

# Minnesota's Respiratory Therapist Workforce, 2016

HIGHLIGHTS FROM THE 2016 RESPIRATORY THERAPIST SURVEY

# Table of Contents

Minnesota’s Respiratory Therapist Workforce, 2016 .....	3
Overall .....	3
Demographics .....	3
Education .....	5
Employment, Hours and Future Plans .....	6
Respiratory Therapists at Work .....	7
Geographic Distribution.....	11

# Minnesota’s Respiratory Therapist Workforce, 2016

## HIGHLIGHTS FROM THE 2016 RESPIRATORY THERAPIST SURVEY<sup>i</sup>

### Overall

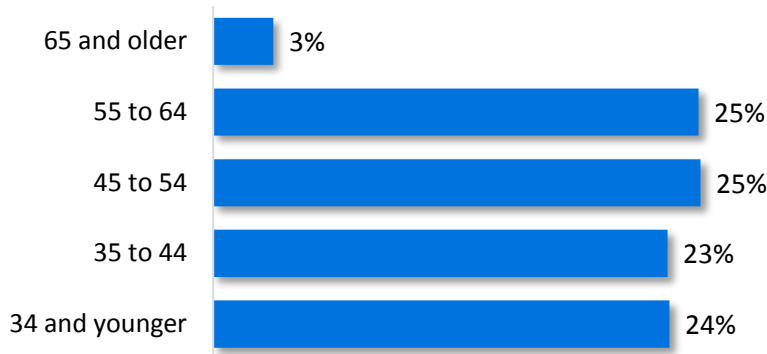
Respiratory therapists (RTs) are health care professionals who care for patients who have trouble breathing—for example, from a chronic respiratory disease, such as asthma or emphysema. Their patients range from premature infants with undeveloped lungs to elderly patients who have diseased lungs. They also provide emergency care to patients suffering from heart attacks, drowning or shock.<sup>ii</sup> According to the Minnesota Board of Medical Practice, there were **1,867** respiratory therapists with active licenses in Minnesota as of July, 2016.<sup>iii</sup>

### Demographics

**Sex.** With a few exceptions, health care professions are predominantly female, and this is true for the field of respiratory therapy. Approximately 65 percent of Minnesota RTs are female. The profession is likely to become increasingly female, as the newest cohort of RTs to enter the profession—those age 34 and younger—is 74 percent female.

**Age.** Respiratory therapists are evenly distributed in age, with nearly equal shares in their mid-thirties to mid-sixties. As older RTs retire, young professionals enter the field in equal numbers. The median age of RTs is 46.

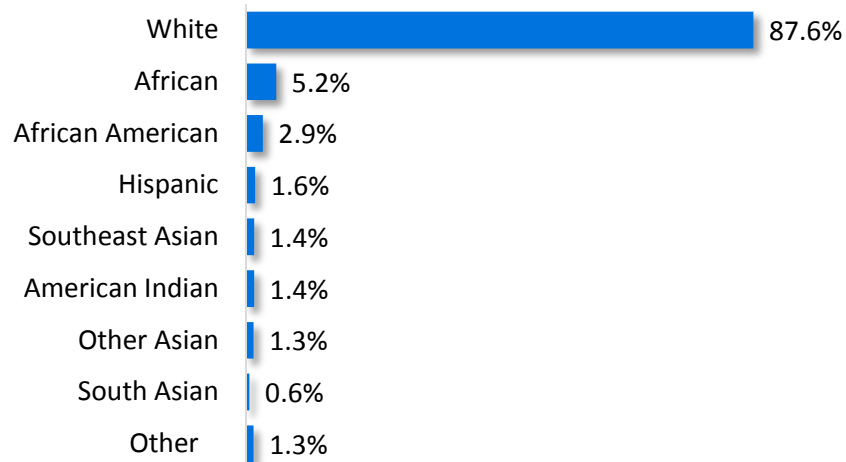
**Age of Minnesota Respiratory Therapists**



*Source: Minnesota Board of Medical Practice, July 2016. Analysis done by MDH. Percentages are based on all 1,867 Minnesota licensed respiratory therapists who provided valid birth dates to the Board.*

**Race and Ethnicity.** Typical of racial patterns among most health care professionals, the majority (87.6 percent) of RTs indicated they were white. The second most common race identified was African, followed by African American. Though the profession is predominantly white, the relatively high shares of Africans and African Americans make this a slightly more diverse field than most other health care Minnesota professions with similar levels of training, such as mental health counseling or nursing.

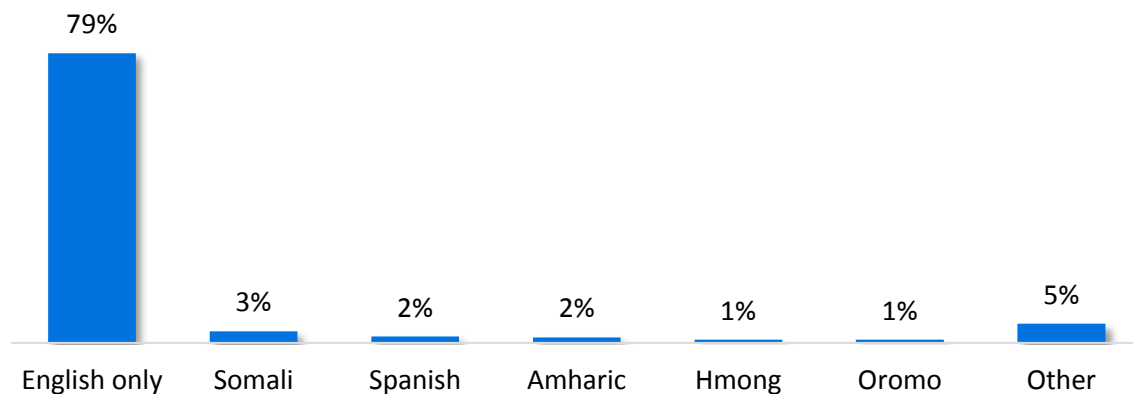
**Race of Minnesota Respiratory Therapists**



Source: MDH Respiratory Therapist Workforce Questionnaire, 2016. Respondents could select as many races as applicable.

**Languages Spoken in Practice.** The majority of respiratory therapists—79 percent—spoke only English in their practices. (Note: The survey directed respondents not to include languages strictly spoken through an interpreter.) However, consistent with the slightly higher share of Africans in this profession, the African languages of Somali, Amharic, and Oromo were among the more common foreign languages reported. Five percent of RTs reported speaking a language other than something listed below; the most common of these were Russian, Arabic, French, Swahili, Hindi and Sign Language.

**Languages Spoken by Minnesota Respiratory Therapists in their Practices**

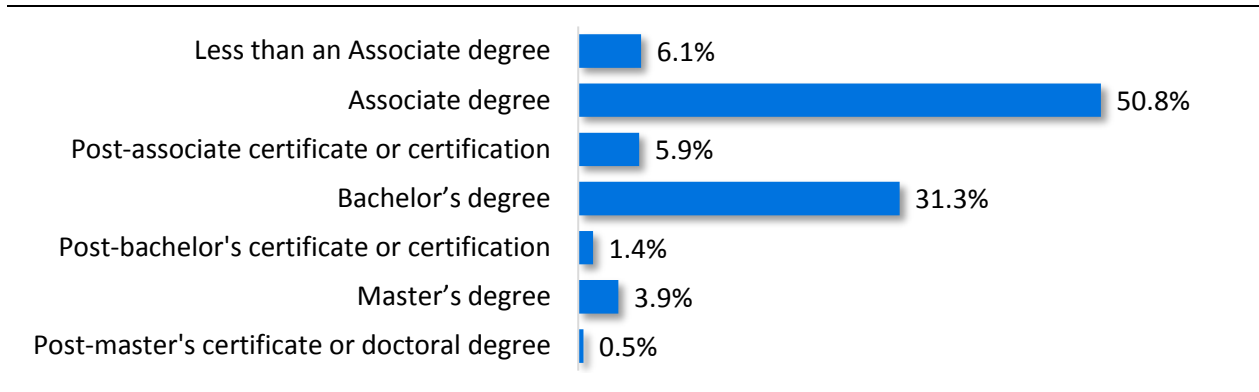


Source: MDH Respiratory Therapist Workforce Questionnaire, 2016. Respondents could select as many languages as applicable.

## Education

**Educational Attainment.** Respiratory therapists in Minnesota have widely varied levels of education. Minnesota licensure requirements specify that RTs must successfully complete a respiratory therapy program accredited by one of four respiratory therapy accrediting bodies,<sup>iv</sup> but there is currently no requirement on the minimum level of education. Educational attainment for these professionals ranges from less than an associate degree to a doctoral degree, with the bulk of RTs having earned either an associate or bachelor’s degree. When asked how likely they were to pursue additional training or credentials to advance in their field, just under 20 percent of RTs said they were “very likely” to enroll (15.5 percent) or “currently enrolled” (4.2 percent) in a training program.

### Educational Attainment of Respiratory Therapists



Source: MDH Respiratory Therapist Workforce Questionnaire, 2016. Percentages are based on 1,532 valid survey responses.

**Minnesota Respiratory Therapy Graduates.** According to survey responses, the majority of RTs earned their degrees in either Minnesota (69 percent) or one of the four states bordering Minnesota—Iowa, North Dakota, South Dakota, or Wisconsin (17 percent total from these states). As shown in the table below, Minnesota has five accredited RT programs in four regions of the state, producing a combined total of 78 new graduates in 2014, the most recent year for which data is available.

### Respiratory Therapy Program Graduates, by Year

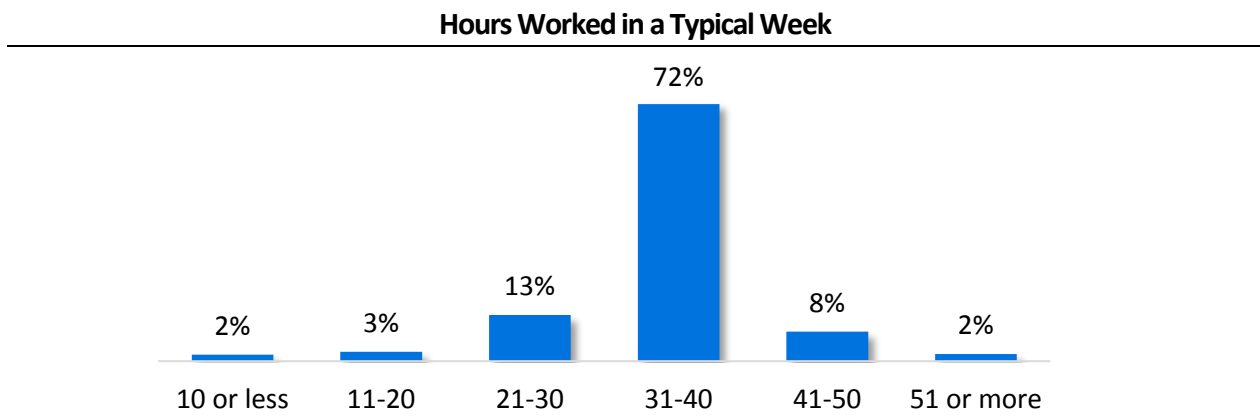
Region	Institution	2012	2013	2014
Arrowhead	Lake Superior College (2-year)	26	17	19
West Central	Northland Community and Technical College (2-year)	23	13	12
Twin Cities	Saint Catherine University (4-year)	17	16	13
Twin Cities	Saint Paul College (2-year)	16	19	21
Southeast	University of Minnesota / Mayo School of Health Sciences (Bachelor's degree)	5	0	13
Total		85	65	78

Source: LMIWise.org, citing National Center of Education Statistics.

## Employment, Hours and Future Plans

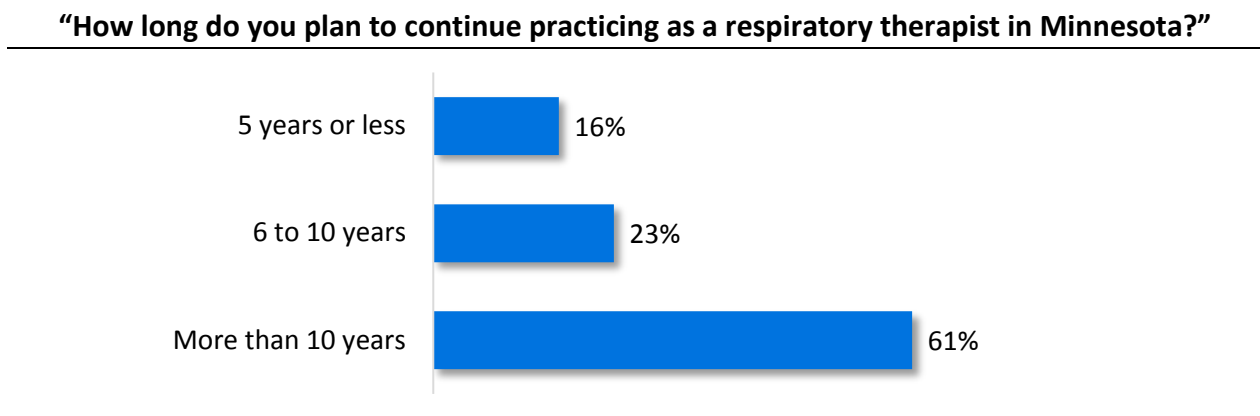
**Share of Respiratory Therapists Employed.** An estimated **97.1 percent** of Minnesota licensed respiratory therapists reported on the MDH questionnaire that they were “working in a paid or unpaid position related to [their] license.” Of the less than three percent who were *not* working as a respiratory therapist, nearly half indicated they were seeking a position in respiratory therapy.

**Hours Worked.** The median work week for respiratory therapists was 36 hours, and just over three-fourths of RTs indicated they worked a full-time schedule. As the chart below shows, a substantial majority worked between 31 and 40 hours per week.



Source: MDH Respiratory Therapist Workforce Questionnaire, 2016. The chart is based on 1,731 survey responses.

**Future Plans.** Just 16 percent of respiratory therapists practicing in Minnesota indicated that they planned to leave the field within five years, whereas 61 percent indicated that they planned to continue practicing in Minnesota for more than 10 years. Among the 16 percent planning to leave within 5 years, the majority (nearly three-fourths) indicated they planned to retire. Just under four percent planned to leave the field of respiratory therapy due to burnout or dissatisfaction.



Source: MDH Respiratory Therapy Workforce Questionnaire, 2016. The chart is based on 1,731 responses.

## Respiratory Therapists at Work

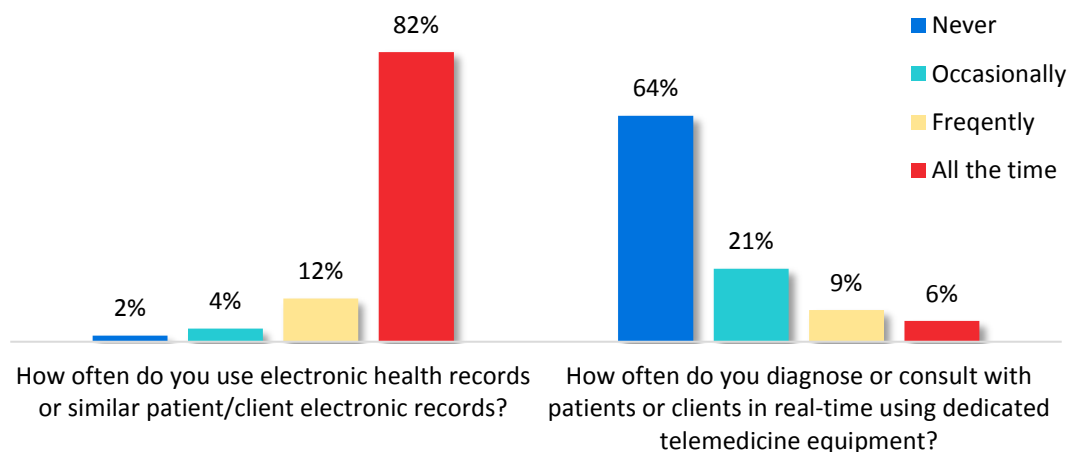
**Work Settings.** The questionnaire asked respiratory therapists to identify their primary work setting.<sup>v</sup> The top three setting types for RTs were hospitals (70.4 percent); clinics and professional offices (11.6 percent); and home health care (9.1 percent).

### Respiratory Therapists' Work Settings

Setting	Share of RTs Working in this Setting
Hospital	70.4%
Clinic/Professional Office/Health Center/Ambulatory Care	11.6%
Home Health Care	9.1%
Academic (Teaching/Research)	2.7%
Long-Term Care Facility	1.7%
Community/Faith-Based Organization	0.3%
School (K-12)	0.2%
State, County, or City Agency	0.2%
Insurance/Benefits Management Organization	0.1%
Other	3.0%

Source: MDH Respiratory Therapist Workforce Questionnaire, 2016. The chart is based on 1,495 survey responses.

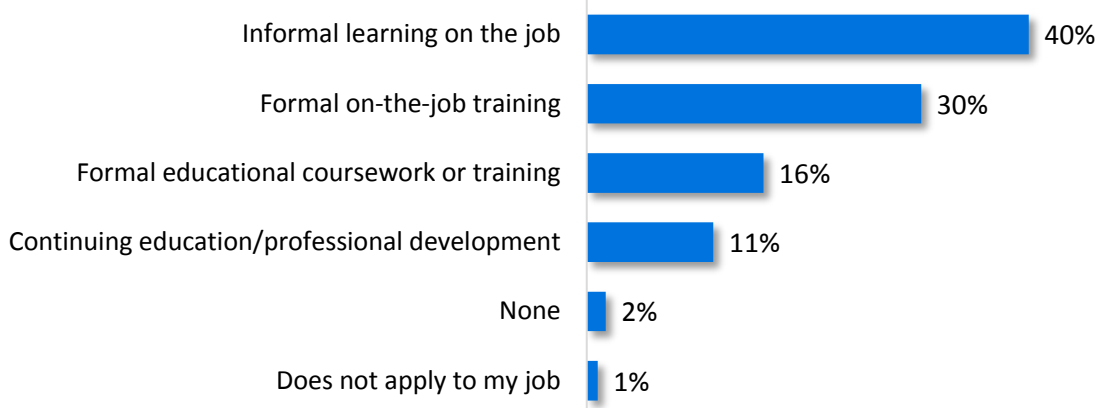
**Technology at Work: The Use of EHRs and Telemedicine Equipment.** The 2016 questionnaire included items about the use of both electronic health records and dedicated telemedicine equipment. The results showed that the vast majority of RTs use EHRs “all the time,” but most RTs do not use telehealth equipment regularly.



Source: MDH Respiratory Therapist Workforce Questionnaire, 2016. The charts are based on 1,678 survey responses.

**Teamwork.** Health care providers increasingly work in multidisciplinary teams, prompting educators and health policymakers to ask how best to train providers to communicate and coordinate across professions. MDH included a question on its 2016 survey to shed light on these concerns. As shown below, 70 percent of respiratory therapists reported that learning on the job (either informal or formal) best prepared them to work in multidisciplinary teams.

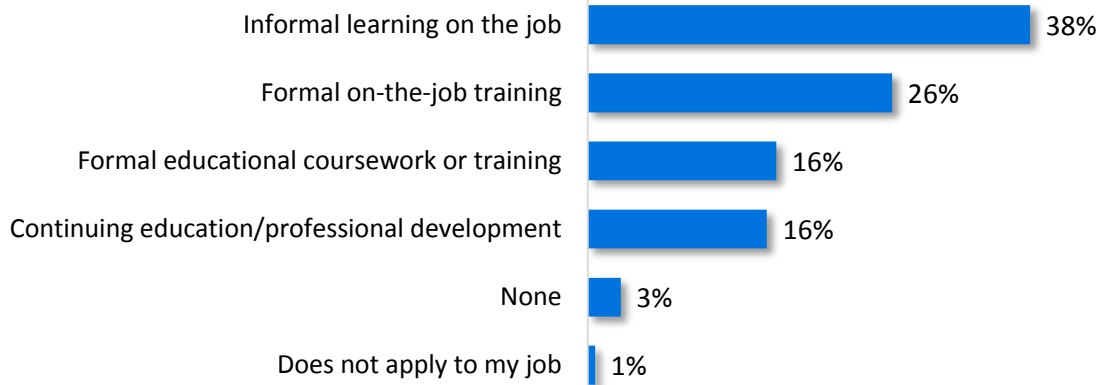
**“Which of the following work or educational experiences best prepared you to work in a multidisciplinary team when providing care?”**



Source: MDH Respiratory Therapist Workforce Questionnaire, 2016. The chart is based on 1,567 survey responses.

**Cultural Competence.** Minnesota health care professionals must navigate diverse racial, ethnic, and cultural norms in their work. This, too, raises questions about the best way to prepare the health care workforce to provide “culturally competent” care. As shown below, RTs again most commonly indicated that formal or informal learning *on the job* (as opposed to training or education) provided the best preparation for working with diverse groups of patients.

**“Which of the following work or educational experiences best prepared you to provide culturally competent care?”**

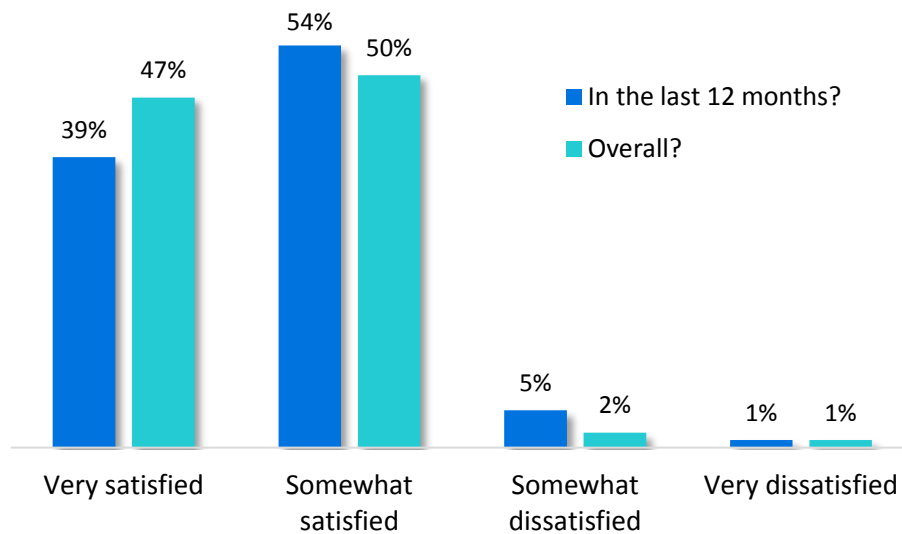


Source: MDH Respiratory Therapist Workforce Questionnaire, 2016. The chart is based on 1,567 survey responses.



**Work and Career Satisfaction.** The 2016 survey included questions on career satisfaction in the past year and overall. As shown below, the majority of respiratory therapists indicated that they were either “satisfied” or “very satisfied,” both in the past year and overall. RTs were slightly more likely to report being very satisfied with their career overall compared to the past year—a trend typical among health care professionals for which work satisfaction data is available. This might reflect a true dampening of satisfaction brought on by changes in health care that affect providers, such as dealing with insurance, billing, and other types of paperwork. However, it could also reflect the difference in satisfaction one feels about a specific job versus an overall career choice.

“How satisfied have you been with your career...”



Source: MDH Respiratory Therapy Workforce Questionnaire, 2016. The chart is based on 1,581 responses.

The survey also asked respiratory therapists to describe their greatest sources of professional satisfaction and dissatisfaction. The most common responses are summarized below.<sup>vi</sup> The single most commonly mentioned source of satisfaction was the ability to care for patients and make a difference in their lives. Hundreds of respiratory therapists reported how important it was to them to provide direct care, many noting the importance of providing high-quality care and seeing patients’ lives improve as a result of their work. A number of RTs mentioned how satisfying it was to see patients who had entered their care in critical condition be able to walk out of the hospital. Other respiratory therapists noted that they derived a great deal of satisfaction from being a valued part of a health care team, or working with excellent co-workers.

Regarding professional dissatisfaction, many RTs said “None,” or “N/A,” indicating they did not have (or did not wish to name) any sources of dissatisfaction. Of those who did, however, the most common response was staffing. Many RTs noted how difficult it was to work in conditions where there are not enough staff to share the workload and/or where their patient load is too high. Another common source of dissatisfaction was the lack of respect and appreciation for respiratory therapy as a profession. Some felt other health care providers or patients did not understand the role of respiratory therapists, confusing them with nursing staff. Many RTs also noted the challenges of dealing with insurance

companies, and the frustration of having to work with an insurance coding and billing system that they perceived to interfere with patient-centered care.

**Summarized responses to the question “What is the greatest source of your professional satisfaction?”**

- *“Caring for patients” / “Direct patient care” / “Seeing patients recover and have a high quality of life” / “Making a difference in people’s lives” / “Working with patients and their families” / “Helping patients be able to stay in their own homes, keeping them out of the hospital”*
- *“Educating patients on lifestyle changes.”*
- *“Training or mentoring other staff” / “Teaching students in respiratory care.”*
- *“Being a respected part of a team” / “Physicians who appreciate my skills and knowledge.”*
- *“Having great coworkers / “Working in a team environment that values patients.”*
- *“Learning new things.”*
- *“Being able to work independently.”*

**Summarized responses to the question “What is the greatest source of your professional dissatisfaction?”**

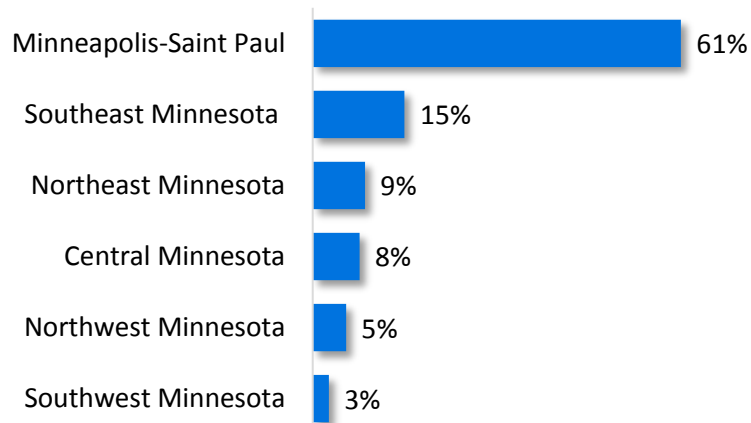
- *The workload is increasing without increased staffing” / “Being short-staffed” / “Being stretched too thin” / “Not enough time with patients” / “High patient-to-therapist ratios”*
- *“We are disrespected compared to RNs” / “We’re confused with RNs” / “It’s frustrating seeing RNs do work that RTs should be doing.”*
- *“Lack of awareness or appreciation for what RTs do.”*
- *“Poor management.” / “Management focuses on productivity and not patient care.”*
- *“Administrative work keeps me away from caring for patients.” / “I have to choose between paperwork and treating patients.”*
- *“Long work hours and low pay (especially compared to RNs).”*
- *“Issues with coworkers” / “Unprofessional coworkers”*
- *“Insurance constraints” / “Insurance coding” / “Reimbursement”*

## Geographic Distribution

To understand accessibility of respiratory therapy services around the state, the next two charts provide two different views of the geographic distribution of RTs. These analyses are based on geocoded practice addresses supplied to the Board of Medical Practice by RTs when they renew their licenses.<sup>vii</sup>

**Distribution by Region.** The first chart shows the distribution of RTs across the six planning areas around Minnesota. As shown, slightly over half of all RTs work in the Twin Cities metro area, with another 15 percent in the Southeast region, reflecting the substantial pull of the Mayo Clinic in Rochester. The remainder of the state is home to significantly smaller shares of respiratory therapists. For reference, the Twin Cities metro area is home to approximately 54 percent of the state’s population, with all other regions housing between 7 and 13 percent. This suggests that the location of respiratory therapists—and therefore the accessibility of their services—is slightly more heavily concentrated in the Twin Cities and Rochester areas compared to the resident population in those areas.

### Respiratory Therapists by Minnesota Region

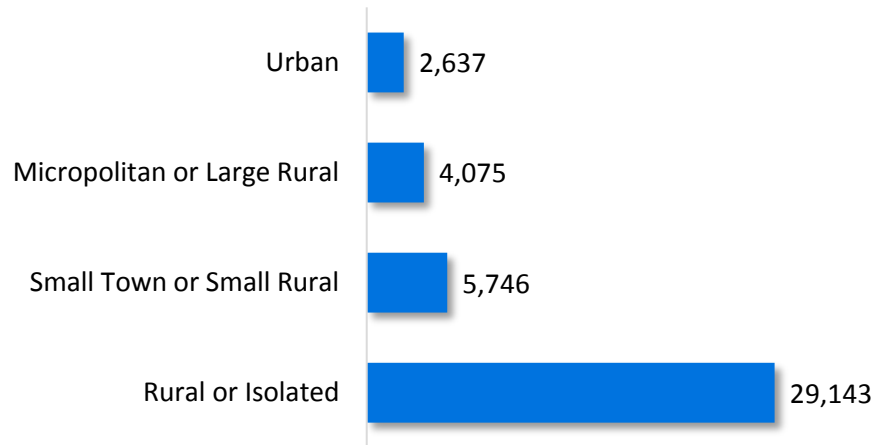


*Source: Minnesota Department of Health (MDH) geocoding and analysis of July, 2016 Minnesota Board of Medical Practice business address data. Percentages above are based on 1,699 valid Minnesota addresses.*

**Distribution across urban and rural areas.** The chart below provides another view of the geographic distribution of respiratory therapists, showing the size of the population for every one RT in urban, large rural, small rural, and isolated rural areas. As shown, there are 2,637 people for every one RT in urban areas of Minnesota, compared to over ten times that in many of the most rural areas of the state. This pattern is typical of other health care professions, and reflects the relative inaccessibility of care in sparsely populated areas of Minnesota.

### Minnesota Population-to-Respiratory Therapist Ratio

---



---

*Source: Minnesota Department of Health (MDH) analysis of November 2015 Minnesota Board of Medical Practice address data. Percentages above are based on 1,699 valid Minnesota addresses.*

Visit our website at <http://www.health.state.mn.us/data/workforce/index.html> to learn about the Minnesota healthcare workforce. County-level data for this profession is available at <http://www.health.state.mn.us/data/workforce/database/index.html>.

Minnesota Department of Health  
Office of Rural Health and Primary Care  
85 East 7<sup>th</sup> Place, Suite 220  
Saint Paul, MN 55117  
(651) 201-3838  
[health.orhpc@state.mn.us](mailto:health.orhpc@state.mn.us)



<sup>i</sup> The Minnesota Department of Health (MDH), in cooperation with the Minnesota Board of Medical Practice, collected information on demographics, education, career and future plans of respiratory therapists during a workforce questionnaire in 2016. Unless noted, all data are based on information collected from that survey. The response rate for the 2016 RT survey was 96 percent.

<sup>ii</sup> Description comes from the Occupational Outlook Handbook (<http://www.bls.gov/ooh/healthcare/respiratory-therapists.htm#tab-2>).

<sup>iii</sup> Of the total licensed professionals, 190 listed a practice address outside of Minnesota, and based on the survey responses we know that 2.9% of the total licensees are not currently working as an RT. Thus, not all actively licensed RTs are part of the Minnesota workforce.

<sup>iv</sup> These are the Commission on Accreditation of Allied Health Education Programs (CAAHEP); the Committee on Accreditation for Respiratory Care (CoARC); the Commission on Allied Health Education and Accreditation (CAHEA), and the Council on Accreditation for Respiratory Therapy Education (Canadian) (CoARTE).

<sup>v</sup> Note that many respiratory therapists (33 percent, in this survey) work in more than one setting. This analysis reports on the location that an RT has designated as “primary.”

<sup>vi</sup> To protect the identity of any single respondent, open-ended comments are shortened and summarized. The bulleted phrases do not summarize all responses, but rather reflect the most common sentiments expressed on the survey.

<sup>vii</sup> Addresses are generally practice locations, but a very small number of respiratory therapists may have reported home addresses. Additionally, approximately one percent of RTs reported an out-of-state practice address to the Board; these professionals may or may not be providing services in Minnesota, but in any case, they could not be geocoded.