



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 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

In 2017, agencies were asked to report the number of people currently employed by full-time and part-time status as well as the number of positions that required a nursing license. This is a change from previous surveys when agencies were asked to report on FTEs rather than headcounts. For the purposes of this report, the full-time and part-time headcounts were used to calculate FTEs for the different nurse types. Each full-time employee was counted as one FTE and each part-time employee was counted as half of an FTE.

Table 1 shows the number of full-time, part-time, and FTE counts reported by responding agencies.

Table 1. Staff mix by type

	FT	PT	FTE
All Employees	2,950	105	3,002.5
RNs	257	6	260.0
APRNs	20	8	24.0
LVNs	127	4	129.0

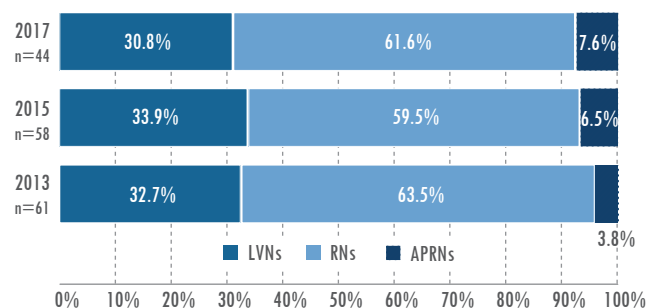
- Overall, nurses represented 13.7% of all full-time employees and 17.1% of all part-time employees among responding governmental public health agencies (n=44).

- 11.7% of all full-time positions and 7.6% of all part-time positions required a nurse license.

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

- Similar to 2013 and 2015, RNs made up the majority of the nursing staff mix in 2017 (61.6%).
- The proportion of LVNs decreased slightly from 33.9% in 2015 to 30.8% in 2017.
- APRNs comprised 7.6% of occupied nursing staff positions, which was an increase from the 2015 and 2013 TGPHNSS with 6.5% and 3.8%, respectively.

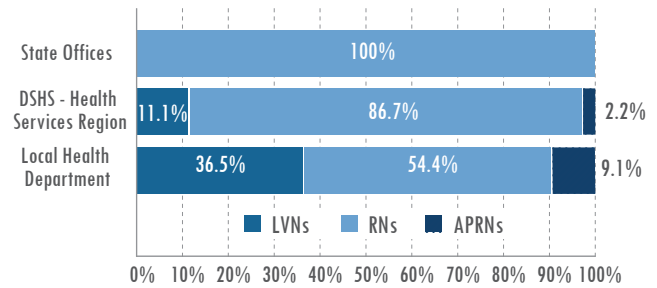
Figure 1. Nursing staff mix, 2013-2017



The nursing staff mix was also analyzed by agency type. As shown in Figure 2:

- RNs made up the vast majority of nurse positions in local health departments (54.4%) and DSHS public health service regions (86.7%).
- State offices only employed RNs and did not report any other type of nurse employed.
- DSHS public health service regions reported an increase in RNs (from 77.6% to 86.7%) and a decrease in LVNs (from 20.4% to 11.1%), compared to the 2015 TGPHNSS.

Figure 2. 2017 Nursing staff mix by agency type



Change in Budgeted Positions

Agencies were asked to report the change, if any, in their number of budgeted direct care FTEs in the past 2 years (Table 2).

- Most agencies reported no change in FTEs among all nurse types over the past 2 years.
- 2 agencies increased the number of budgeted RN FTEs, 2 increased LVN FTEs, and 3 agencies added APRN FTEs.
- 4 agencies decreased the number of budgeted RN and LVN FTEs, while 2 agencies decreased APRN FTEs.

Table 2. Number of agencies reporting a change in the number of budgeted nurses in the past 2 years

	Decreased	No Change	Increased
RNs	4	39	2
APRNs	2	40	3
LVNs	4	26	2

Additional FTEs Expected Next Fiscal Year

Texas governmental public health agencies were asked to report the number of additional FTE positions they expected to budget in the upcoming fiscal year (Table 3).

- 4 agencies reported they expected to budget an additional 16 LVN FTEs over the next fiscal year. This represents a decrease in both the number of agencies (8) and the number of LVN FTEs (21) that were reported in 2015.

Table 3. Number of additional FTEs expected to budget in next fiscal year, 2013-2017

	2013		2015		2017	
	# of Agencies	Total FTEs	# of Agencies	Total FTEs	# of Agencies	Total FTEs
RNs	6	10.0	10	30.3	7	26.0
APRNs	5	6.5	3	4.0	3	3.0
LVNs	10	35.5	8	21.0	4	16.0

- 7 agencies expect to budget an additional 26 RN FTEs next fiscal year. This also represents a decrease in both the number of agencies (10) and the number of RN FTEs (30.25) that were reported in 2015.
- 3 agencies expect to budget an additional 3 APRN FTEs next fiscal year.

Public health agencies that reported increasing or decreasing budgeted positions were then asked to indicate the reasons why the change in budgeted positions occurred.

- Of the 6 agencies that reported an increase in budgeted LVN, RN, and APRN FTEs, opening of new programs or departments was the most frequently reported reason for the increase.
- Reduction in funding was the most frequently reported reason agencies decreased the number of budgeted LVNs (n=3) and APRNs (n=4), and inability to fill existing nurse positions was the most frequently reported reason for the decrease in number of RNs (4 of 8 agencies).



Replacing Budgeted Positions for RNs with Budgeted Positions for LVNs

Agencies were asked whether they had replaced budgeted positions for RNs with budgeted positions for LVNs in the last fiscal year. Agencies that indicated that they had replaced budgeted RN positions with LVN positions were then asked how many were replaced and the reasons for replacing them.

- 5 (10.4%) agencies reported replacing 6 budgeted RN positions with budgeted LVN positions. All 5 agencies were analyzed to identify any similarities, but none were found. All but 1 agency were local health departments.

- 2 out of 5 agencies who reported replacing budgeted RN positions with budgeted LVN positions indicated an inability to recruit RNs due to low salaries. The other 3 agencies did not explain why these RNs positions were replaced with LVN positions.

Newly Licensed RNs

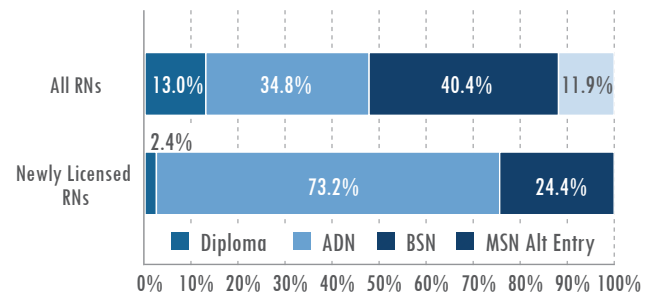
Newly licensed RNs are those who have been licensed for less than 1 year. Respondents were asked to report the number of newly licensed RN applicants that were hired by degree type during the last fiscal year. They were also asked to report the number of all RNs employed by degree type. Table 4 includes the number of newly licensed RNs hired by degree type. Figure 4 displays the breakdown of newly licensed RNs by degree type compared to the breakdown of all RNs employed by degree type.

- 41 newly licensed RNs were hired by 8 responding agencies in 2017. Comparatively, 36 newly licensed RNs were hired by 8 agencies in 2015.
- The largest proportion of newly licensed RNs hired by public health agencies had an associate degree in nursing (ADN) (73.2%). In 2015, only 33.3% of newly licensed RNs hired had an ADN.

Table 4. Number of newly licensed RNs hired by degree type

	# of Agencies	# of Newly Licensed RNs Hired
Diploma	1	1
ADN	5	30
BSN	5	10
MSN- Alternate Entry	0	0

Figure 4. Newly licensed RNs and all RNs employed last fiscal year by degree type



Staff Characteristics

Job Functions

Agencies were asked to identify the functions or activities done as part of their primary role for each of the nurse types. This question was modified from previous years. Rather than asking how many FTEs were involved in the activities, agencies were asked to indicate the types of nurses who do each activity as part of their primary role or function. Table 5 includes the percentage of agencies that identified the types of nurses doing each function or activity as part of their primary role.

- Outreach activities (78.1%), clinic-based care (71.9%), and community engagement (59.4) were the most frequently identified functions or activities done as part of the primary role of LVNs. Fewer than half of responding agencies identified any of the other activities.



Table 5. Primary job functions by nurse type

Primary Job Function	RN	APRN	LVN
Administration/Staff Supervision	75.6%	47.1%	12.5%
Community Engagement	73.3%	17.6%	59.4%
Clinic-based Care	73.3%	82.4%	71.9%
Population-level Prevention	66.7%	29.4%	43.8%
Quality Improvement Activities	73.3%	35.3%	40.6%
Workforce Development/Training	60.0%	23.5%	25.0%
Regulatory/Compliance Monitoring	60.0%	35.3%	21.9%
Outreach Activities	86.7%	29.4%	78.1%
Other	13.3%	5.9%	9.4%
Policy	73.3%	47.1%	18.8%

- Comparatively, RNs appear to do more activities as part of their primary role across responding agencies. More than 60% of responding agencies identified RNs doing any of the listed activities as part of their primary role. Outreach activities were identified as part of the primary role for RNs by 87% of agencies. It is important to note that RNs comprise more than 60% of nurse staff in governmental public health agencies (Figure 1).

- 82.4% of responding agencies identified APRNs being engaged in clinic-based care as part of their primary role. All other activities were selected by fewer than half of responding agencies as being part of APRNs' primary role.

Public Health Nurse Certification

In 2017, agencies were asked to report the number of nurses currently employed that have a public health nurse (PHN) certification. This question was modified from previous years when agencies were asked how many positions were occupied by a nurse with a PHN certification.

- 4 agencies reported a total of 4 RNs with a PHN certification.
- 1 agency reported 1 APRN with a PHN certification.

Nurse Informaticists

Respondents were also asked to report the number of nurse informaticists employed by their agency as well as the number of vacant nurse informaticist positions.

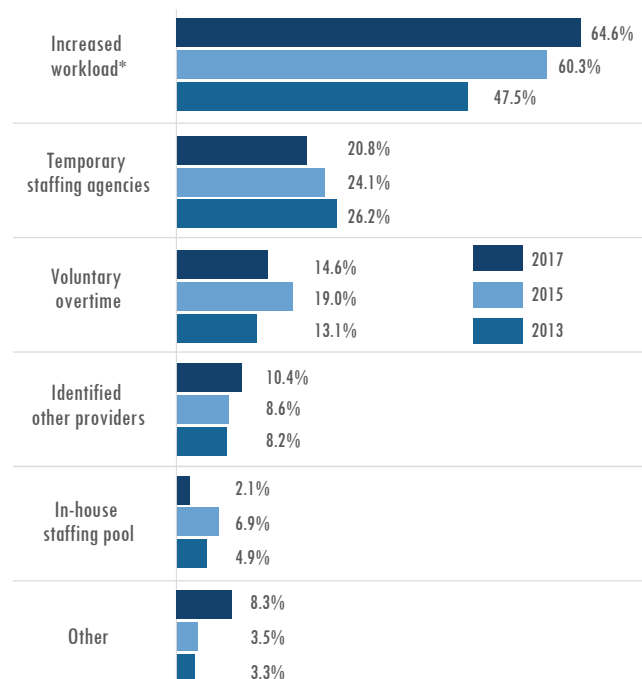
- 6 nurse informaticists were employed by 3 agencies.
- No vacant nurse informaticist positions were reported.

Methods of Interim Staffing

Respondents were asked to indicate which methods of interim staffing were used in their agency. All agencies in the 2017 TGPHNSS responded to the question. 13 agencies (27.1%) reported not using any of these methods 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 64.6% of agencies reporting the use of this strategy, an increase from 2015 (60.3%).
- Temporary staffing agencies were used by 20.8% of governmental public health agencies.
- 4 agencies reported using 4 other interim staffing methods. The other methods reported included increasing work hours along with the increased workload, hiring a seasonal temp, hiring part-time instead of full-time and doing without the position and not doing the work were methods reported.

Figure 5. Interim staffing methods, 2013-2017



*Increased workload but not increased work hours

Temporary Nurses

Agencies were asked to provide the number of temporary nurse FTEs used on January 27, 2017 by nurse type. 8 agencies reported a total of 24 temporary nurse FTEs. Fewer agencies reported fewer temporary nurse FTEs than in 2015.

- 34 temporary RN FTEs were employed on the reporting date.
- 6 temporary APRN FTEs were employed on the reporting date.
- 9 temporary LVN FTEs were employed on the reporting date.

Consequences of Inadequate Staffing

Agencies were asked to select consequences their agency experienced in the past year due to an inadequate supply of nursing personnel. Table 6 displays the number and percentage of public health agencies who experienced consequences related to inadequate nursing personnel.

- Over half of public health agencies (58.3%) reported increased workload as a consequence of inadequate staffing, compared to 51.7% in 2015.

Table 6. Number and percentage of public health agencies experiencing consequences of inadequate staffing

	# of Agencies	% of Agencies
Increased workloads	28	58.3%
Low nursing staff morale	21	43.8%
Inability to expand services	21	43.8%
Increased nursing staff turnover	12	25.0%
Difficulty completing required documentation on time	12	25.0%
Increased absenteeism	10	20.8%
Increased use of temporary/agency nurses	8	16.7%
Increase in voluntary overtime	7	14.6%
Increased patient/family complaints	5	10.4%
Other	4	8.3%
Wage increases	3	6.3%
Increased number of incident reports	0	0.0%
None, agency had an adequate supply of nursing personnel.	18	37.5%

- 37.5% of agencies reported not experiencing any consequences because they had an adequate supply of nursing personnel. This is a decrease from 41.4% in 2015.
- Low nursing staff morale and inability to expand services were each 43.8%, an increase from 2015 at 27.6% and 24.1% of agencies respectively.

Table 7 displays the number and percentage of public health agencies who experienced consequences related to inadequate nursing personnel by agency type.

Table 7. Number and percentage of public health agencies experiencing consequences of inadequate staffing by agency type

	Local Health Departments	Public Health Service Regions	State Offices
Increased workloads	20 (51.3%)	6 (100%)	2 (66.7%)
Low nursing staff morale	14 (35.9%)	5 (83.3%)	2 (66.7%)
Inability to expand services	17 (43.6%)	4 (66.7%)	0 (0.0%)
Increased nursing staff turnover	5 (12.8%)	5 (83.3%)	2 (66.7%)
Difficulty completing required documentation on time	9 (23.1%)	2 (33.3%)	1 (33.3%)
Increased absenteeism	6 (15.4%)	4 (66.7%)	0 (0.0%)
Increased use of temporary/agency nurses	7 (17.9%)	1 (16.7%)	0 (0.0%)
Increase in voluntary overtime	5 (12.8%)	1 (16.7%)	1 (33.3%)
Increased patient/family complaints	4 (10.3%)	1 (16.7%)	0 (0.0%)
Other	3 (7.7%)	0 (0.0%)	1 (33.3%)
Wage increases	2 (5.1%)	0 (0.0%)	1 (33.3%)
Increased number of incident reports	0 (0.0%)	0 (0.0%)	0 (0.0%)
None, agency had an adequate supply of nursing personnel.	18 (46.2%)	0 (0.0%)	0 (0.0%)

- 51.3% of local health departments, 100% of public health service regions, and 66.7% of state offices reported increased workloads as a consequence of inadequate staffing.
- 83.3% of public health service regions listed low staffing morale and increased nursing staff turnover as a consequence of inadequate staffing.
- 46.2% of local health departments reported having an adequate supply of nursing personnel. None of the public health service regions or state offices reported having an adequate supply of nursing personnel.

Consequences of Vacancies

The 2017 TGPHNSS introduced an open-ended question asking agencies to provide a description of the issues the agency faces that are the result of vacant nursing positions. 42 agencies responded to the question.

- Increased workload for existing nurses was the most frequently reported issue agencies experienced from vacant nursing positions (33.3%, n=14).
- Inability to provide normal services (23.8%, n=10) was the second most frequently reported reason followed by longer wait times for patients (16.7%, n=7) and burn out/low morale (9.5%, n=4).
- Increased travel time/costs and retention issues were also reported.

Conclusion and Recommendations

Conclusion

Nurses represented 13.7% of all staffed positions in public health agencies, and RNs still represent the largest proportion among nurse types (61.6%). The proportion of RNs increased slightly from 59.5% in 2015 to 61.6%, while LVNs decreased from 33.9% in 2015 to 30.8% in 2017. Outreach activities and clinic-based care were the most frequently reported primary roles or functions for nurses employed in public health agencies. Few respondents reported having nurses with PHN certification or nurse informaticists. Finally, increased workload was again the most frequently reported consequence of inadequate staffing and interim staffing method used.