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 2019, the Texas Center for Nursing Workforce Studies (TCNWS) administered the TGPHNSS to 80 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 51 agencies participated for a final response rate of 63.8%.

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 nurse informaticists, methods of interim staffing, temporary nurses, and consequences of inadequate staffing.

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

[2]Lee, 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 2019, 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. 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	4,246	141	4,316.5
RNs	348	16	356.0
APRNs	26	5	28.5
LVNs	144	11	149.5

- Overall, nurses represented 12.2% of all full-time employees and 22.7% of all part-time employees among responding governmental public health agencies (n=51).
- 12.6% of all full-time positions and 16.3% of all part-time positions required a nurse license.

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

**Figure 1. Nursing staff mix, 2013-2019**
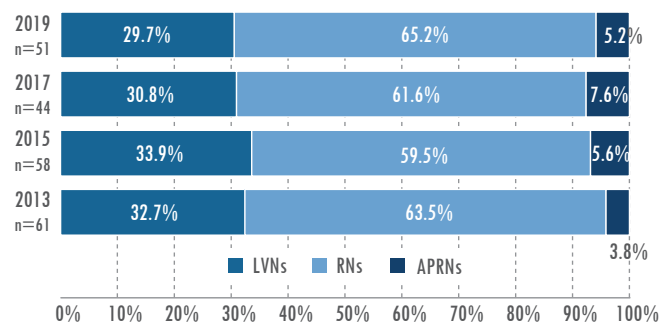
- RNs, again made up the majority of the nursing staff mix in 2019 (65.2%).
- The proportion of LVNs decreased slightly from 30.8% in 2017 to 29.7% in 2019.
- APRNs comprised 5.2% of occupied nursing staff positions, which was a decrease from 2017 (7.6%).

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

- Similar to 2017, RNs made up the vast majority of nurse positions in local health departments (58.0%) and DSHS public health service regions (88.2%).

- 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 86.7% to 88.2%) and a slight decrease in LVNs (from 11.1% to 10.9%), compared to the 2017 TGPHNSS.

Figure 2. 2019 Nursing staff mix by agency type
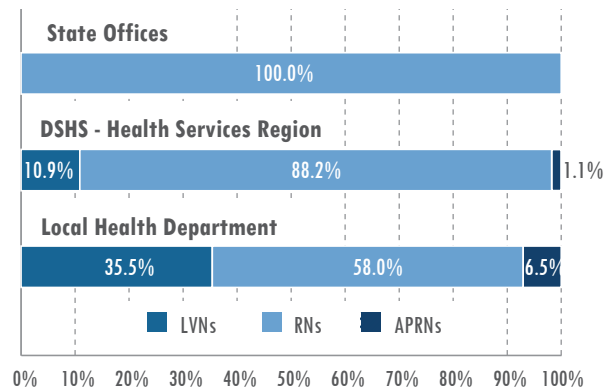
Change in Budgeted Positions

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 (n=27).

- 9 agencies increased the number of budgeted RN FTEs, 3 increased LVN FTEs, and 2 agencies added APRN FTEs.

- 7 agencies decreased the number of budgeted RN FTEs, 6 LVN FTEs, while 1 agency 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	7	32	9
APRNs	1	11	2
LVNs	6	24	3

Public health agencies that reported increasing or decreasing budgeted positions in the past two years were then asked to indicate the reasons why the change in budgeted positions occurred (Table 3).

- 12 agencies reported an increase in budgeted LVN, RN, or APRN FTEs, opening of new programs or departments was the most frequently reported reason for the increase for RNs (n=6).

- Reduction in funding was the most frequently reported reason agencies decreased the number of budgeted LVNs (n=4).

- Inability to fill existing nurse positions was the most frequently reported reason for the decrease in number of RNs (n=3).

- Agencies that reported other mentioned reclassification as the reason for both increased and decreased budgeted positions.

Table 3. Reasons agencies reported a change in the number of budgeted nurses in the past 2 years

Reasons for **INCREASED** budgeted positions				
	Opening of new programs	Increase in funding	Changes in policy	Other
RNs	6	3	2	2
APRNs	3	3	-	2
LVNs	2	-	2	2

Reasons for **DECREASED** budgeted positions					
	Closing of programs	Reduced funding	Changes in policy	Inability to fill existing positions	Other
RNs		1	1	3	5
APRNs				1	7
LVNs		4	1		5

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 4).

- 5 agencies reported they expected to budget an additional 10 LVN FTEs over the next fiscal year. This represents a decrease in both the number of agencies (4) and the number of LVN FTEs (16) that were reported in 2017.

- 8 agencies expect to budget an additional 33 RN FTEs next fiscal year. This represents an increase in the number of agencies (7) and the number of RN FTEs (26.0) reported in 2017.

Table 4. Number of additional FTEs expected to budget in next fiscal year, 2015-2019

	2015		2017		2019	
	# of Agencies	Total FTEs	# of Agencies	Total FTEs	# of Agencies	Total FTEs
RNs	10	30.3	7	26.0	8	33.0
APRNs	3	4.0	3	3.0	2	5.0
LVNs	8	21.0	4	16.0	5	10.0

- 2 agencies expect to budget 5 additional APRN FTE next fiscal year.

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.

- 2 (3.9%) agencies reported replacing 4 budgeted RN positions with budgeted LVN positions. Both agencies were local health departments.

- 1 of the 2 agencies that reported replacing budgeted RN positions with budgeted LVN positions indicated cost related issues.

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 5 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. The degree types were condensed from 4 to 2 categories for 2019.

- 52 newly licensed RNs were hired by 9 responding agencies in 2019. Comparatively, 41 newly licensed RNs were hired by 8 agencies in 2017.

- The largest proportion of newly licensed RNs hired by public health agencies had a BSN or higher (61.5%). In 2017, 73.2% of newly licensed RNs hired had an ADN.

Table 5. Number of newly licensed RNs hired by degree type

	# of Agencies	# of Newly Licensed RNs Hired
ADN or Diploma	8	20
BSN or Higher	9	32

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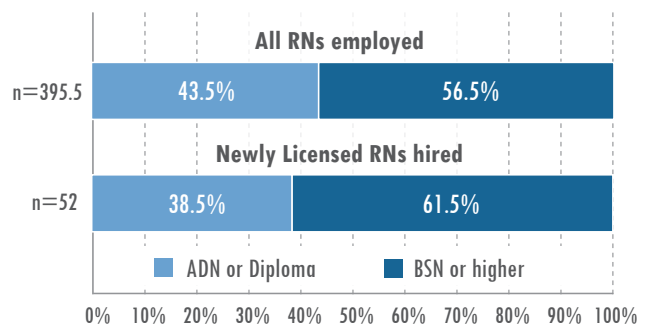
Nurse Informaticists

Respondents were also asked to report the number of nurse informaticists actively employed by their agency.
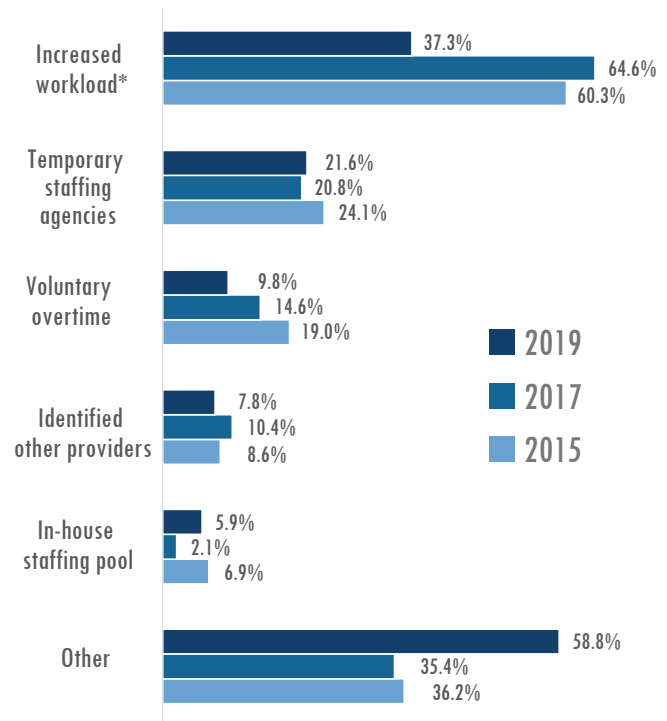
- 9 nurse informaticists were employed by 5 agencies, an increase compared to 6 nurse informaticists employed by 3 agencies in 2017.

Methods of Interim Staffing

Respondents were asked to indicate which methods of interim staffing were used in their agency. All agencies in the 2019 TGPHNSS responded to the question. More agencies reported using other methods of interim staffing in 2019 (58.8%), compared to 2017 (35.4%). 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 37.3% of agencies reporting the use of this strategy, a decrease from 2017 (64.6%).

- Temporary staffing agencies were used by 21.6% of governmental public health agencies.

- 30 agencies reported using other interim staffing methods. Of the 30 agencies that reported other methods, 2 agencies mentioned partnering with vocational schools and unversities for interns and using retired LVNs during events.

Figure 5. Interim staffing methods, 2015-2019

Method	2019	2017	2015
Increased workload*	37.3%	64.6%	60.3%
Temporary staffing agencies	21.6%	20.8%	24.1%
Voluntary overtime	9.8%	14.6%	19.0%
Identified other providers	7.8%	10.4%	8.6%
In-house staffing pool	5.9%	2.1%	6.9%
Other	58.8%	35.4%	36.2%

*Increased workload but not increased work hours

Temporary Nurses

Agencies were asked to provide the number of temporary and per diem nurse FTEs used on January 25, 2019 by nurse type. 10 agencies reported a total of 23 temporary nurse FTEs and 3 agencies reported a total of 23 per diem nurse FTEs.

- 17 temporary and 10 per diem RN FTEs were employed on the reporting date.

- 1 temporary and 5 per diem APRN FTEs were employed on the reporting date.

- 5 temporary and 8 per diem LVN FTEs were employed on the reporting date.

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 (58.8%) reported increased workload as a consequence of inadequate staffing, a slight increase from 2017 (58.3%).

- 37.3% of agencies reported not experiencing any consequences because they had an adequate supply of nursing personnel. This is a slight decrease from 2017 (37.5%).

- Inability to expand services and low nursing staff morale were 49.0% and 33.3% of agencies, respectively.

- The 4 agencies that selected other reported decrease in patients (n=2) and inability to train staff as consequences.

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

- 51.4% of local health departments, 100% of public health service regions, and 50.0% of state offices reported increased workloads as a consequence of inadequate staffing.

- 45.9% of local health departments, 75.0% of public health service regions, and 33.3% of state offices listed inability to expand services as a consequence of inadequate staffing.

- 44.4% of local health departments, 0% of public health service regions, and 50.0% of state offices reported having an adequate supply of nursing personnel.

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

	# of Agencies	% of Agencies
Increased workloads	30	58.8%
Inability to expand services	25	49.0%
Low nursing staff morale	17	33.3%
Difficulty completing required documentation on time	14	27.5%
Increase in voluntary overtime	9	17.6%
Increased nursing staff turnover	9	17.6%
Increased patient/family complaints	8	15.7%
Increased use of temporary/agency nurses	6	11.8%
Wage increases	5	9.8%
Other	5	9.8%
Increased absenteeism	2	3.9%
Increased number of incident reports	2	3.9%
None, agency had an adequate supply of nursing personnel.	19	37.3%

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	19 (51.4%)	8 (100%)	3 (50.0%)
Inability to expand services	17 (45.9%)	6 (75.0%)	2 (33.3%)
Low nursing staff morale	12 (32.4%)	3 (37.5%)	2 (33.3%)
Difficulty completing required documentation on time	8 (21.6%)	5 (62.5%)	1 (16.7%)
Increased patient/family complaints	6 (16.2%)	2 (25.0%)	0 (0.0%)
Increase in voluntary overtime	5 (13.5%)	3 (37.5%)	1 (16.7%)
Increased nursing staff turnover	5 (13.5%)	2 (25.0%)	2 (33.3%)
Other (please specify)	4 (10.8%)	1 (12.5%)	0 (0.0%)
Wage increases	4 (10.8%)	0 (0.0%)	1 (16.7%)
Increased use of temporary/agency nurses	4 (10.8%)	2 (25.0%)	0 (0.0%)
Increased absenteeism	2 (5.4%)	0 (0.0%)	0 (0.0%)
Increased number of incident reports	2 (5.4%)	0 (0.0%)	0 (0.0%)
None, agency had an adequate supply of nursing personnel.	16 (44.4%)	0 (0.0%)	3 (50.0%)

Consequences of Vacancies

The 2019 TGPHNSS asked agencies with an open-ended question to provide a description of the issues the agency faces that are the result of vacant nursing positions. 39 agencies responded to the question.

- Increased workload for existing nurses was the most frequently reported issue agencies experienced from vacant nursing positions (28.2%, n=11).

- Inability to provide normal services and increased travel time/costs were the second most frequently reported reasons (15.4%, n=6).

- Low morale, longer patient wait times and longer hours/more overtime were also reported.

Conclusion and Recommendations

Conclusion

Nurses represented 12.4% of all staffed positions in public health agencies, and RNs still represent the largest proportion among nurse types (65.2%). The proportion of RNs increased from 61.6% in 2017 to 65.2%, while LVNs decreased from 30.8% in 2017 to 29.7% in 2019.

Increased workload (not work hours) was the most frequently used interim staffing method (37.3%), followed by temporary staffing agencies (21.6%). Finally, increased workload was again the most frequently reported consequence of inadequate staffing (58.8%) and interim staffing method used.