

# The 2009 Demand and Future Needs for Respiratory Therapists in Ohio Hospitals



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# The Current Demand and Future Needs for Respiratory Therapists in Ohio Hospitals

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## Introduction

With reports of hospital staffing shortages diminishing, the Ohio Respiratory Care Board has become interested in the current demand for respiratory therapy clinical staff in Ohio hospitals and in future projections for staff. This report includes information obtained from managers and directors of respiratory care departments in Ohio hospitals regarding budgeted full time equivalent (FTE) staff therapist positions, filled, vacant, and projected positions, and future staffing needs.

The following report summarizes the findings of a survey conducted by the Ohio Respiratory Care Board in June, 2009. The data presented are intended to be considered with the educational program outcome data contained in the January, 2010 report, “The Geographic Distribution of Graduate Respiratory Therapists in Ohio and Educational Program Outcomes - 2009.”<sup>1</sup> Taken together, these data may provide professional leaders with an overview of the respiratory therapist staffing supply and demand of Ohio hospitals statewide and locally. Additionally, this report also includes data on “needs assessment-based respiratory care” and future practitioner-level practice.

## Methods

The Board adopted a 24 item on-line questionnaire and invited 171 hospital-based directors and managers of respiratory care departments in Ohio via e-mail to complete the survey during May-June, 2009. A copy of the questionnaire is appended to this report. Responses were collected using Survey Monkey<sup>®</sup>, downloaded to a computerized statistical spreadsheet, Statistical Package for the Social Sciences (SPSS<sup>®</sup> v 17.0). Descriptive statistics were calculated for statewide and for each OSRC district as defined by the Bylaws of the Ohio Society for Respiratory Care (OSRC).<sup>2</sup> Vacancy rate was calculated as number vacant divided by number budgeted; turnover rate was calculated as additional vacancies divided by the number budgeted staff FTE.

## Results

### Statewide Demand

There were 100 respondents to the hospital manager survey; 7 managers reported on more than 1 hospital department; the response rate was 58%. Table 1 describes hospital locations and types for the 100 respondents. Location of hospitals within OSRC districts, county types and hospital types were represented among the respondents.

Table 1.

OSRC Districts			County Type			Hospital Type		
	n	%		n	%		n	%
Central	30	30.0	Metropolitan	34	34.0	Teaching	14	14.0
Eastern	13	13.0	Rural	66	66.0	Community	78	78.0
Northeastern	20	20.0				Children's	6	6.0
Northwestern	19	19.0				Non-Acute	2	2.0
Southern	7	7.0						
Western	11	11.0						

The numbers of budgeted, filled, vacant, and projected staff FTEs are presented in table 2. The staff vacancy rate was reported as 3.2% statewide, 6.3% in the northeastern district and nearly zero in the northwestern district. Projected additional staff FTE vacancies represent turnover rates of 2.5% for 6 months and 3.3% annually for the next 3 years. Fifteen percent of staff therapists statewide could retire due to age in the next 10 years, as low as 11% in the eastern district and as high as 17% in the northeastern district.

Table 2.

Ohio RT Staffing Data (n= 100)						
	Number Budgeted Staff FTE	Number Filled Staff FTE	Number Vacant Staff FTE (%)	Projected Additional Staff FTE vacancies in 6 months	Projected Additional Staff FTE vacancies in 3 yrs	Staff Over 55 years old
Central	480	469	6 (1.2%)	13	53	78
Eastern	296	290	6 (2%)	2	15	32
No. East	632	593	40 (6.3%)	28	75	108
No. West	228	227	1 (0.4%)	2	20	35
Southern	154	151	4 (2.6%)	1	11	21
Western	275	268	9 (3.3%)	5	30	44
Ohio	2065	1998	67 (3.2%)	51 (2.5%)	204 (9.9%)	318 (15%)

Potential causes for a staffing shortage and their relative degree of importance are presented in table 3. Although all causes were selected by more than 50% of the managers surveyed, the most commonly selected causes and those approaching “very important” were “budget restrictions”, “reductions” and “hiring freezes.” Causes selected least often were for quantity and quality of graduate therapists.

Table 3.

<b>Staffing Shortage Causes</b>	<b>Very Important (1)</b>	<b>Somewhat Important (2)</b>	<b>Not Important (3)</b>	<b>Mean Rating</b>
Freeze on hiring (n=73)	37 (50.7 %)	33 (45.2 %)	3 (4.1 %)	1.53
Highly competitive employment area (n=70)	12 (17.1 %)	47 (67.1 %)	11 (15.7 %)	1.99
Facility budget restrictions / reductions (n=73)	39 (53.4 %)	33 (45.2 %)	1 (1.4 %)	1.48
Not enough graduates from local RT programs (n=55)	13 (23.6 %)	27 (49.1 %)	15 (27.3 %)	2.04
Not enough qualified graduates from local RT programs (n=53)	9 (17.0 %)	29 (54.7 %)	15 (28.3 %)	2.11

Projected changes in budgeted staff FTEs in the next 3 years are presented in table 4. Sixty-six (69.5%) respondents project no change in staffing; 22 (23.2%) respondents foresee an increase and 7 (7.3%) foresee a decrease in staffing. Managers projected a net increase of 88 FTE staff therapist positions representing a 4.3% increase in staff in the next 3 years; 75% of the staffing increase is projected for the northeastern district. No managers responded to this question from the southern district.

Table 4.

<b>Changes Foreseen in Budgeted FTE Staffing in the Next 3 years (n=95)</b>			
	Increase FTEs	Decrease FTEs	Net Change
Central	17	3	14
Eastern	7	3	4
North East	66	1	65
North West	7	2	5
Southern	-	-	-
Western	2	2	0
Ohio	99	11	88

Demand: Staff Credentials

The percentage of staff having earned the Registered Respiratory Therapist (RRT) credential averaged 69.9% statewide, but there was much variability among hospital departments, ranging from 10% to 100% RRT staff and a standard deviation of 22.9. Table 5 includes the desirable staff qualifications to meet current needs. The difference between reported percent staff RRT and needed staff RRT was 9.4%. The associate degree was the most popular educational preparation to meet current needs for staff therapists.

Table 5.

NBRC Credential to Meet Current Needs			RT Education to Meet Current Needs		
	n	%		n	%
CRT	18	20.7	Associate	49	56.3
RRT	69	79.3	Bachelor	10	11.5
			Either	28	32.2

In table 6, 40 managers (40.8%) reported the requirement of RRT at either date of hire or within a specified time period. The average time allowed to become RRT after the date of hire was 13.2 months and up to 36 months.

Table 6.

Required To Become RRT (n = 98)			Months To Become RRT (n = 40)			
	n	%	Min	Max	Mean	Std. Dev.
Yes	40	40.8	0	36	13.2	8.0
No	58	59.2				

Seventy-nine (81%) managers reported that their staff provided respiratory care via "assessment-based care" which was also defined as "clinical protocols" and as physician-approved, predetermined, standardized patient care plans based upon individual patient assessments, customized treatment plans, and re-assessments. All hospital departments which provide "assessment-based care" allow licensed therapists with RRT credentials to perform clinical protocols; 62% also allow licensed therapists with Certified Respiratory Therapist (CRT) credentials. Only 6% of hospitals allow limited permit holders to engage in "assessment-based

care.” Although the types of limited permits were not defined in the survey; they are likely employment-based permit holders (L2 permits). (See table 7.).

Table 7.

<b>Staff Allowed to Provide Respiratory Care by "Assessment-Based Care" (N = 97)</b>		
	n	%
RRT only	13	13.0
CRT	60	62.0
Limit Permit	6	6.0
Not Applicable	18	19.0

### Manager Projections

Table 8 provides managers foresight for changes in minimum hiring standards. Forty (41%) managers reported to foresee increases in minimum hiring standards in 5 years with 33 (84.6%) specifying RRT and only 5 (16.7%) specifying a bachelor’s degree in respiratory therapy as a minimum hiring standard.

Table 8.

<b>Foresee Increase Minimum Hiring Standards in 5 Years (n = 98)</b>			<b>Foresee Minimum RRT in 5 Years (n = 39)</b>			<b>Foresee Minimum BSRT in 5 Years (n = 30)</b>		
	n	%		n	%		n	%
Yes	40	40.8	Yes	33	84.6	Yes	5	16.7
No	52	53.1	No	6	15.4	No	25	83.3
No Opinion	6	6.1						

Table 9 provides managers’ foresight for “practitioner-level” advanced respiratory therapists with the authority and privileges under Ohio law similar to nurse practitioners or physician’s assistants. Thirty-nine (49%) managers reported to foresee need for a “practitioner-level” advanced respiratory therapist at their hospital in the future; whereas, 41 do not foresee a need. Twenty expressed no opinion or did not answer the question. The need is distributed throughout all districts, hospital locations and types with rural and community hospitals predominantly in the central and northwest districts.

Table 9.

<b>Foresee Need for “Practitioner-Level” Advanced Respiratory Therapist (n = 87)</b>						
		Hospital County		Hospital Type		
	n	Metropolitan	Rural	Teaching	Community	Children’s
Central	11	3	8	2	7	1
Eastern	5	1	4	1	4	0
No. East	5	4	1	0	4	1
No. West	8	1	7	0	8	0
Southern	5	2	3	1	4	0
Western	5	2	3	2	3	0
Ohio	39	13	26	6	30	2

### Discussion

This survey was conducted in May-June, 2009, at a time of economic uncertainty for Ohio and Ohio hospitals and at a time associated with graduation from the majority of respiratory therapy educational programs. Although 100 managers responded, the sample was one “of convenience” and may not truly represent all 171 managers identified in our manager database who received the questionnaire. Extrapolations from the 58% response rate to the population of all hospital managers should be viewed with skepticism.

In 2007 the Ohio Hospital Association reported a 12.5% vacancy rate for respiratory therapists in Ohio hospitals, a vacancy rate higher than that of nurses.<sup>3</sup> With a statewide staff vacancy rate of 3.2%, the results of this survey do support rumors of diminished hospital staffing shortages and are slightly less than the 4.4% projected nationwide by the American Association for Respiratory Care (AARC).<sup>4</sup> The most significant causes of reported staffing shortages were economic, such as hiring freezes, competition, and budget restrictions which may have been imposed due to the economic conditions at the time of the survey. That a shortage may be less related to the quantity and quality of new graduate therapists is a positive finding for the respiratory therapy educational programs in Ohio.

Identifying 67 vacant staff positions in 100 hospitals might extrapolate to approximately 115 vacancies statewide. The recent hiring of new graduates in May-June 2009 may explain a lower staff vacancy rate. Projected turnover rates of 2.5% - 3.3% for 3 months to 3 years are consistent with the 3.2% vacancy rate, indicating some staffing stability. Identifying 88 new FTEs in 100 hospitals in the next 3 years might extrapolate to 152 new positions statewide, a projected 7.3% increase in respiratory therapy staff. Identifying 318 staff older than 55 years

indicates an aging workforce which might extrapolate to 548 therapists who might retire in the next 10 years.

The results of this survey reinforced the importance of earning the RRT credential with 79% of managers indicating the RRT as meeting current staffing needs. The RRT credential is currently required in 40% of Ohio hospitals; this result is consistent with the AARC for the country which estimated 34.1 – 45.3% of hospitals requiring RRT.<sup>4</sup> Based upon current and future projections, minimum hiring standards at as many as 73% of Ohio hospitals may include the RRT credential.

The prevalence of providing respiratory therapy using "assessment-based care" and the distribution of respiratory care professionals who work under "clinical protocols" may be a first statewide glimpse of changes that have occurred in clinical practice in Ohio in recent years. The 81% of Ohio managers reporting that their staff provided respiratory care via "assessment-based care" is more prevalent than the 60% reported by the AARC for the country.<sup>4</sup> That 79% of managers indicate the RRT credential meets their current staffing needs may be related to 81% of managers reporting "assessment-based care." The need for advanced "practitioner-level" respiratory therapists with the authority and privileges under Ohio law similar to nurse practitioners or physician's assistants may foresee future changes in clinical practice.

An annual survey of Ohio hospital respiratory therapy department managers with a higher response rate would enlighten the Board on these matters and other changes in professional practice.

## References

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1. Douce FH. The Geographic Distribution of Graduate Respiratory Therapists in Ohio and Educational Program Outcomes - 2009. The Ohio Respiratory Care Board. 2010.
2. Ohio Society for Respiratory Care. Bylaws of the Ohio Society for Respiratory Care. 2005; <http://www.osrc.org/pdfs/bylaws.pdf>
3. Ohio Hospital Association. Hospital Workforce Shortage. Ohio Hospital Association. 2007. <http://www.ohanet.org/workforce/FAQ.asp#shortage>
4. Shaw RC, Traynor CP, Benavente JL. 2009 AARC Human Resource Survey of Acute Care Hospital Employers. American Association for Respiratory Care. 2009.

# OHIO RESPIRATORY CARE BOARD

## Respiratory Therapist Staff Needs Assessment

Please help the Ohio Respiratory Care Board assess the Respiratory Therapist staffing needs of Ohio's health care facilities and answer these questions.

1. Using the following list of Ohio counties, in which OSRC district is your facility located?

Central District: Athens, Belmont, Coshocton, Delaware, Fairfield, Fayette, Franklin, Gallia, Guernsey, Hocking, Jackson, Knox, Lawrence, Licking, Madison, Marion, Morrow, Muskingum, Pickaway, Pike, Richland, Scioto, Union, Washington

Eastern District: Ashland, Carroll, Columbiana, Harrison, Holmes, Jefferson, Mahoning, Portage, Stark, Summit, Trumbull, Tuscarawas, Wayne

Northeastern District: Ashtabula, Cuyahoga, Geauga, Lake, Lorain, Medina

Northwestern District: Allen, Auglaize, Crawford, Defiance, Erie, Fulton, Hancock, Hardin, Henry, Huron, Lucas, Mercer, Ottawa, Paulding, Sandusky, Seneca, Van Wert, Williams, Wood, Wyandot

Southern District: Adams, Brown, Butler, Clermont, Hamilton, Highland.

Western District: Champaign, Clark, Clinton, Darke, Green, Logan, Miami, Montgomery, Shelby.

2. Is your facility located in one of these counties: Franklin, Summit, Mahoning, Lucas, Montgomery, Lorain, Clark, Cuyahoga, or Hamilton?

Yes

No

3. What type of facility best describes yours?

Teaching Hospital

Community Hospital

Children's Hospital

Non-Acute Care Facility

Long Term Acute Care Facility

Other (please specify)

4. With how many respiratory care educational programs within the state of Ohio does your facility affiliate for student clinical education, experience, and training?

1. How many budgeted FTE clinical respiratory care staff positions are in your facility?

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2. How many budgeted FTE clinical respiratory care staff positions are currently filled?

3. How many budgeted FTE respiratory care staff positions are currently vacant?

4. How many additional FTE respiratory care staff vacancies do you expect in the next 6 months?

5. How many additional FTE respiratory care staff vacancies do you expect in the next 3 years?

6. How many respiratory care staff at your facility are over 55 years old?

7. Do you foresee any changes in your budgeted FTE respiratory care staffing needs in the next 3 years?

Yes

No

1. What changes in your budgeted FTE respiratory care staff needs do you foresee?

Increasing FTEs

Decreasing FTEs

2. How many FTEs do you foresee to be affected in the next 3 years?

1. Which credential best meets your current needs for respiratory care staff?

	CRT	RRT
Credential	<input type="checkbox"/>	<input type="checkbox"/>

2. Which respiratory therapy educational preparation best meets your current needs for respiratory care staff?

	2 year Associate	4 year Baccalaureate	No preference	No opinion
Professional education level	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3. What percentage of your clinical respiratory care staff are Registered Respiratory Therapists (RRT)?

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4. If you hire a licensed CRT or limited permit holder, do you require them to become a RRT within a certain period of time as a condition of continued employment?

- Yes
- No
- Not Applicable

1. In how many months do you expect new staff to earn RRT?

1. If you currently hire licensed CRT or limited permit holders, in the next 5 years do you foresee your required minimum hiring qualifications for respiratory care staff increasing?

- Yes
- No
- Not applicable

1. In the next 5 years, what do you foresee as your minimum hiring qualifications?

	Yes	No
Bachelor's degree	<input type="radio"/>	<input type="radio"/>
RRT	<input type="radio"/>	<input type="radio"/>
Other (please specify)	<input type="text"/>	

1. In your facility, who do you allow to provide respiratory care by "assessment-based care" (aka "clinical protocols" ie. physician-approved, predetermined, standardized patient care plans based upon individual patient assessments, customized treatment plans, and re-assessments)?

- Licensed RRTs
- Licensed CRTs
- Limited permit holders
- Not applicable

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2. In your facility, do you foresee a need in the future for a practitioner-level advanced Respiratory Therapist, with the authority and privileges under Ohio law similar to a Registered / Certified Nurse Practitioner or Physician's Assistant ?

Yes

No

No opinion

3. Comments on #22:

4. If you are currently facing a staffing shortage or foresee a staffing shortage, please rank the following as potential causes with their importance.

	Very Important	Somewhat Important	Not Important	N/A
Freeze on hiring	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Highly competitive employment area	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Facility budget restrictions / reductions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Not enough graduates from local RT programs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Not enough qualified graduates from local RT programs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Other (please specify)

Thank you for helping the Ohio Respiratory Care Board assess the current and future respiratory therapist staffing needs. Watch for a report soon on the ORCB website.