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 2022, the Texas Center for Nursing Workforce Studies (TCNWS) administered the TGPHNSS to 88 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. A total of 50 agencies participated for a final response rate of 56.8%. It is important to note that between the 2019 and 2022 TGPHNSS, the COVID-19 pandemic occurred.

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 consequences of inadequate staffing and recruitment and retention strategies used in public health agencies.

[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 2022, 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.

- Overall, nurses represented 15.4% of all full-time employees and 16.5% of all part-time employees among responding governmental public health agencies (n=50).

- 15.5% of all full-time positions and 15.5% of all part-time positions required a nurse license.

Table 1. Staff mix by type

	FT	PT	FTE
All Employees	5,235.0	97.0	5,283.5
RNs	580.0	14.0	587.0
APRNs	38.0	2.0	39.0
LVNs	189.0	15.0	196.5

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

- RNs, again made up the majority of the nursing staff mix in 2022 (72.4%).

- The proportion of LVNs decreased from 29.7% in 2019 to 22.9% in 2022.

- APRNs comprised 4.8% of occupied nursing staff positions, which was a slight decrease from 2019 (5.2%).

Figure 1. Nursing staff mix, 2013-2022

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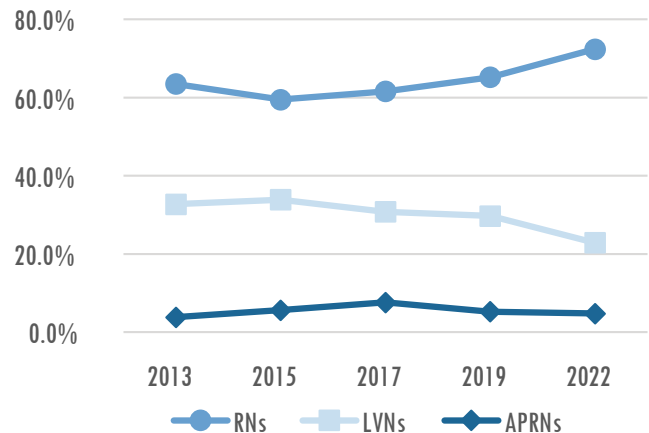
The nursing staff mix was also analyzed by agency type. As shown in Table 2:

- Similar to 2019, RNs made up the majority of nurse positions in local health departments (50.8%) and DSHS public health service regions (85.1%).

- Health and Human Services only employed RNs and did not report any other type of nurse employed. These RNs could include direct patient care and administrative positions.

Table 2. 2022 Nursing staff mix by agency type

	Local Health Departments	Department of State Health Services	Health and Human Services
RNs	50.8%	85.1%	100.0%
LVNs	40.8%	12.1%	0.0%
APRNs	8.4%	2.8%	0.0%

- DSHS public health service regions reported a decrease in RNs (from 88.2% to 85.1%) and a slight increase in LVNs (from 10.9% to 12.1%), compared to the 2019 TGPHNSS.

Change in Budgeted Positions

Agencies were asked to report the change, if any, in their number of budgeted nurse FTEs in the past 2 years (Table 4).

- Most agencies reported no change in FTEs among all nurse types over the past 2 years.

- 19 agencies increased the number of budgeted RN FTEs, 19 increased LVN FTEs, and 6 agencies added APRN FTEs.

- 5 agencies decreased the number of budgeted RN FTEs, only 1 LVN FTEs, while 4 agencies decreased APRN FTEs.

Table 4. Number of agencies reporting a change in the number of budgeted nurses in the past 2 years

	Decreased	No Change	Increased
RNs	5	20	19
LVNs	1	24	19
APRNs	4	33	6

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 5).

- The most commonly reported reason for agencies increasing budgeted RN and LVN positions was an increase in funding (14 agencies).

- Inability to fill existing nurse positions was the most frequently reported reason for the decrease in number of RNs (n=3). Reduced funding was the most frequently reported reason for the decrease in the number of LVNs (n=2).

- Agencies that reported "other" mentioned COVID-19 as the main reason new positions were added.

Table 5. 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	11	14	-	5
APRNs	5	4	2	6
LVNs	12	14	1	5

Reasons for **DECREASED** budgeted positions				
	Closing of programs	Reduced funding	Changes in policy	Inability to fill existing positions	Other
RNs	1	2	1	3	2
APRNs	1	2	-	1	1
LVNs	-	2	-	1	2

Replacing RNs with LVNs and Non-nurses

Agencies were asked which types of nurses and non-nurses their agencies replaced budgeted positions for RNs with. 5 agencies reported replacing budgeted RN positions with LVNs or non-nurses.

- 35 agencies said they did not replace any budgeted RN positions with other nurses or non-nurses.

- 4 agencies replaced budgeted RN positions with LVNs.

- 1 agency replaced budgeted RN positions with a community health worker.

- Agencies that reported replacing budgeted RN positions with other non-nurse health professionals (n=2) included a medical assistant and an epidemiologist.

Reporting agencies replaced budgeted RN position due to a lack of funding.

Transition to Practice

Agencies were asked if they have a transition to practice program for newly licensed nurses. 7 out of the responding 46 agencies reported having a program (15.2%). Agencies were also asked if they hire newly licensed RNs which are defined as those who have been licensed for less than 1 year.

■ 21 agencies said they hire newly licensed RNs. 5 of these agencies hire newly licensed RNs in 2021, with a total of 11 newly licensed RNs hired compared to 52 hired in 2019.

Agencies were also asked if they complete a needs assessment of skills for newly licensed nurses to determine training needs.

■ 4 agencies said they complete an assessment every year. 8 agencies complete an assessment as needed, and 9 agencies said they do not complete an assessment.
■ Agencies found that the skills lacking among newly licensed nurses included communication skills, confidence in skills, experience, knowledge of public health, and injections.

Vacant Nursing Positions

Agencies were asked how long it took for their vacant nursing positions to be filled, on average. Table 6 shows the length of time broken down by nurse staffing type.

■ Less than 20.0% of agencies said they were able to fill their RN positions in the first month. 35.0% of agencies said it took longer than three months to fill RN positions.
■ Over 31% of agencies indicated that it took a month to fill LVN and APRN positions.
■ Most notably, 37.5% of agencies said it took longer than three months to fill APRN positions.

Agencies were also asked what issues they have filling vacant nursing positions (Table 7).

■ The majority of the responding 42 agencies said that their pay was not competitive enough to attract nurses (71.4%).
■ Only 16.7% of responding agencies said they had no problems with filling vacant nursing positions.
■ Other reasons included a shortage of nurses (14.3%), a lack of qualified applicants (14.3%), nurses unwilling to relocate to rural areas (7.1%), and burnout due to COVID-19 (4.8%).

Table 6. Length of time to fill vacant nursing positions

	RNs	LVNs	APRNs
1-30 days	17.5%	31.4%	31.3%
31-60 days	22.5%	20.0%	6.3%
61-90 days	25.0%	22.9%	25.0%
91 days +	35.0%	25.7%	37.5%

Table 7. Issues filling vacant nursing positions (n=42)

Issues	Responses
Non-competitive pay	30 (71.4%)
No issues filling vacant nursing positions	7 (16.7%)
Shortage of nurses	6 (14.3%)
Lack of qualified applicants	6 (14.3%)
Vacancies in rural areas/nurses unwilling to relocate	3 (7.1%)
Burnout due to COVID-19	2 (4.8%)

Agencies were asked to select consequences their agency experienced in the past year due to an inadequate supply of nursing personnel. Table 8 displays the number and percentage of public health agencies who experienced consequences related to inadequate nursing personnel.

- Over half of public health agencies (58.7%) reported increased workload as a consequence of inadequate staffing, almost the same as 2019 (58.8%).

- Low nursing staff morale was the second highest selected consequence of inadequate staffing with 22 (47.8%) reporting.

- Inability to expand services and increase in overtime/comp time were 45.7% and 39.1% of agencies, respectively.

- 32.6% of agencies reported not experiencing any consequences because they had an adequate supply of nursing personnel. This is a decrease from 2019 (37.3%).

Table 8. Number and percentage of public health agencies experiencing consequences of inadequate staffing (n=46)

	# of Agencies	% of Agencies
Increased workloads	27	58.7%
Low nursing staff morale	22	47.8%
Inability to expand services/reduction of services	21	45.7%
Increase in overtime/comp time	18	39.1%
NONE - agency had an adequate supply of nursing personnel.	15	32.6%
Difficulty completing required documentation on time	13	28.3%
Increased nursing staff turnover	12	26.1%
Increased use of temporary/agency nurses	11	23.9%
Wage increases	5	10.9%
Other	1	2.2%

Table 9 displays the number and percentage of public health agencies who experienced consequences related to inadequate nursing personnel by agency type.

- 55.9% of local health departments, 71.4% of Department of State Health Service agencies, and 33.3% of Health and Human Services offices reported increased workloads as a consequence of inadequate staffing.

- 47.1% of local health departments, 57.1% of Department of State Health Service agencies, and 22.2% of Health and Human Services offices listed low nurse staff morale as a consequence of inadequate staffing.

- 47.1% of local health departments and 71.4% of Department of State Health Service agencies reported an inability to expand or reduce services.

- The one agency that reported other as a consequence of inadequate supply of nursing personnel said that they experienced a decrease in their ability to conduct tuberculosis tests, treat sexually transmitted infections, vaccinate, draw blood, collect sputum samples, and field occupational health questions around workplace-related COVID.

Table 9. Number and percentage of public health agencies experiencing consequences of inadequate staffing by agency type (n=46)

	Local Health Departments	Department of State Health Services	Health and Human Services
Increased workloads	19 (55.9%)	5 (71.4%)	3 (33.3%)
Low nursing staff morale	16 (47.1%)	4 (57.1%)	2 (22.2%)
Inability to expand services/ reduction of services	16 (47.1%)	5 (71.4%)	-
Increase in overtime/comp time	13 (38.2%)	4 (57.1%)	1 (11.1%)
NONE - agency had an adequate supply of nursing personnel.	11 (32.4%)	1 (14.3%)	3 (33.3%)
Difficulty completing required documentation on time	10 (29.4%)	2 (28.6%)	1 (11.1%)
Increased nursing staff turnover	7 (20.6%)	4 (57.1%)	1 (11.1%)
Increased use of temporary/ agency nurses	7 (20.6%)	4 (57.1%)	-
Wage increases	4 (11.8%)	1 (14.3%)	-
Other	-	1 (14.3%)	-

Recruitment and Retention Strategies

Agencies were asked to select which recruitment and retention strategies they utilize for their nursing staff. Table 10 shows the frequency of strategies selected.

- Almost all agencies said they offer paid vacation days and a retirement plan (both 97.8%) followed closely by offering health insurance (95.6%).
- A little over half of agencies (55.6%) reported offering reimbursement for workshops/conferences, followed by offering employee recognition programs (44.4%).
- No agencies used sign-on bonuses, bonuses for recruiting nursing staff to the organization, or sabbatical as a recruitment and retention strategy.
- Those who listed "other" strategies included adhering to a strict 40 hour work week (no more than 40 hours), no work on weekends or holidays, paid educational leave, and having increased leave time (6 weeks).

Agencies were also asked to rank the impactfulness of 4 different recruitment strategies.

- 77.5% of responding agencies marked pay increase as the most impactful recruitment and retention strategy.
- No agencies marked option for telework as the most impactful strategy.
- Those who marked "other" listed having all salaried positions, raises, an option for a 4 day work week, and shorter commutes.

Table 10. Recruitment and retention strategies (n=45)

Strategy	# of Agencies	% of Agencies
Paid vacation days	44	97.8%
Retirement plan	44	97.8%
Health insurance	43	95.6%
Reimbursement for workshops/conferences	25	55.6%
Employee recognition programs (employee of the month, staff dinners/luncheons, etc.)	20	44.4%
Flexible scheduling or job sharing	13	28.9%
Remote work	12	26.7%
Merit bonus	10	22.2%
Payback for unused sick/vacation time	7	15.6%
Other, please specify	5	11.1%
Career ladder positions for RNs/LVNs/APRNs	5	11.1%
Financial assistance in receiving certifications or further education	4	8.9%
Tuition (reimbursement or direct payment for employees/new hires)	3	6.7%
NONE	1	2.2%
Choice Career ladder positions for HHAs/NAs/CNAs	1	2.2%
Shift differential	1	2.2%
Sign-on bonus	0	0.0%
Bonus for recruiting nursing staff to the organization	0	0.0%
Sabbatical	0	0.0%

Conclusion

Nurses represented 15.4% of all full-time employees and 16.5% of all part-time employees among responding governmental public health agencies (n=50). 15.5% of all full-time positions and 15.5% of all part-time positions required a nursing license. RNs, again made up the majority of the nursing staff mix in 2022 (72.4%). The number of contract FTEs was much higher in the year of peak COVID-19 pandemic, 2021.

Most agencies reported no change in FTEs among all nurse types over the past 2 years. Agencies reported that COVID-19 was the main reason they had a change in the number of budgeted nursing positions.

Less than 20.0% of agencies said they were able to fill their RN positions in the first month. 35.0% of agencies said it took longer than three months to fill RN positions.

The majority of the responding 42 agencies said that their pay was not competitive enough to attract nurses (71.4%). Over half of public health agencies (58.7%) reported increased workload as a consequence of inadequate staffing.

Almost all agencies said they offer paid vacation days and a retirement plan (both 97.8%) followed closely by offering health insurance (95.6%), but 77.5% of responding agencies marked pay increase as the most impactful recruitment and retention strategy.