



Partners for a Healthy Community

Nursing and Allied Health Demand in Central Florida Hospitals: Vacancies, Turnover, and Future Need for Personnel

A Report from the Data Collection and
Forecasting Committee
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Executive Summary

Workforce Central Florida (WCF) has created an inventive Healthcare Workforce model that has been recognized at the state and national levels. With healthcare as one of its targeted industries WCF has accepted the role of convener for Partners for a Healthy Community. In October 2005, the new healthcare partnership was formally launched and an Executive Committee identified. Objectives and Operating Procedures were adopted and five working committees established.

This report is the product of work conducted by the Data Collection and Forecasting Committee whose primary objective is to create a process for healthcare demand/supply and education capacity data collection, forecasting, and reporting. Included are the results of a survey of acute care hospitals in Regional Workforce Board 12 which is comprised of Orange, Osceola, Seminole, Lake, and Sumter counties. The purpose of the study was to learn about nursing and allied health staff needs and future demands.

Of the hospital systems surveyed, three reported system-level (rather than facility-level) data. This aggregation reduced the total number of expected questionnaire returns from 20 to 15. Of the 15 expected returns, a total of 12 questionnaires were submitted for an admirable response rate of 80.0%. Combined, the 20 facilities in the area contain a total of 4,787 AHCA licensed hospital beds. The responding facilities and systems represented in these survey data contain a total of 4,155 beds, or 86.8% of the total number of licensed hospital beds in Central Florida.

Survey results are provided for healthcare workforce size, vacancy data, turnover data, need versus employee demand, strategies used to supplement permanent staffing, and nursing and allied health recruitment difficulty. As it applies to vacancy rates the greatest identified need is an inadequate supply of registered nurses, licensed practical nurses, respiratory therapists, medical laboratory technologists, occupational therapist, physical therapist, and physical therapy assistant.

In addition, hospitals reported expecting growth in their staffing needs for many nursing and allied health roles over the next two years. Increasing demand for health care associated with an aging general population is likely to cause demand for health care workers to outpace growth in supply. The implication is that vacancies, unmet need, and turnovers may increase in the coming years, if action is not taken to increase workforce supply more quickly.

The following recommendations are offered:

- **An assessment be completed of educational resources and external recruitment strategies to meet the identified need for existing vacancies and projected growth.**
- **The Health Workforce Survey be completed at least biennially to maintain currency of priorities.**
- **All hospital systems surveyed in the future report employee data at the individual facility level.**

*Nursing and Allied Health Demand in Central Florida Hospitals:
Vacancies, Turnover, and Future Need for Personnel*

Background

In April 2004, O-Force published its report *Critical Condition*ⁱ – findings from a review of data relative to healthcare workforce education needs in five Central Florida counties: Orange, Osceola, Seminole, Lake, and Sumter. The study found that current and projected demand for healthcare workers in Central Florida far outstrips the training capacity of the regions educational institutions. More specifically, O-Force found severe capacity shortages in education programs for registered nurses and 10 allied health occupations. Following publication of the report, key stakeholders were convened as a steering committee to explore potential strategies and tactics for implementation of the *Critical Condition* recommendations. It was further agreed that the vehicle for action across the region should be Partners for a Healthy Community (PHC), a consortium of healthcare providers, educational institutions and community partners whose mission is to increase the supply of trained healthcare workers in Central Florida.

Workforce Central Florida (WCF) has created an inventive Healthcare Workforce model that has been recognized at the state and national levels. With healthcare as one of its targeted industries WCF has accepted the role of convener for the PHC including funding a Director position to manage operations. In October 2005, the new healthcare partnership was formally launched and an Executive Committee identified. Objectives and Operating Procedures were adopted and five working committees established.

This report is the product of work conducted by the Data Collection and Forecasting Committee whose primary objective is to create a process for healthcare demand/supply and education capacity data collection, forecasting, and reporting. Included are the results of a survey of acute care hospitals in Regional Workforce Board 12 (RWB 12) which is comprised of Orange, Osceola, Seminole, Lake, and Sumter counties. The purpose of the study was to learn about nursing and allied health staff needs and future demands. Special thanks to Dr. Jen Nooney, Florida Center for Nursing, whose research methodology and analysis skills were offered as in-kind support of the project.

Methods

Design and Fielding

The questionnaire used in this study was developed using items from hospital nursing workforce surveys fielded successfully in several different U.S. states. It was augmented with items measuring demand for allied health personnel, and many items were modified to better match the organization and structure of hospitals in Florida. The final questionnaire, shown in Appendix A, reflects comments from experts in hospital administration and survey research who are members of the PHC Data Collection and Forecasting Committee.

ⁱ Critical Condition: The Urgent Need to Expand Healthcare Education in Central Florida – A report by O-Force: The Orlando Regional Partnership for Tomorrow’s Workforce. April 2004

Questionnaires were mailed to each of the 20 non-psychiatric hospitals in Lake, Orange, Osceola, Seminole, and Sumter counties. The list of hospitals was obtained from the Agency for Health Care Administration (AHCA)ⁱⁱ, the organization responsible for licensing and regulating most health care establishments in Florida. Psychiatric hospitals were removed from the list, as their staffing patterns and needs are substantially different from those of acute-care general hospitals. In addition to the names and address of hospitals in the state, the AHCA listing provides the county in which facilities are located and the number of beds licensed at each.

Although many of the individual facilities in this area are part of hospital systems, the survey's design called for facility-level reporting. This design provides three potential benefits for the project. First, it produces the maximum number of records for analysis, which facilitates computation of more stable averages and percentages. Second, very large numbers would not skew the values of major staffing metrics, including staff size. Third, the strategy would allow county-level analysis for some items, since some of the hospital systems have facilities in multiple counties. On the other hand, facility-level reporting can be a difficult response task for very large hospital systems. In many cases, a single individual manages data for the entire hospital system, which means that individual would need to complete questionnaires for each hospital in the system.

In advance of survey fielding, telephone contact was made with potential respondents at each hospital. Most of the hospitals in the five-county area comprising RWB 12 are PHC Executive Committee Partners, so contact with each hospital was initiated with the individual involved in the work of Partners for a Healthy Community. This individual identified the appropriate person at the hospital to complete the questionnaire. In most cases, the person identified worked in the Human Resources department of the hospital. Copies of the cover letter were also sent to the Chief Executive Officer at each hospital. Survey respondents were assured that their responses would not be identifiable in the report published by PHC; only aggregated results would be reported.

During the fielding period, which lasted about six weeks, follow-up contacts were made via phone and email to encourage participation from facilities not meeting initial questionnaire due dates.

Response Rates and Representativeness

Three of the hospital systems reported system-level (rather than facility-level) data. This aggregation reduced the total number of expected questionnaire returns from 20 to 15. Of the 15 expected returns, a total of 12 questionnaires were submitted for an admirable response rate of 80.0%.

Combined, the 20 facilities in the area contain a total of 4,787 AHCA licensed hospital beds. The responding facilities and systems represented in these survey data contain a total of 4,155 beds, or 86.8% of the total number of licensed hospital beds in Regional Workforce Board 12.

ⁱⁱ A list of AHCA licensed health care facilities in Florida can be obtained from http://www.fdhc.state.fl.us/MCHQ/Long_Term_Care/FDAU/Reports.shtml.

Florida's Agency for Workforce Innovation (FAWI) produced 2006 employment estimates for Regional Workforce Board 12ⁱⁱⁱ that allow another assessment of the present study's representativeness. They estimated that there were 11,148 *jobs* being worked by RNs, LPNs, and CNAs in RWB 12 hospitals. Our study captured information on 10,476 nursing *workers* in the hospitals responding to our survey. Although "jobs" and "workers" cannot be directly compared, since a single worker can work multiple jobs, the similarity of the two numbers suggests that our study is capturing information on the vast majority of the area's hospital nursing workforce. Notably, FAWI reports that there were 30,456 nursing jobs across all settings in the region, including the hospital setting. The likelihood of working in the hospital setting varies by nurse type, with 54.6% of RNs, 22.7% of CNAs, and 11.26% of LPNs working in area hospitals. While this study's data can be considered representative of hospital employees, it does not represent nursing and allied health workers outside the hospital setting.

Although the survey response rate and proportion of beds represented by these data are above what is typical for mail and organizational surveys, county-level analysis is not possible for any of the questionnaire items due to aggregation and confidentiality concerns. Fully disaggregated data in which each freestanding hospital responded to the survey and a 100% response rate was achieved would have allowed such analysis, within the limits imposed by the number of facilities in each county. At the level of Regional Workforce Board 12, however, results reported in this paper should be very representative given the high return rate and large proportion of beds represented by this survey.

Results

Healthcare Workforce Size

Respondents were asked to report the number of full-time equivalent employees and total number of employees at their facilities as of December 31, 2006. A total of 11,121.08 full-time equivalent (FTE) employees are represented by the responses to this survey. The FTE metric describes the size of the workforce in terms of the amount of labor provided; 11,121.08 FTEs indicates the amount of labor provided by approximately 11,121 employees working full time in the organization. An employee working half-time would be counted as 0.5 FTEs in this calculation, for example. The total number of workers described by a given number of FTEs is generally much larger than the number of FTEs due to part-time labor, although employees working substantial scheduled overtime might constitute greater than 1.0 FTEs each. In this survey, the number of workers described is 13,538. On average, then, each employee described by the survey constitutes approximately 0.82 FTEs.

Table 1 below provides FTE and worker counts for all responding hospitals, by position type. When nursing and allied health positions are considered separately, nursing labor constitutes approximately 77% of the total number of FTEs and workers counted in Table 1. Among nursing positions, RNs in direct care positions are the largest single employee type, comprising over half of the total number of FTEs (5,997.45) and workers (7,411). Following in distant 2nd place is the number of CNA FTEs (1,666.44) and workers (1,955). The total allied health workforce in

ⁱⁱⁱ Florida Agency for Workforce Innovation employment statistics were produced by request for the Florida Center for Nursing in September 2006.

responding hospitals is comprised of 2,547.15 FTEs and 3,062 workers. The largest allied health employee types in terms of workforce size are respiratory therapists, radiographers, surgical technologists, and medical laboratory technologists^{iv}.

In addition to workers that appear on a facility’s payroll, hospitals also employ temporary labor in the form of local agency and contract/traveling employees. Also listed in Table 1 is the number of temporary employees of each type, excluding per diem employees who are on a facility’s payroll and included under “Workers Employed”. Most of the workers employed in RWB 12 hospitals are on the facility’s payroll. Only 631 nursing staff members, or about 5% of the total nursing staff, are local agency or contract/traveling nurses. Less than 2% of allied health staff members are temporary.

Table 1. Respondent Counts of Employees, by Position

Position Type	FTEs Employed		Workers Employed		Temporary Workers	
	Sum	N	Sum	N	Sum	N
RN - Direct Care	5,997.45	12	7,411	12	531	11
CNA	1,666.44	12	1,955	12	83	10
RN - Indirect Care	483.88	11	590	11	0	4
LPN	394.24	12	486	12	17	5
ARNP	31.92	9	34	9	0	5
Total Nursing Employees	8,573.93		10,476		631	
Respiratory Therapist	518.56	12	627	12	5	7
Radiographer	303.93	12	374	12	4	5
Surgical Tech	302.81	12	346	12	12	7
Medical Lab Tech	281.08	12	343	12	1	5
Pharmacy Tech	241.23	12	298	12	0	5
Pharmacist	240.74	12	279	12	2	5
CT Technologist	151.85	12	168	12	1	5
Physical Therapist	148.95	12	193	12	5	7
Sonographer	105.84	11	128	11	1	5
MRI Technologist	73.51	12	86	12	2	7
Occupational Therapist	61.07	11	73	11	4	5
Physical Therapy Assistant	44.81	10	55	10	0	5
Vascular Technologist	26.00	9	36	9	5	5
Radiation Therapy Tech	22.78	10	28	10	0	5
Mammography Tech	19.40	6	22	6	1	5
Occupational Therapy Assistant	4.59	7	6	7	1	4
Total Allied Health Employees	2,547.15		3,062		44	
Total Workers Described by this Survey	11,121.08		13,538		675	

^{iv} Definitions of each employee type were provided to respondents and are available to readers in the Appendix to this report.

Vacancy Data

Table 2 reports the total number of vacant positions on December 31, 2006 and the proportion of positions vacant on that date across responding hospitals, for each employee type. A total of 915 vacancies were reported across all employee types. Nursing vacancies, at 739 total, made up the majority. The largest single number of vacancies was reported for RNs in direct care positions, a deficit of nearly 600 workers. Among allied health occupations, the largest numbers of vacancies were reported for respiratory therapists, medical laboratory technologists, and physical therapists.

Table 2. Vacancies and Vacancy Rates

Position Type	Total Vacant Positions		Position Vacancy Rate*	
	Sum	N	% vacant	N
RN - Direct Care	599	12	7.48	12
CNA	77	9	3.95	9
LPN	33	7	7.35	7
RN - Indirect Care	26	9	4.30	9
ARNP	4	7	**	2
Total Nursing Vacancies	739			
Respiratory Therapist	46	6	8.35	6
Medical Lab Tech	35	8	10.29	8
Physical Therapist	21	10	10.19	10
Pharmacist	14	6	5.79	6
Surgical Tech	13	6	4.68	5
CT Technologist	7	6	6.03	6
Radiographer	7	7	2.99	7
Occupational Therapist	7	6	11.48	6
Pharmacy Tech	7	6	2.87	6
Physical Therapy Assistant	6	5	14.63	5
Sonographer	6	6	7.23	6
MRI Technologist	2	5	5.00	5
Radiation Therapy Tech	2	8	**	4
Vascular Technologist	2	8	5.26	4
Mammography Tech	1	6	**	4
Occupational Therapy Assistant	0	5	**	1
Total Allied Health Vacancies	176			
Total Vacancies Described by this Survey	915			

* The position vacancy rate reported here is the proportion of positions that are vacant for each employee type across all responding hospitals. It was computed by dividing the *total number of vacancies* by the *number of filled plus the number of vacant positions* for each employee type. This measure does not distinguish between full-time and part-time positions. This measure was computed using data from facilities providing both employment and vacancy data for the employee type.

** The rate is unstable for one or both of the following reasons: three or fewer facilities/systems provided data, or fewer than 30 employees of this type are represented across all responding hospitals.

The vacancy rate, computed here as the proportion of positions (both full- and part-time) that were vacant on a December 31, 2006, is reported in Table 2 for each employee type in which more than 30 workers are employed across the responding hospitals and where more than three facilities reported both employment and vacancy data. At the facility level, high vacancy rates generally indicate that facilities are having difficulty recruiting and hiring employees of a given type. Within the geographic boundaries of a labor market, variation in vacancy rates across facilities can indicate variations in the quality of the work environment or the expansion of facilities that are struggling to grow their staff sizes. When the labor market area is viewed in aggregate, as it is in the position vacancy rates reported in Table 2, high vacancy rate can indicate a labor shortage or rapid growth in demand for specific employee types. In either case, a higher vacancy rate means a heavier workload for existing employees or increased use of temporary personnel.

Vacancy rates above 8% can indicate a concerning level of instability in staffing. Vacancy rates for RNs in direct care and for LPNs are very close to the 8% mark, and rates for some of the allied health positions are above this mark.

Turnover Data

Respondents were asked for the total number of persons in each employee type separating from the facility due to all causes between January 1, 2006 and December 31, 2006. Turnover rates, or the proportion of employees separating from the facility, were computed based on the staff size respondents reported on December 31, 2006. Table 3 reports the number of separations (or “turnovers”) as well as statistics on facility-level turnover rates. Because turnover is linked most strongly to facility-level characteristics, there is no accepted measure of turnover within the geographic region as a whole. That is, turnover data are not combined across all facilities in this study. Instead, Table 3 reports the range and quartiles of facility-level turnover rates for each employee type.

Because of the small sample size of this study, facility-level turnover rates must be interpreted with caution. If a small number of facilities employ a certain staff type, or if the numbers of staff members of a given type are generally small within a specific facility, average turnover rates can be highly skewed. The reporting strategy used in Table 3 attempts to correct for these problems by omitting results when fewer than five facilities reported turnover data and by presenting median (instead of average) facility turnover rates. The inter-quartile range (the size of the gap between the 25th and 75th percentiles) can be used to understand how widely turnover rates are distributed across hospitals. For example, although turnover for RNs in indirect care ranges from 0% to 150% in responding hospitals (the latter value indicating that more employees quit during the year than the total number employed at the end of the year), the inter-quartile range shows that about half of the facilities had turnover rates ranging from 12.2% to 23.0% - a much narrower range.

Table 3 shows that a total of 2,292 employees left their employers during calendar year 2006. The majority of turnovers were among nursing staff, a finding consistent with their relative size. More than half of all turnovers occurred for RNs in direct care positions, and the median facility-level turnover rate for this employee type was 16.4%. Among allied health positions, the greatest

number of turnovers and the highest turnover rate were observed for Surgical Technologists. A total of 84 Surgical Techs left their employers in 2006, and the median facility-level turnover rate was 27.7%

Table 3. Turnovers and Turnover Rates

Position Type	Total workers leaving		Facility Turnover Rates*				
	N	Sum	N	Range	Bottom Quartile (25%)	Median (50%)	Top Quartile (75%)
RN - Direct Care	11	1,212	11	13.5 - 44.4	14.7	16.4	20.8
CNA	11	409	11	8.4 - 73.5	13.3	18.2	24.6
RN - Indirect Care	10	99	10	0.0 - 150.0	12.2	19.6	23.0
LPN	9	76	9	5.6 - 38.1	14.3	20.0	28.6
ARNP	7	8	2	**	**	**	**
Total Nursing Turnovers		1,804					
Surgical Tech	10	84	9	8.7 - 50.0	25.0	27.7	34.8
Respiratory Therapist	8	75	8	0.0 - 100.0	6.9	12.4	18.3
Radiographer	10	68	10	0.0 - 49.9	8.3	20.0	29.2
Pharmacy Tech	10	60	10	11.8 - 150.0	18.2	22.5	31.1
Medical Lab Tech	9	44	9	5.3 - 36.4	11.1	13.3	30.0
Pharmacist	8	39	8	0.0 - 133.3	8.6	15.1	17.2
CT Technologist	9	26	9	0.0 - 50.0	12.5	14.8	23.1
Physical Therapist	9	22	9	0.0 - 50.0	0.0	14.3	15.4
Sonographer	8	22	8	0.0 - 62.5	10.6	16.0	46.4
MRI Technologist	6	11	6	0.0 - 100.0	0.0	15.3	23.1
Occupational Therapist	8	11	7	0.0 - 33.3	11.5	20.0	33.3
Vascular Technologist	8	8	3	**	**	**	**
Physical Therapy Assistant	6	7	5	0.0 - 33.3	0.0	11.8	28.6
Radiation Therapy Tech	7	7	3	**	**	**	**
Mammography Tech	5	3	4	**	**	**	**
Occupational Therapy Assistant	6	1	2	**	**	**	**
Total allied health turnovers		488					
Total Turnovers Described by this Survey		2,292					

* Facility-level turnover rates were computed as the total number of separations for each employee type in 2006 divided by the total number of workers employed for that type on December 31, 2006.

** Turnover rates are unstable and not reported where fewer than five facilities provided turnover data for an employee type.

Need Versus Employee Demand

“Demand” is an economic concept indicating the number of employees an organization wishes to employ given the prevailing wages in a geographic labor market. The number of positions or FTEs allocated for a given employee type reflects economic demand for that type of employee. This value may be equal to, less than, or (rarely) greater than the number of employees an organization “needs” to provide efficient and safe patient care. The non-economic concept of need is open to interpretation by respondents, since “need” is based on one’s understanding of

“safe patient care” or “efficiency.” While less significant for workforce planners, since economic demand will drive employment patterns, respondents’ assessment of “need” is illuminating because it indicates a perception that care delivery is compromised by an inadequate healthcare workforce.

For each employee type, respondents were asked whether their need for employees is greater than, equal to, or less than the number of positions budgeted for each type. The results are reported in Table 4. Nearly 90% of respondents reported that their need for direct care RNs exceeded current staffing. More than 40% of respondents reported unmet need for ARNPs, Pharmacists, and Respiratory Therapists.

Table 4. Current Needs Assessment

Position Type	Percent Reporting Current Need is Greater than Current Budgeted Positions	
	%	Total N
RN - Direct Care	88.90	9
ARNP	50.00	8
Pharmacist	44.40	9
Respiratory Therapist	44.40	9
CNA	33.30	9
Surgical Tech	33.30	9
MRI Technologist	22.20	9
CT Technologist	11.10	9
Physical Therapist	11.10	9
LPN	0.00	9
RN - Indirect Care	0.00	8
Radiographer	0.00	9
Mammography Tech	0.00	9
Medical Lab Tech	0.00	9
Occupational Therapist	0.00	9
Occupational Therapy Assistant	0.00	7
Pharmacy Tech	0.00	9
Physical Therapy Assistant	0.00	9
Radiation Therapy Tech	0.00	8
Sonographer	0.00	9
Vascular Technologist	0.00	9

Strategies Used to Supplement Permanent Staffing

When nurse staffing levels are inadequate due to high vacancy rates, or when workforce demand fluctuates due to seasonal variation in demand for health care, hospitals supplement the regularly scheduled labor provided by permanent employees with overtime scheduling, foreign recruitment, and increased reliance on contract or agency nurses not employed directly by the facility. Respondents were asked about their facility’s use of these strategies during calendar year 2006.

Nine of 12 respondents reported that their facility or system utilized foreign recruitment. A total of 112 foreign nurses were hired by these nine facilities. The majority of these foreign nurses were recruited from the Philippines and India. Other countries from which Central Florida hospitals recruited were Canada and England/UK. The Philippines is a well-known exporter of nursing labor to facilities in the United States. As the global nursing shortage increases in magnitude over the coming decade, however, there may be increasing costs and ethical issues associated with foreign recruitment.

Hospitals reported spending between 0.25% and 14.76% of their nursing budgets on outside staffing agencies. The average percent spent across the 12 hospitals was around 5%. They reported spending between 2.0% and 7.21% of their nursing budgets on overtime pay for permanent nursing staff. The average percent spent was about 5%. Most hospitals thought they would spend less of their budgets on these strategies during calendar year 2007. About two-thirds said they would spend less money on outside staffing, and 75% said they would spend less money on overtime.

Nursing and Allied Health Recruitment Difficulty

Respondents were asked to rate their level of difficulty in recruiting staff for a number of nursing and allied health roles during calendar year 2006. They were also asked to provide the average number of days it took to hire employees for the role and whether they would need more, the same number, or fewer employees for the role over the next two years. These items help to identify nursing and allied health roles that are in high demand today and those we can expect to experience high demand in the near future.

Table 5 presents results for nursing roles. Note that the number of facilities responding for each role varies widely. This occurs because not all hospitals utilize each of the roles, and among those that do, not all hospitals have recruited or hired for the role over the past year. Percentages must be interpreted cautiously in view of the small numbers of responses.

The nursing roles for which recruiting difficulty is greatest are generally those involving emergency/critical care and management/administration. Adult critical care RNs were most difficult to recruit, with 100% of responding facilities reporting difficulty. More than 50% of facilities also reported difficulty recruiting operating room RNs, unit-level nurse managers, clinical nurse specialists, oncology RNs, emergency department RNs, nurse administrators, and pediatric critical care RNs. Clearly, a large number of different nursing roles are considered difficult roles for which to recruit and hire by the majority of hospitals. Though perception-based, these results suggest that respondents are feeling the effects of a nursing shortage in Central Florida.

In keeping with these findings, respondents generally reported lengthy fill times for open positions in these nursing roles. The number of days taken to fill open positions is influenced by a number of facility-level factors, including the number of steps in a hospital's hiring process. Due to the small number of responses to this item and the prominence of facility-level influence on hiring times, fill times are not reported in Table 5. Among those items with sufficient

response rates, the role taking the most time to fill, on average, is the unit-level nurse manager. It took hospitals an average of over 100 days to fill these positions during calendar year 2006.

Table 5. Nursing Staff Recruitment Difficulty and Future Need

Position	% Reporting Recruitment Difficulty*		% Needing More Over Next Two Years	
	%	N	%	N
Adult Critical Care RNs	100.0	11	63.6	11
Long-term care RNs	100.0	1	50.0	2
Operating Room RNs	81.8	11	45.5	11
Unit-level Nurse Managers	81.8	11	45.5	11
MSN-prepared CNS	80.0	5	20.0	5
Oncology RNs	75.0	8	44.4	9
ED RNs	72.7	11	50.0	12
Nurse Administrators	71.4	7	12.5	8
Pediatric Critical Care RNs	66.7	3	40.0	5
Dialysis RNs	50.0	4	20.0	5
Neonatal Critical Care RNs	50.0	4	50.0	4
Nurse Practitioners	50.0	4	20.0	5
Cardiac Cath Lab RNs	40.0	10	25.0	8
Labor & Delivery/Postpartum care RNs	37.5	8	55.6	9
Pre- and Post-op care RNs	36.4	11	30.0	10
Graduate Nurses	33.3	9	62.5	8
Med-Surg/Telemetry RNs	33.3	12	58.3	12
In-service Educators	33.3	9	33.3	9
Ambulatory care clinic RNs	20.0	5	16.7	6
Home-health care RNs	20.0	5	33.3	6
Quality and Infection Control	16.7	6	28.6	7
Case Managers/Discharge planners	9.1	11	18.2	11
CNAs	0.0	12	41.7	12
LPNs	0.0	9	18.2	11
Pediatrics RNs	0.0	6	50.0	6
Rehabilitation RNs	0.0	6	37.5	8
Nurse Anesthetists		0		0
Nurse Midwives		0		0

* Respondent reported difficulty as “4” or “5” on a five-point scale.

Some of the roles in highest demand currently may be in even higher demand over the next two years. More than 60% of facilities expect that demand for adult critical care RNs will increase over the next two years. As well, more than half of responding facilities expect to need more labor and delivery nurses, graduate nurses, and med-surg/telemetry RNs. A look down the column reporting future demand indicates that many hospitals expect to expand their staff sizes for a substantial number of nursing roles.

Table 6 presents these results for roles in allied health. The most difficult personnel types to recruit are occupational therapists and physical therapists. Occupational therapy positions took

the longest to fill at 115 days. Again, however, Table 6 shows that a large number of different allied health positions were considered difficult to fill by a majority of respondents.

Table 6. Allied Health Staff Recruitment Difficulty and Future Need

Position	% Reporting Recruitment Difficulty*		% Needing More Over Next Two Years	
	%	N	%	N
Occupational Therapist	100.0	8	22.2	9
Physical Therapist	100.0	11	41.7	12
Mammography Technologist	77.8	9	22.2	9
Pharmacist	72.7	11	33.3	12
Vascular Technologist	71.4	7	28.6	7
MRI Technologist	66.7	12	25.0	12
Radiation Therapy Tech	62.5	8	10.0	10
Medical Lab Tech	54.5	11	16.7	12
Physical Therapy Assistant	54.5	11	33.3	12
OT Assistant	40.0	5	50.0	6
CT Technologist	36.4	11	36.4	11
Radiographer	25.0	12	33.3	12
Respiratory Therapist	22.2	9	22.2	9
Sonographer	22.2	9	10.0	10
Pharmacy Technician	18.2	11	16.7	12
Surgical Technologist	10.0	10	18.2	11

* Respondent reported difficulty as “4” or “5” on a five-point scale.

Responding hospitals did not report expecting the same level of staff expansions in allied health as they did for many nursing staff roles. The allied health personnel for which we can expect the most growth over the next two years are occupational therapy assistants and physical therapists.

Discussion

Although the response rate and representation of staffed hospital beds in Regional Workforce Board 12 are very good, the small geographic area considered in this study imposes limitations on the metrics that can be computed and reported. Averages and percentages are less robust and stable when only 12 records are used in their computation. Item nonresponse – missing data generated when respondents skip an item or when it does not apply – further complicates reporting efforts. Future research on hospital workforce needs would benefit from expanding the geographic area considered to larger regions of the state.

On the other hand, the hospitals’ ties to Partners for a Healthy Community – a collaborative operating within RWB 12 – undoubtedly strengthened the project by encouraging participation. Indeed, the response rate obtained for this survey is unusually high for mail surveys of organizations. This suggests that future research should continue to capitalize on the organizational commitments of hospital executives to improve response rates and representativeness.

The final response rate for this project was very good, but it was achieved only after multiple follow-ups and extending the deadline for participation. One possible cause of delayed responses is the length of this survey. At nine full pages of items, most of which require consultation of hospital staffing records, the survey likely requires a substantial time commitment from respondents.

Conclusions

The 2004 O-Force report was based on analysis of secondary data from the Florida Agency for Workforce Innovation and the U.S. Census Bureau related to employment within the Central Florida region. This report is an analysis of primary data collected from hospitals in the same region for calendar year 2006. When comparing the results reported for the year 2006 to the 2004 O-Force *Critical Condition* Report it is evident that there has been a shift in positions of greatest concern. As it applies to vacancy rates, common to both reports is the need to address inadequate supply of registered nurses, licensed practical nurses, respiratory therapists, and medical laboratory technologists. Newly identified positions of concern are occupational therapist, physical therapist, and physical therapy assistant. Positions no longer indicating vacancy rates of concern are pharmacist, vascular technologist, radiographer, and radiation therapy technician.

Results of this study indicate that Central Florida hospitals are feeling the effects of an inadequate labor supply. Major workforce metrics, including vacancy rates, unmet current need, and turnover rates, suggest workforce instability for many types of nursing and allied health employees. In addition, hospitals reported expecting growth in their staffing needs for many nursing and allied health roles over the next two years. Increasing demand for health care associated with an aging general population is likely to cause demand for health care workers to outpace growth in supply. The implication is that vacancies, unmet need, and turnovers may increase in the coming years, if action is not taken to increase workforce supply more quickly. Because nurses constitute the largest proportion of hospital workers, instability in the nursing workforce is a serious concern for Central Florida hospitals.

Complicating any effort to address health workforce issues is the hyper turbulent nature of the health care industry. Response to industry need is encumbered by the constraints of the education system's ability to produce graduates prepared to function in response to the changing healthcare environment. Dynamic external forces such as technology and private/government sponsored reimbursement systems also drive health care finances, as well as workforce supply and demand.

Recommendation: That an assessment be completed of educational resources and external recruitment strategies to meet the identified need for existing vacancies and projected growth.

Within allied health the fields of physical therapy and occupational therapy call for greatest attention when considering vacancies, recruitment difficulty, and future need. The same can be said within nursing for direct care registered nurses and licensed practical nurses specifically in the areas of adult critical care, long-term care, operating room, unit-level nurse management, and

master's prepared clinical nurse specialist. Once the assessment is complete, priorities for policy recommendations, distribution of resources and appropriate next steps can be identified.

Recommendation: That the Health Workforce Survey be completed at least biennially to maintain currency of priorities.

Future data collection efforts might benefit from separating nursing and allied health items into two surveys. Partnerships could be forged with agencies whose mission involves data collection. For example, the Florida Center for Nursing could focus on the collection of nursing workforce data in hospitals so that future PHC research efforts could focus more exclusively on allied health data elements.

Recommendation: That all hospital systems surveyed in the future report employee data at the individual facility level.

The survey's design called for facility-level reporting to maximize the value of results. As previously stated, this facilitates computation of more stable averages and percentages as well as minimizes skewing of results. Facility-level reporting would allow county-level analysis for some items and the ability to develop strategies to address issues at the county level. In the Central Florida region, this would accommodate planning at the community colleges.



Health Workforce Survey

We would appreciate your participation in this survey. This survey relates to hospital personnel only.

Thank you for taking the time to complete this survey.

Position	Nursing Definitions
CNA (Titles may vary)	Under the supervision of a staff nurse, performs routine, non-therapeutic assignments such as taking vital signs, grooming, bathing, collecting specimens, feeding, transport, positioning, assisting in dressing changes
LPN	Under the direction of physicians and staff nurses, provides nursing care which requires technical knowledge but not the professional knowledge of an RN.
RN (Direct Care)*	Refers to a registered nurse whose primary role is to provide direct patient care utilizing the nursing process which includes assessment, nursing diagnosis, planning, implementation and evaluation of care. Responsibilities may also include: patient teaching and counseling, administering treatments and medications, documenting care given and patients' response to treatment and supervising.
RN (Indirect Care)*	Any registered nurse that does not meet the above definition.
ARNP	Refers to individuals licensed as and working within the scope of practice of an Advanced Registered Nurse Practitioner.

*Include Clinical Nurse Specialists in RN Direct Care or Indirect Care as appropriate to their function.

Position	Allied Health Definitions
CT Technologist	Performs CT scanning and venipuncture. Injects IV contrast materials. Does not have supervisory or managerial responsibilities.
Diagnostic Radiology Technologist/Radiographer	Performs radiographic procedures
MRI Technologist	Performs MRI procedures. Working knowledge of MRI equipment including various head and body coils, computer technology, and laser imager.
Mammography Technologist	Operates mammography equipment to perform exams ranging from simple, routine mammograms to more complex needle localizations in conjunction with a Radiologist.
Medical Laboratory Technologist	Performs various chemical, microscopic, and/or bacteriologic tests to obtain data used in diagnosis and treatment. Applies routine techniques used in fields of bacteriology, mycology, parasitology, histopathology, hematology, serology, allergy, and/or chemical, radioactive, or morphologic examinations. Responsible for carrying procedures to completion (and a numerical answer). Records laboratory test results (but does not prepare diagnostic reports).
Occupational Therapist	Instructs those with disabilities, such as spinal cord injuries, cerebral palsy, or muscular dystrophy, in the use of adaptive equipment, including wheelchairs, orthotics, and aids for eating and dressing.
Occupational Therapist Assistant	Assist patients with rehabilitative activities and exercises outlined in a treatment plan developed in collaboration with an occupational therapist.
Operating Room/Surgical Technologist	Assists as requested in surgical procedures and related treatments. Responsible for the physical arrangement of patients and equipment for surgical procedures as directed by the surgeon or responsible nurse; responsible for clean-up duties as well as maintaining aseptic nature of environment. Reports to the supervisor in the operating room.
Pharmacist, Staff	Responsible to pharmacy supervisor for compounding stat orders, IV additives, checking patient unit charts, and working on the patient unit with the nurses. Checks and verifies all work performed by pharmacy technicians, and keeps record of all pre-packaged full drugs. Fills all intravenous solutions and investigational drug orders.
Pharmacy Technician	Assist pharmacist in preparing dose package, maintains records, and codes prescriptions for data processing or billing procedures. Performs routine duties including receiving unpacking, and storing supplies; checking shipment against invoices; delivering drug orders and running errands; washing bottles and glassware; filling requisitions.
Physical Therapist	Performs specialized techniques of physical therapy upon patients, under recommendation of a physician, applying all modalities of specialized equipment, and recording pertinent data in patient charts. May assist the director of physical therapy or chief therapist in the training of therapist aides or other registered therapists.
Physical Therapy Assistant	Assists registered physical therapist in patient evaluation and treatment procedures. May administer most of the modalities of treatment programs as planned and directed by the staff therapist. Observes and reports patient response to treatment. May assist with clerical duties and maintenance of equipment and supplies.
Radiation Therapy Technologist	Applies ionizing radiation to patient in accordance with the prescribed course of radiation therapy treatment.
Respiratory Therapist	Performs the specialized techniques of respiratory therapy under the direction of the director of pulmonary services, supervisor of pulmonary services, or physician in charge. Acts as consultant to medical staff in all areas of respiratory therapy.
Ultrasound Technologist/Sonographer General and Obstetrics	Operates ultrasound equipment performing routine and special examinations. Assist physicians in completing amniocentesis and other specific localization studies. Also included general and obstetrics.
Vascular Technologist	Performs all the duties related to non-invasive testing for peripheral vascular disease including duplex imaging for the extremities, segmental Doppler pressures, phleborthographs (PRG's), reflex heating, never blocks, and transcranial Dopplers.

Please fill in the following information as of 12/31/06 except when directed otherwise.

How many hours per week is equivalent to 1 FTE (Full-Time Equivalent) position at your hospital? _____ hours

Position	No. of Budgeted FTE's ^v "0" if no budgeted FTE's	No. of Actual FTE's Employed Do not include travelers	No. of Actual workers employed Head count	No. of Vacant positions actively being recruited Head count	No. of In-house Per Diem staff employed ^{vi} Head count	No. of Local Agency workers ^{vii} Head count	No. of Agency/Traveling workers contracted ^{viii} Head count	No. of Workers leaving your hospital during the last calendar year ^{ix} Head count	In your opinion, is actual need greater than, equal to, or less than budgeted FTE's for this position?
CNA									___ Greater ___ Equal ___ Less
LPN									___ Greater ___ Equal ___ Less
RN Direct Care									___ Greater ___ Equal ___ Less
RN Indirect Care									___ Greater ___ Equal ___ Less
ARNP									___ Greater ___ Equal ___ Less

^v Budgeted FTEs refer to the total number of FTE positions authorized by management to fulfill staffing requirements for the year.

^{vi} In-House per diem staff employed on your payroll. These are included in your No. of Actual Workers Employed.

^{vii} Refers to the number of local staffing agency personnel used on a day-to-day basis, not on your payroll.

^{viii} Agency/Traveler worker refers to any contract labor other than day-to-day contract basis and not on your payroll.

^{ix} When reporting the number of persons who left, please include both voluntary and involuntary leavers. Do not count those who moved from one position to another within the hospital. Do not count persons who were hired but never reported to work.

Position	No. of Budgeted FTE's ^v "0" if no budgeted FTE's	No. of Actual FTE's Employed Do not include travelers	No. of Actual workers employed Head count	No. of Vacant positions actively being recruited Head count	No. of In-house Per Diem staff employed ^{vi} Head count	No. of Local Agency workers ^{vii} Head count	No. of Agency/Traveling workers contracted ^{viii} Head count	No. of Workers leaving your hospital during the last calendar year ^{ix} Head count	In your opinion, is actual need greater than, equal to, or less than budgeted FTE's for this position?
CT Technologist									___ Greater ___ Equal ___ Less
Diagnostic Radiology Technologist/ Radiographer									___ Greater ___ Equal ___ Less
MRI Technologist									___ Greater ___ Equal ___ Less
Mammography Technologist									___ Greater ___ Equal ___ Less
Medical Laboratory Technologist									___ Greater ___ Equal ___ Less
Occupational Therapist									___ Greater ___ Equal ___ Less

ⁱ Budgeted FTEs refer to the total number of FTE positions authorized by management to fulfill staffing requirements for the year.

² In-House per diem staff employed on your payroll. These are included in your No. of Actual Workers Employed.

³ Refers to the number of local staffing agency personnel used on a day-to-day basis, not on your payroll.

⁴ Agency/Traveler worker refers to any contract labor other than day-to-day contract basis and not on your payroll.

⁵ When reporting the number of persons who left, please include both voluntary and involuntary leavers. Do not count those who moved from one position to another within the hospital. Do not count persons who were hired but never reported to work.

Position	No. of Budgeted FTE's ¹ "0" if no budgeted FTE's	No. of Actual FTE's Employed Do not include travelers	No. of Actual workers employed Head count	No. of Vacant positions actively being recruited Head count	No. of In-house Per Diem staff employed ² Head count	No. of Local Agency workers ³ Head count	No. of Agency/Traveling workers ontracted ⁴ Head count	No. of Workers leaving your hospital during the last calendar year ⁵ Head count	In your opinion, is actual need greater than, equal to, or less than budgeted FTE's for this position?
Occupational Therapist Assistant									___ Greater ___ Equal ___ Less
Operating Room/Surgical Technologist									___ Greater ___ Equal ___ Less
Pharmacist, Staff									___ Greater ___ Equal ___ Less
Pharmacy Technician									___ Greater ___ Equal ___ Less
Physical Therapist									___ Greater ___ Equal ___ Less

¹ Budgeted FTEs refer to the total number of FTE positions authorized by management to fulfill staffing requirements for the year.

² In-House per diem staff employed on your payroll. These are included in your No. of Actual Workers Employed.

³ Refers to the number of local staffing agency personnel used on a day-to-day basis, not on your payroll.

⁴ Agency/Traveler worker refers to any contract labor other than day-to-day contract basis and not on your payroll.

⁵ When reporting the number of persons who left, please include both voluntary and involuntary leavers. Do not count those who moved from one position to another within the hospital. Do not count persons who were hired but never reported to work.

Position	No. of Budgeted FTE's ¹ "0" if no budgeted FTE's	No. of Actual FTE's Employed Do not include travelers	No. of Actual workers employed Head count	No. of Vacant positions actively being recruited Head count	No. of In-house Per Diem staff employed ² Head count	No. of Local Agency workers ³ Head count	No. of Agency/Traveling workers contracted ⁴ Head count	No. of Workers leaving your hospital during the last calendar year ⁵ Head count	In your opinion, is actual need greater than, equal to, or less than budgeted FTE's for this position?
Physical Therapist Assistant									___ Greater ___ Equal ___ Less
Radiation Therapy Technologist									___ Greater ___ Equal ___ Less
Respiratory Therapist									___ Greater ___ Equal ___ Less
Ultrasound Technologist/Sonographer General and Obstetrics									___ Greater ___ Equal ___ Less
Vascular Technologist									___ Greater ___ Equal ___ Less

¹ Budgeted FTEs refer to the total number of FTE positions authorized by management to fulfill staffing requirements for the year.

² In-House per diem staff employed on your payroll. These are included in your No. of Actual Workers Employed.

³ Refers to the number of local staffing agency personnel used on a day-to-day basis, not on your payroll.

⁴ Agency/Traveler worker refers to any contract labor other than day-to-day contract basis and not on your payroll.

⁵ When reporting the number of persons who left, please include both voluntary and involuntary leavers. Do not count those who moved from one position to another within the hospital. Do not count persons who were hired but never reported to work.

1. Has your hospital actively recruited RNs from a foreign country for the previous calendar year?

- Yes – if yes, how many have actually been hired and are working. # _____ Country: _____
_____ Country: _____
_____ Country: _____

No – proceed to question 2

2. Number of RN's hired from outside of Florida, but from within the USA for the previous calendar year: _____

3. Approximately what percent of your last calendar year's nursing budget was spent on:

- a. _____% Outside staffing agencies (both long and short term)
b. _____% Overtime for combined nursing staff (CNAs, LPNs and RNs)

4. Do you expect these expenditures to be higher, lower, or about the same for the next calendar year?

- a. Outside staffing ___ higher ___ lower ___ about the same
b. Overtime ___ higher ___ lower ___ about the same

5. Please report your experience in the past year in finding and recruiting nurses to fill these roles:

	Do not employ	Did not Hire in Past Year	A Recruitment difficulty					B Average number of days it has taken to fill these positions in the past year	C Over the next 2 years, will your organization need fewer, more or about the same number of this type of nursing personnel? <i>Please check the appropriate boxes</i>		
			Very Easy To Recruit				Very Difficult To Recruit		Fewer	Same	More
			<i>Please circle the appropriate value</i>								
CNAs	<input type="checkbox"/>	<input type="checkbox"/>	1	2	3	4	5	_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
LPNs	<input type="checkbox"/>	<input type="checkbox"/>	1	2	3	4	5	_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Graduate Nurses	<input type="checkbox"/>	<input type="checkbox"/>	1	2	3	4	5	_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Experienced RNs for:											
Adult Critical Care	<input type="checkbox"/>	<input type="checkbox"/>	1	2	3	4	5	_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ambulatory care clinics	<input type="checkbox"/>	<input type="checkbox"/>	1	2	3	4	5	_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cardiac Cath Lab/special services	<input type="checkbox"/>	<input type="checkbox"/>	1	2	3	4	5	_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Dialysis	<input type="checkbox"/>	<input type="checkbox"/>	1	2	3	4	5	_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Emergency Department	<input type="checkbox"/>	<input type="checkbox"/>	1	2	3	4	5	_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Home-health care	<input type="checkbox"/>	<input type="checkbox"/>	1	2	3	4	5	_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Labor & Delivery/Postpartum care	<input type="checkbox"/>	<input type="checkbox"/>	1	2	3	4	5	_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Long-term care	<input type="checkbox"/>	<input type="checkbox"/>	1	2	3	4	5	_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Med-Surg/Telemetry	<input type="checkbox"/>	<input type="checkbox"/>	1	2	3	4	5	_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Neonatal Critical Care	<input type="checkbox"/>	<input type="checkbox"/>	1	2	3	4	5	_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Oncology	<input type="checkbox"/>	<input type="checkbox"/>	1	2	3	4	5	_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Operating Room	<input type="checkbox"/>	<input type="checkbox"/>	1	2	3	4	5	_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Pediatrics	<input type="checkbox"/>	<input type="checkbox"/>	1	2	3	4	5	_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Pediatric Critical Care	<input type="checkbox"/>	<input type="checkbox"/>	1	2	3	4	5	_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Pre- and Post-op care	<input type="checkbox"/>	<input type="checkbox"/>	1	2	3	4	5	_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Rehabilitation	<input type="checkbox"/>	<input type="checkbox"/>	1	2	3	4	5	_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Case Managers/Discharge planners	<input type="checkbox"/>	<input type="checkbox"/>	1	2	3	4	5	_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
In-service Educators	<input type="checkbox"/>	<input type="checkbox"/>	1	2	3	4	5	_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
MSN-prepared Clinical Nurse Spec.	<input type="checkbox"/>	<input type="checkbox"/>	1	2	3	4	5	_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Nurse Administrators	<input type="checkbox"/>	<input type="checkbox"/>	1	2	3	4	5	_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Nurse Anesthetists	<input type="checkbox"/>	<input type="checkbox"/>	1	2	3	4	5	_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Nurse Midwives	<input type="checkbox"/>	<input type="checkbox"/>	1	2	3	4	5	_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Nurse Practitioners (all types)	<input type="checkbox"/>	<input type="checkbox"/>	1	2	3	4	5	_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Quality and Infection Control	<input type="checkbox"/>	<input type="checkbox"/>	1	2	3	4	5	_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Unit-level Nurse Managers	<input type="checkbox"/>	<input type="checkbox"/>	1	2	3	4	5	_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other: _____	<input type="checkbox"/>	<input type="checkbox"/>	1	2	3	4	5	_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

6. Please report your experience in the past year in finding and recruiting these Allied Health roles:

	Do not employ	Did not Hire in Past Year	A Recruitment difficulty					B Average number of days it has taken to fill these positions in the past year	C Over the next 2 years, will your organization need fewer, more or about the same number of this type of nursing personnel? <i>Please check the appropriate boxes</i>		
			Very Easy To Recruit				Very Difficult To Recruit		Fewer	Same	More
			<i>Please circle the appropriate value</i>								
CT Technologist	<input type="checkbox"/>	<input type="checkbox"/>	1	2	3	4	5	_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Diagnostic Radiology Technologist/Radiographer	<input type="checkbox"/>	<input type="checkbox"/>	1	2	3	4	5	_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
MRI Technologist	<input type="checkbox"/>	<input type="checkbox"/>	1	2	3	4	5	_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Mammography Technologist	<input type="checkbox"/>	<input type="checkbox"/>	1	2	3	4	5	_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Medical Laboratory Technologist	<input type="checkbox"/>	<input type="checkbox"/>	1	2	3	4	5	_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Occupational Therapist	<input type="checkbox"/>	<input type="checkbox"/>	1	2	3	4	5	_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Occupational Therapist Assistant	<input type="checkbox"/>	<input type="checkbox"/>	1	2	3	4	5	_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Operating Room/Surgical Technologist	<input type="checkbox"/>	<input type="checkbox"/>	1	2	3	4	5	_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Pharmacist, Staff	<input type="checkbox"/>	<input type="checkbox"/>	1	2	3	4	5	_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Pharmacy Technician	<input type="checkbox"/>	<input type="checkbox"/>	1	2	3	4	5	_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Physical Therapist	<input type="checkbox"/>	<input type="checkbox"/>	1	2	3	4	5	_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Physical Therapist Assistant	<input type="checkbox"/>	<input type="checkbox"/>	1	2	3	4	5	_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Radiation Therapy Technologist	<input type="checkbox"/>	<input type="checkbox"/>	1	2	3	4	5	_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Respiratory Therapist	<input type="checkbox"/>	<input type="checkbox"/>	1	2	3	4	5	_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ultrasound Technologist/Sonographer General and Obstetrics	<input type="checkbox"/>	<input type="checkbox"/>	1	2	3	4	5	_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Vascular Technologist	<input type="checkbox"/>	<input type="checkbox"/>	1	2	3	4	5	_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other: _____	<input type="checkbox"/>	<input type="checkbox"/>	1	2	3	4	5	_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

This survey is the first conducted by Partners for a Healthy Community and we would appreciate your comments on how we can make this survey better for our community workforce planning.

Comments: _____

THANK YOU FOR TAKING THE TIME TO COMPLETE THIS SURVEY!