253-259.

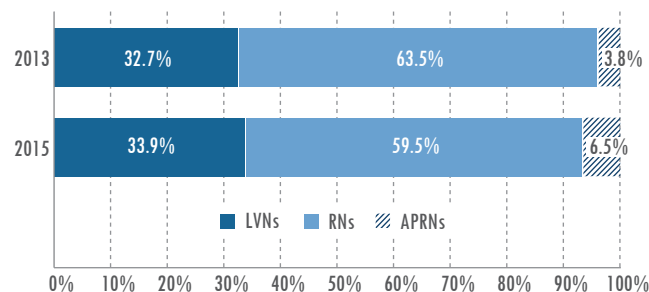
Staff Mix

Overall, nurses occupied 9.9% of all staffed full-time equivalent (FTE) positions within the responding Texas governmental public health agencies. Within the responding agencies, 9.8% of all FTE governmental public health positions, both unoccupied and occupied, required a RN, APRN, or LVN license.

Figure 1 displays the proportion of nurses employed in Texas public health agencies.

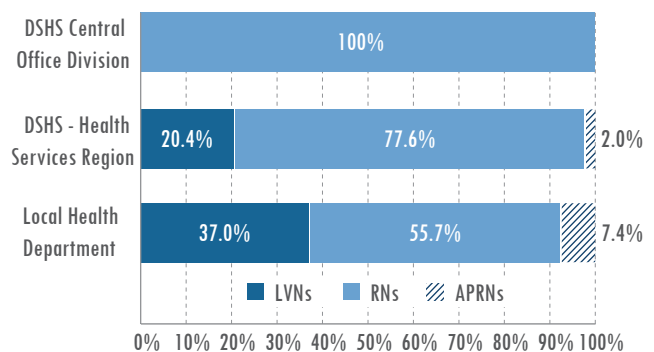
- Similar to 2013, RNs made up the majority of the nursing staff mix in the 2015 TGPHNSS (59.5%), but the proportion decreased slightly from 2013 (63.5%).
- The proportion of LVNs increased slightly from 32.7% in 2013 to 33.9% in 2015.

Figure 1. 2013 & 2015 TGPHNSS Nursing Staff Mix



- APRNs comprised 6.5% of all nursing staff positions, which was an increase from the 2013 TGPHNSS (3.8%).

Figure 2. 2015 Nursing Staff Mix by Agency Type

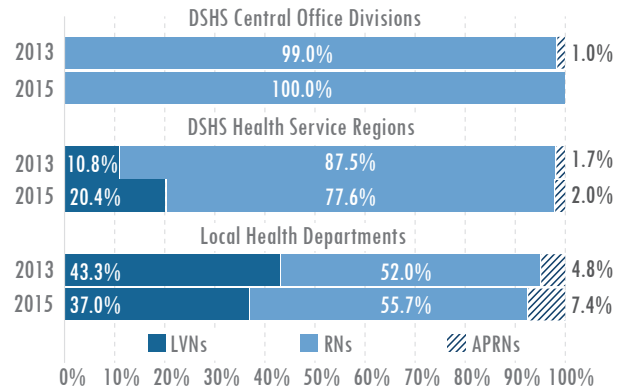


The nursing staff mix was also analyzed by agency type. As shown in Figure 2 and 3 (page2):

- RNs made up the vast majority of nurse positions in local health departments (55.7%) and DSHS health service regions (77.6%). DSHS central office divisions only employed RNs and did not report any other type of nurse employed.

- Local health departments were more diverse, with 52.0% positions filled with RNs, 37.0% filled with LVNs, and 7.4% filled with APRNs.
- DSHS health service regions reported a decrease in RNs (from 87.5% to 77.6%) and an increase in LVNs (from 10.8% to 20.4%), compared to the 2013 TGPHNSS.

Figure 3. 2013 & 2015 Nursing Staff Mix by Agency Type



Staff Characteristics

Job Functions

Agencies provided the number of nurse FTEs that were involved in various job functions as part of their main job duties within the agency. Some job functions that were in 2013 were not included in the 2015 TGPHNSS. Job functions among public health nurses were similar across nurse types, as shown in Figure 4.

- 39.1% of LVNs, 35.1% of RNs, and 44.5% of APRNs who were employed in Texas governmental public health agencies worked in clinic-based care, which were all increases from the 2013 TGPHNSS.
- Slightly more LVNs (24%) worked in outreach activities than RNs (21.2%).
- There were more APRNs (9.3%) and RNs (7.1%) who worked in workforce development/training than LVNs (2.6%).

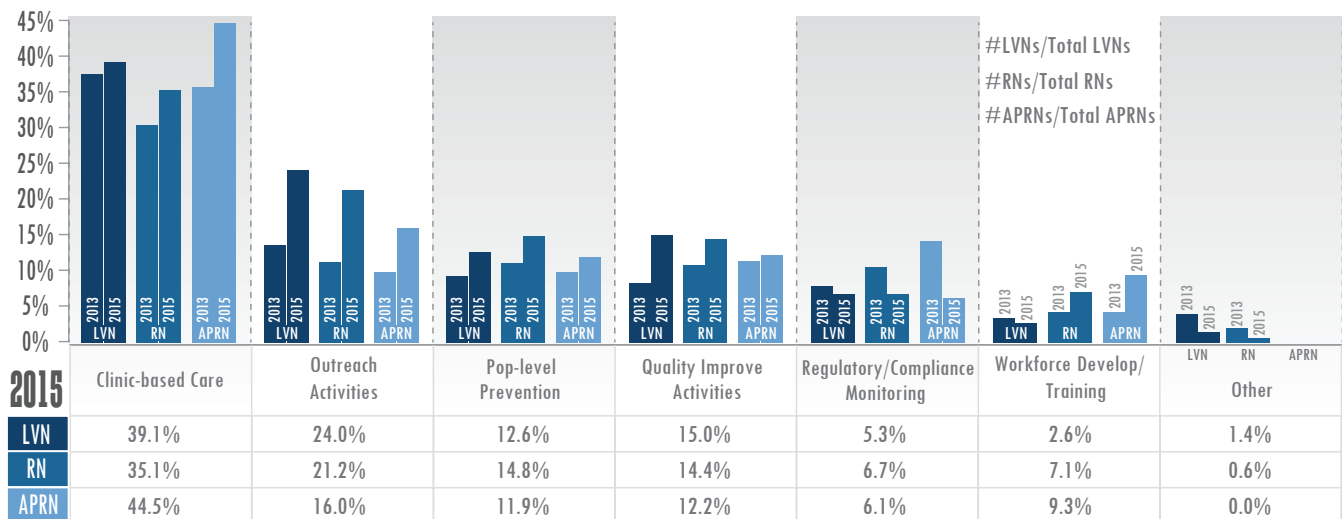
- Regulatory/compliance monitoring decreased across all nurse types from 2013.

Public Health Nurse Certification and Nurse Informaticists

The 2015 TGPHNSS introduced a new question asking agencies to report the number of FTE positions that were occupied by a nurse with a public health nurse (PHN) certification. Out of the 58 respondents, 8 reported having a total of 66 RNs with a PHN certification. Four agencies reported having a total of 6 APRNs with a PHN certification.

Another measure added to the 2015 TGPHNSS was the number of nurse informaticists employed in governmental public health agencies. A total of 4 nurse informaticists were reported in the state by 4 agencies.

Figure 4. 2013 & 2015 Job Functions by Nurse Type (FTEs)

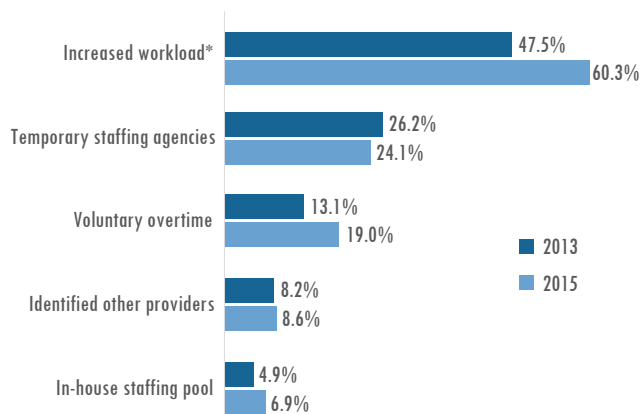


Methods of Interim Staffing

Respondents were asked to indicate which methods of interim staffing were used in their agency. All responding agencies in the 2015 TGPHNSS reported using at least one method of interim staffing. Figure 5 displays the percentage of facilities using interim staffing methods.

- Increased workload (not work hours) was the most frequently used interim staffing method, with 60.3% of agencies reporting the use of this strategy, increased from 2013 (47.5%).
- Temporary staffing agencies were used by 24.1% of governmental public health agencies.
- 2 agencies reported using other interim staffing methods with 1 agency increasing work hours along with the increased workload, and the other using compensation time.

Figure 5. Interim Staffing Methods



*Increased workload but not increased work hours

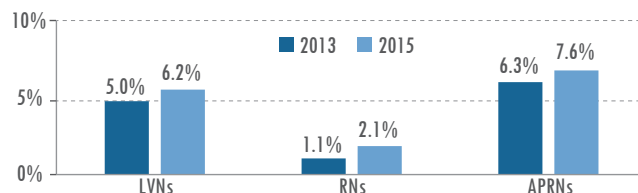
Temporary Nurses

Agencies were asked to provide the number of temporary nurse FTEs used on April 30, 2015 by nurse type. 13 agencies reported a total of 31 temporary nurse FTEs. Figure 6 displays the percentage of temporary nurses employed by public health agencies.

- Temporary LVN staff accounted for 6.2% of the total number of LVN FTEs employed, which was an increase from 2013 (5.0%).
- Temporary RN staff made up 2.1% of the total RN FTEs employed, and temporary APRN FTEs filled

7.6% of all APRN positions. This was an increase from 2013 for both RNs (1.1%) and APRNs (6.3%).

Figure 6. Percentage of Temporary Nurse FTEs Employed, 2013 & 2015



Consequences of Inadequate Staffing

The 2015 TGPHNSS asked agencies to select, consequences their agency experienced in the past year due to an inadequate supply of nursing personnel. Table 1 (page 4) displays the number and percentage of public health agencies who experienced consequences of inadequate nursing personnel.

- Over half of public health agencies (51.7%) reported increased workload as a consequence of inadequate staffing.
- 41.4% of agencies did not experience any consequences because they had an adequate supply of nursing personnel.
- Other notable consequences were low nursing staff morale (27.6%) and inability to expand services (24.1%).

Table 2 (page 4) displays the number and percentage of public health agencies who experienced consequences of inadequate nursing personnel by agency type.

- 45.7% of local health departments, 100% of health service regions, and 40% of DSHS central offices reported increased workload as a consequence of inadequate staffing.
- 57.1% of health service regions listed low staffing morale as a consequence of inadequate staffing.
- More than half of DSHS central offices and 45.7% of local health departments reported having an adequate supply of nursing personnel. None of the health service regions reported having an adequate supply of nursing personnel.

Table 1. Number and Percentage of Public Health Agencies Experiencing Consequences of Inadequate Staffing

	# of Agencies	% of Agencies
Increased workload	30	51.7%
Low staffing morale	16	27.6%
Inability to expand services	14	24.1%
Increased staffing turnover	11	19.0%
Difficulty completing required documentation on time	11	19.0%
Increase in voluntary overtime	9	15.5%
Increased use of temporary/agency nurses	7	12.1%
Increased absenteeism	7	12.1%
Wage increases	4	6.9%
Increased patient/resident and/or family complaints	4	6.9%
Increased number of incident reports	2	3.4%
Other	4	6.9%
None, agency had an adequate supply of nursing personnel	24	41.4%

Table 2. Number and Percentage of Public Health Agencies Experiencing Consequences of Inadequate Staffing by Agency Type

	Local Health Departments	Health Service Region	DSHS Central Office
Increased workload	21 (45.7%)	7 (100%)	2 (40.0%)
Low staffing morale	12 (26.1%)	4 (57.1%)	0 (0%)
Inability to expand services	12 (26.1%)	2 (28.6%)	0 (0%)
Increased staffing turnover	7 (15.2%)	3 (42.9%)	1 (20.0%)
Difficulty completing required documentation on time	8 (17.4%)	3 (42.9%)	0 (0%)
Increase in voluntary overtime	6 (13.0%)	1 (14.3%)	2 (40%)
Increased use of temporary/agency nurses	6 (13.0%)	1 (14.3%)	0 (0%)
Increased absenteeism	6 (13.0%)	1 (14.3%)	0 (0%)
Wage increases	3 (6.5%)	1 (14.3%)	0 (0%)
Increased patient/resident and/or family complaints	3 (6.5%)	1 (14.3%)	0 (0%)
Increased number of incident reports	2 (4.3%)	0 (0%)	0 (0%)
Other	4 (8.7%)	0 (0%)	0 (0%)
None, agency had an adequate supply of nursing personnel	21 (45.7%)	0 (0%)	60.0%

Conclusion and Recommendations

Conclusion

Nurses represented 9.9% of all staffed FTEs in public health agencies, and RNs still represent the largest proportion among nurse types (59.5%). However, the proportion of LVNs increased slightly from 32.7% in 2013 to 33.9% in 2015. Responding agencies also reported an increase in the percentage of RNs, LVNs APRNs in most job functions. Clinic-based care was the most frequently reported main job duty for nurses employed in public health agencies, which suggests that public health agencies should increase the capacity to provide nursing students with meaningful clinical experiences in public health.

Few respondents reported having nurses with PHN certification or nurse informaticists. Additionally, the proportion of temporary nurses remains low but increased from 2013. Finally, increased workload was the most frequently reported consequence of inadequate staffing and interim staffing method used. As previously mentioned, increased workload caused additional stress among public health nurses, so it is imperative that

public health agencies address inadequate staffing to meet ongoing public health needs and alleviate stress on public health nurses^{1,3}. It is recommended that Texas governmental public health agencies further evaluate the effects of increased workload and how it affects nursing safety, quality of work and recruitment and retention.

¹Dingley, J & Yoder, L. (2013) The Public Health Nursing Work Environment: Review of the Literature. *Journal of Public Health Management Practice*, 19(4), 308-321.

³Association of State and Territorial Directors of Nursing. (2008) "Report on a Public Health Nurse to Population Ratio."

TCNWS Advisory Committee Recommendations

- Nurse researchers should focus on the following issues for further study:
 - Effect of public health nursing compensation and promotion opportunities on recruitment and retention in governmental public health agencies.

- Effect of increasing workload as an interim staffing method and how this affects governmental public health nursing safety/quality of work and recruitment and retention.
- Relationships among planning, funding, and optimal nurse staffing roles and responsibilities in public health agencies.
- Unique factors that may adversely affect public health nursing recruitment and retention.

