

# Minnesota's Licensed Respiratory Therapy (RT) Workforce

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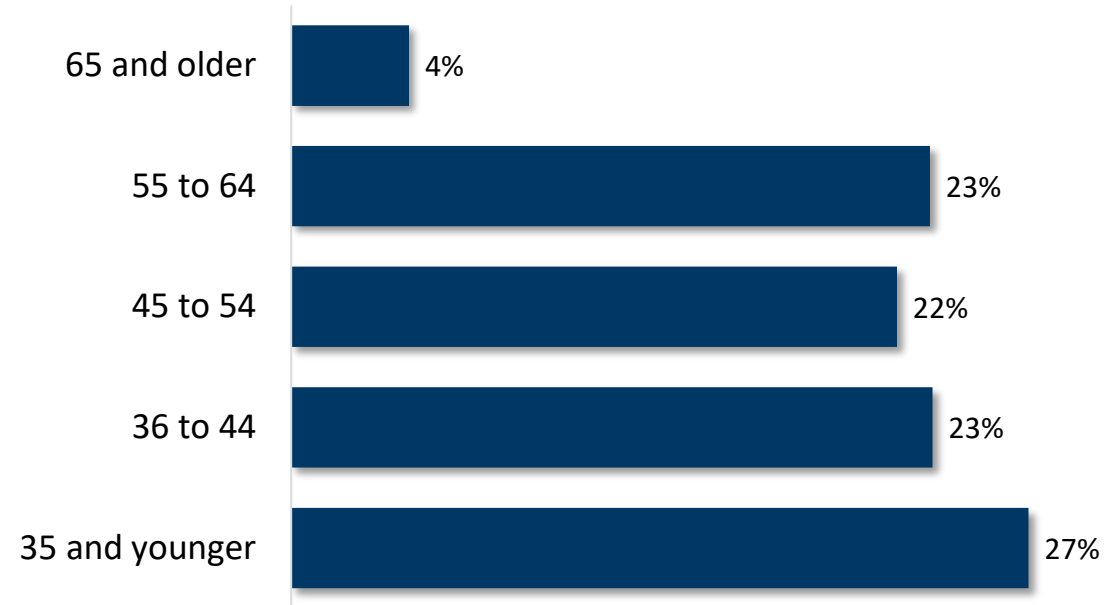
# Summary of Findings

- As of October 2019, there were **2,069** actively licensed respiratory therapists (RTs) in Minnesota, the majority of whom work in the 7-County Metro region.
- There is a relatively large cohort of young RTs entering the labor market—a hopeful sign. Of the few RTs planning to stop practicing in the next five years, the majority are retiring (see slides [4](#) and [11](#)).
- There are only six schools in Minnesota with RT programs, and half of those are located in the Twin Cities area. The majority of degrees conferred were associate’s degrees (see slides [8](#) and [9](#)).
- The majority—84 percent—of Minnesota’s RTs are white, and roughly 88 percent speak only English in their practice without the help of an interpreter. However, most RTs report that on-the-job learning (as opposed to formal classroom or training) best prepared them to provide culturally competent care (see slides [5](#), [6](#), and [15](#)).
- As of now, as many as 64 percent of RTs report “never” using telemedicine equipment to consult with patients (see slide [13](#)).
- Similar to many health care professions in general, most RTs are satisfied with their work, but they generally report higher levels of satisfaction with their career overall than they do with their work specifically in the last 12 months (see slide [16](#)).
- Like all other health care provider types, there is a maldistribution of RTs in Minnesota, with the majority practicing in urban areas. Assuming the same *share* of people need access to RTs in urban and rural areas, rurally-based RTs are facing a patient load approximately ten times greater (in sheer numbers) than urban RTs (see slide [19](#)).

The data in this report come from two sources: (1) the Board of Medical Practice (October, 2018) and the Minnesota Department of Health RT Workforce Survey (2018). For more information on methodology, please see [Slide 20](#) in this report.

# Demographics: Age and Sex

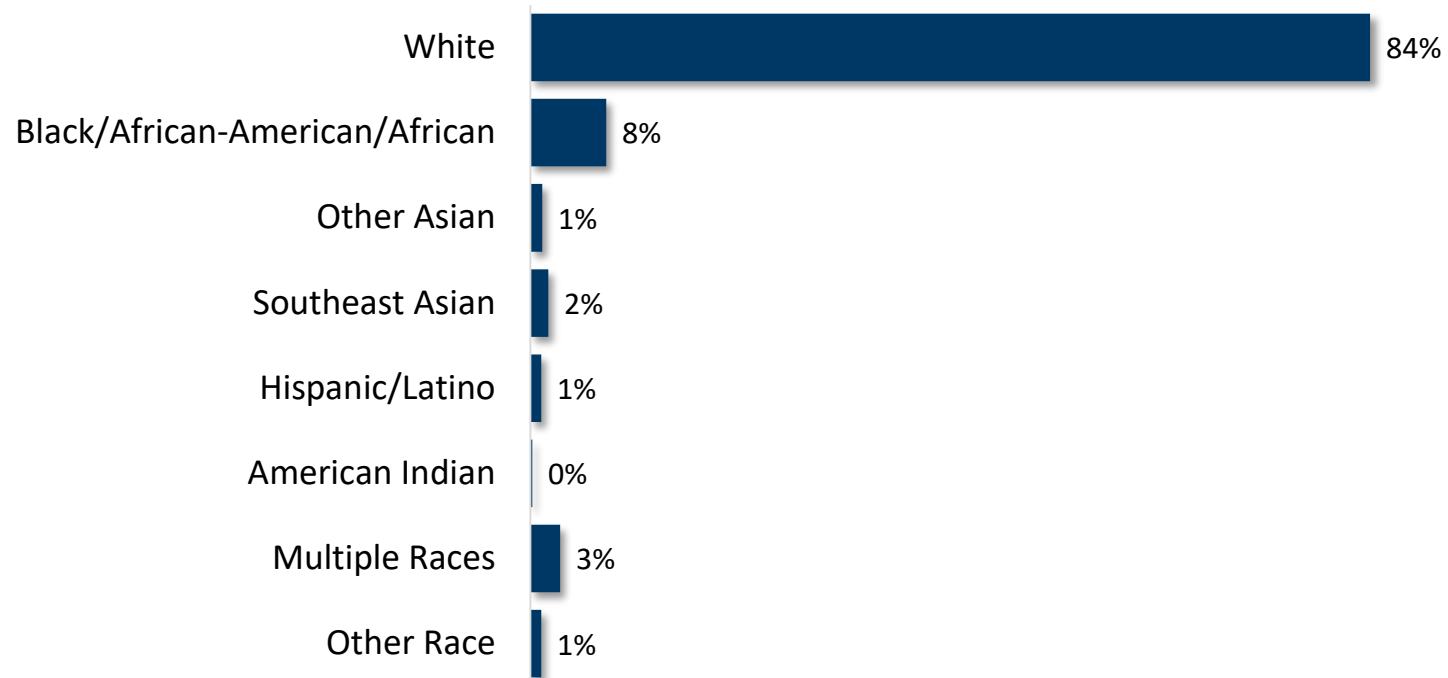
## Age of Minnesota Respiratory Therapists



- Minnesota's RT workforce is relatively young, with the largest share of RTs being 35 years old and younger. Very few actively licensed RTs—just 4 percent—are age 65 and over.
- (Not shown above): Just under two-thirds—65.4 percent—of RTs are female.

# Demographics: Race and Ethnicity

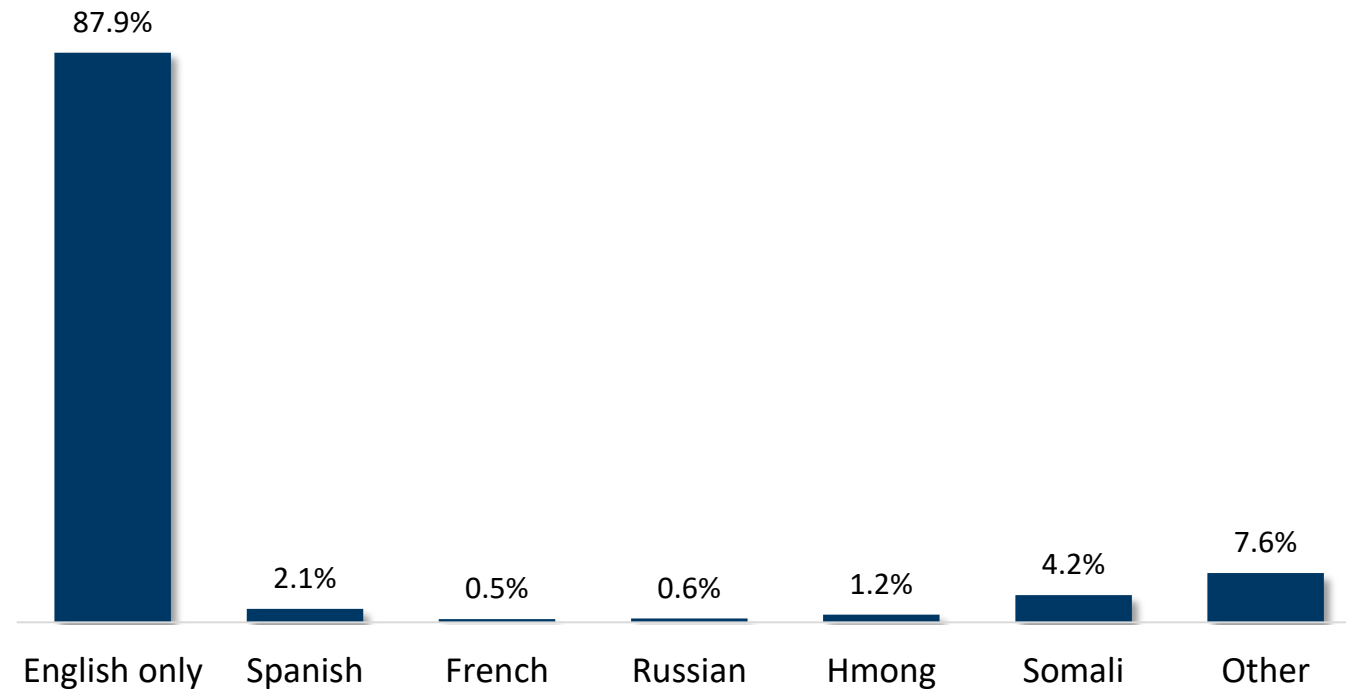
## Race of Minnesota Respiratory Therapists



- Typical of racial patterns among health care professionals, the majority (84 percent) of RTs indicated they were white, with the second-highest share (8 percent) indicating they were African American or African.

# Demographics: Languages Spoken in Practice

Languages Spoken by Minnesota RTs in their Practices

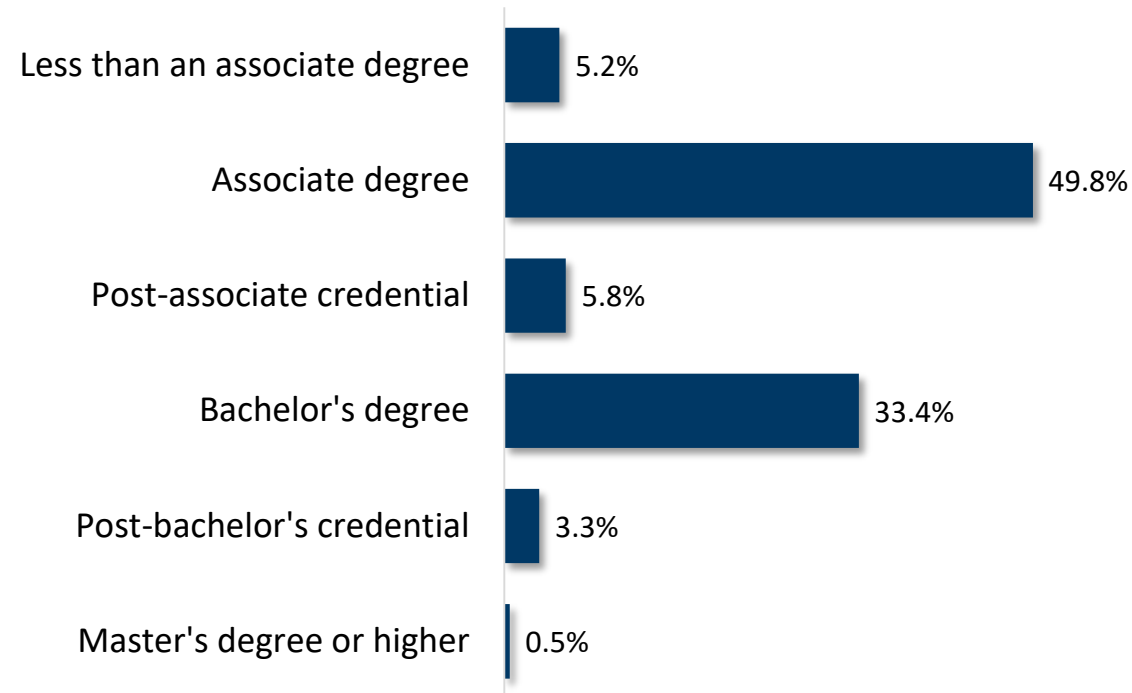


- The majority of RTs—approximately 88 percent—spoke only English in their practices. The second most commonly spoken language was Somali. Very small shares of RTs spoke other languages such as Hmong, Russian, or Spanish with their patients.

Source: MDH RT Questionnaire, 2018. Respondents could select as many languages as applicable, but were instructed **not** to include languages spoken only through an interpreter. The chart is based on 1,734 valid survey responses. Common “other” languages mentioned included Amharic, Arabic, and Oromo.

# Education: Educational Attainment

“What is the highest degree you have completed?”



- The single largest share of actively licensed RTs have earned an associate’s degree (49.8 percent), with another 33.4 percent holding a bachelor’s degree. An associate’s degree is required for entry into the profession.

# Education: Minnesota Graduates by Institution

## All Degrees Awarded from Minnesota Respiratory Therapy Programs, by Year

Respiratory Therapy Program Graduates, by Institution and Year				
	Institution	2015	2016	2017
<b>Northeast</b>	Lake Superior College	18	18	20
<b>Northwest</b>	Northland Technical and Community College	6	11	12
<b>Twin Cities</b>	Saint Paul College	21	16	17
	Concordia University	2	8	11
	Saint Catherine University	13	16	14
<b>Southeast</b>	Mayo Clinic College of Medicine and Science	12	9	7
	<b>Total</b>	<b>72</b>	<b>78</b>	<b>81</b>

- According to data from the National Center for Education Statistics, there are six postsecondary programs in Minnesota that educate respiratory therapists, half of which are in the Twin Cities area. Combined, these three programs awarded degrees to 72, 78, and 81 respiratory therapy graduates in 2015, 2016, and 2017, respectively.



# Education: Minnesota Graduates by Degree Type

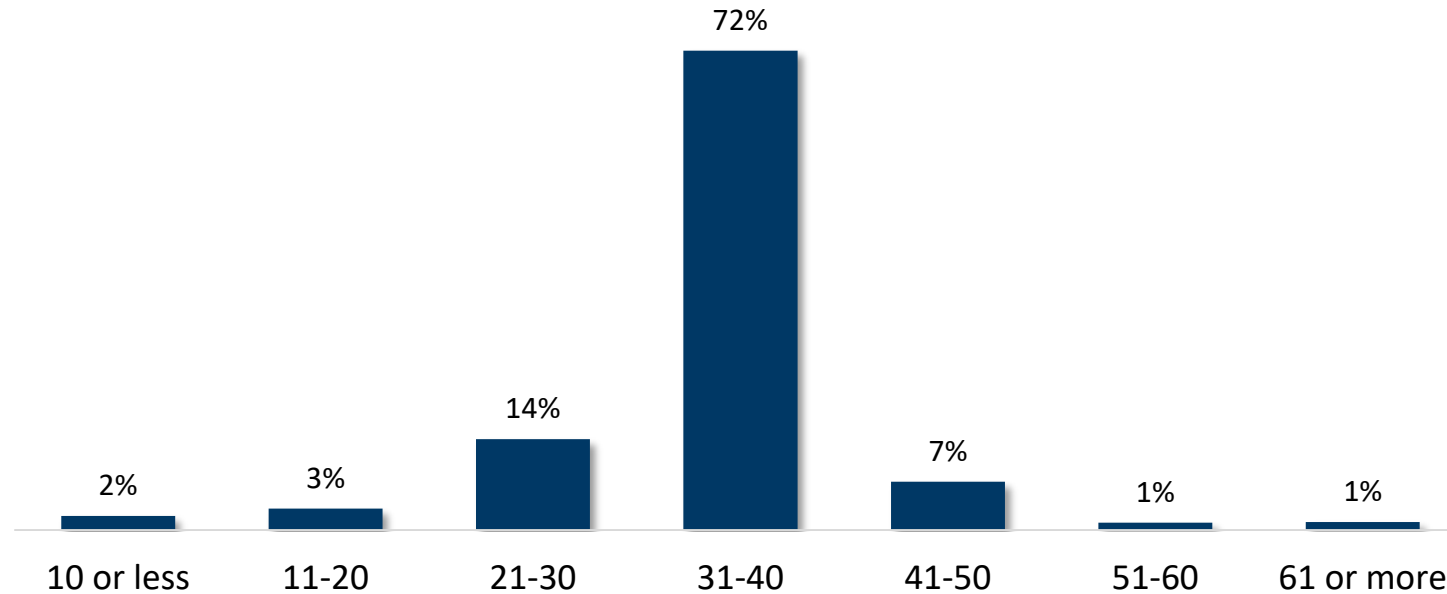
## All Degrees Awarded from Minnesota Respiratory Therapy Programs, by Degree Type

Degree Type	2015	2016	2017	Total
Pre-associate certificate (1-2 years)	12	9	7	28
Associate degree	45	45	49	139
Bachelor's degree	15	24	24	63
Post-baccalaureate certificate	0		1	1

- Also according to the National Center for Education Statistics, the most common degree conferred to Minnesota respiratory therapy graduates in 2015, 2016, and 2017 was an associate degree.

# Employment: Employment & Hours Worked

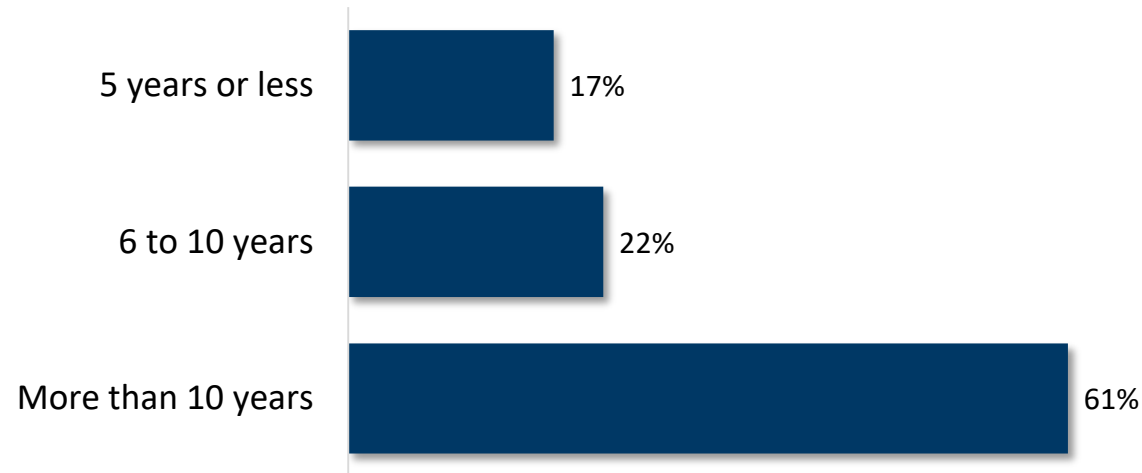
Hours Worked in a Typical Week



- The median work week for RTs was 36 hours, with the majority (72 percent) of RTs working between 31 and 40 hours per week.
- (Not shown above): An estimated 98.5 percent of Minnesota RTs reported on the MDH questionnaire that they were “working in a paid or unpaid position related to [their] license,” indicating that this workforce is very well utilized, with very few licensees not working.

# Employment: Future Plans

“How many more years do you plan to work in this profession?”



- A relatively small share of RTs—17 percent—indicated that they plan to leave the field within five years. The majority (61 percent) plan to continue working for more than 10 more years.
- (Not shown above): Among the 17 percent of RTs planning to leave, a majority (74 percent) said they planned to retire. An estimated 9 percent said they planned to pursue a different career; another 6.7 percent said they planned to pursue more education to advance in their own career; and just under five percent said they planned to leave respiratory therapy due to career dissatisfaction or burnout.

# RTs at Work: Work Settings

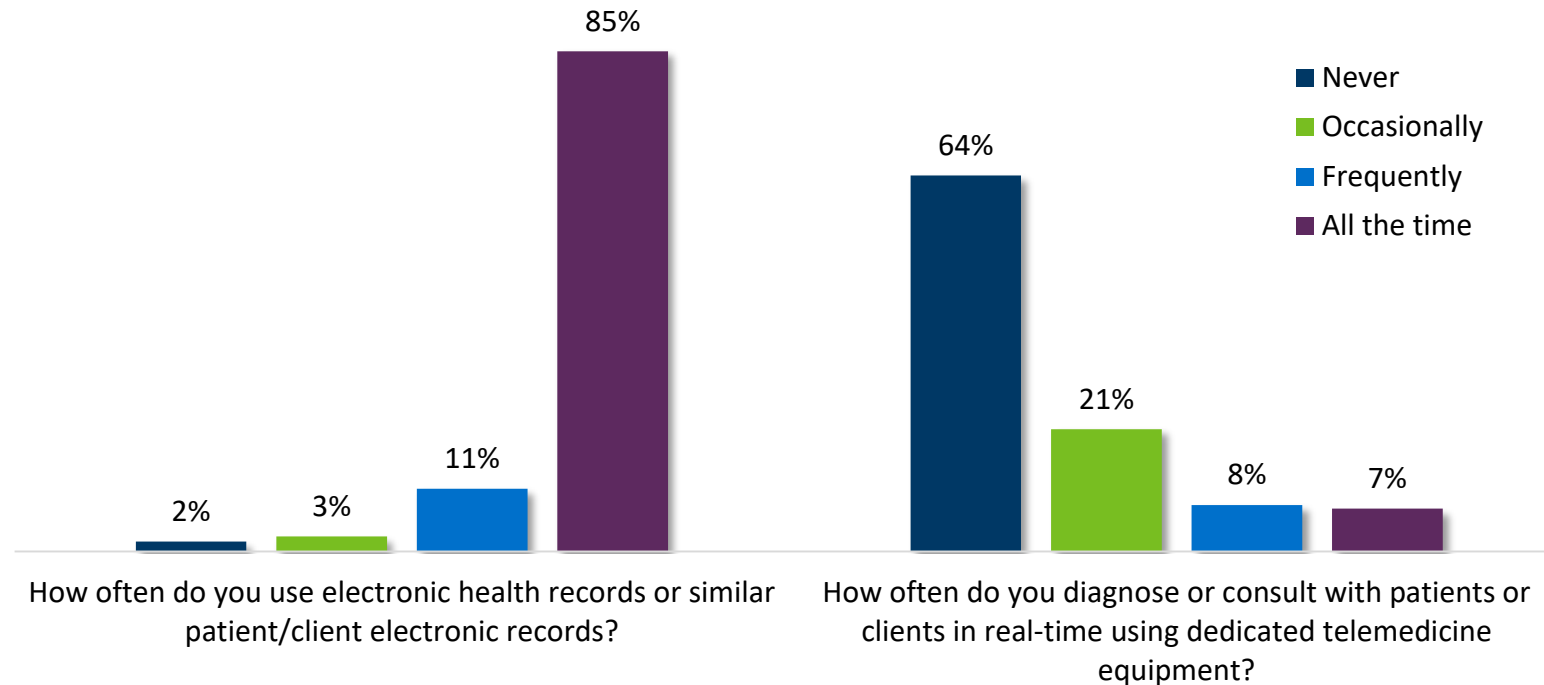
## RTs' Primary Work Settings

Setting	Share of RTs Working in this Setting
Hospital	75.0%
Clinic/Professional Office/Health Center/Ambulatory Care	11.1%
Home Health Care	6.3%
Academic (Teaching/Research)	2.1%
Long-Term Care Facility	1.4%
State, County, or City Agency	0.3%
Community/Faith-Based Organization	0.2%
Insurance/Benefits Management Organization	0.1%
Other	3.5%
Total	100.0%

- RTs can work in a variety of settings. However, the majority – 75 percent – work in a hospital. The second most popular setting for RTs is a clinic, professional office, health center or in ambulatory care, employing roughly 11 percent of the RT workforce in Minnesota. Other settings host much smaller shares of the RT workforce.

# RTs at Work: EHRs and Telemedicine

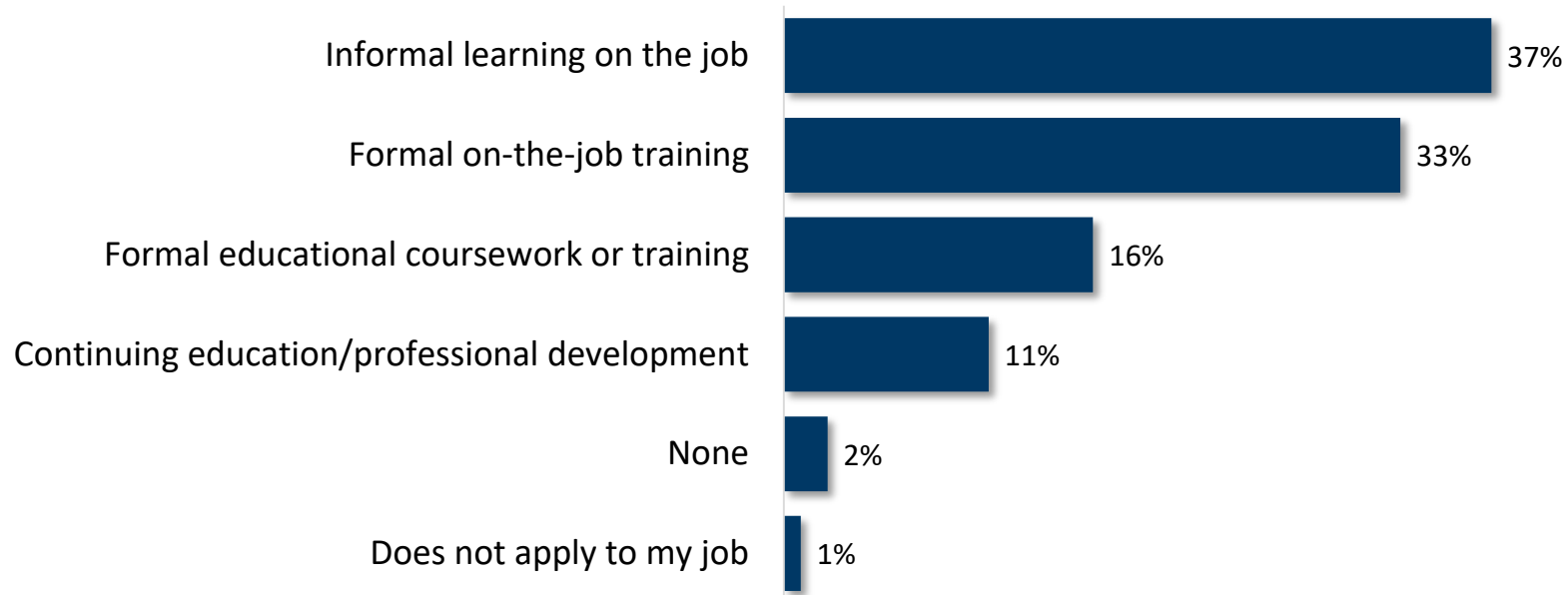
## RTs' Use of Electronic Health Records and Telemedicine Equipment



- The MDH workforce survey includes questions on the use of technology in health care settings. Here, we show responses to questions about how often RTs use electronic health records (EHRs) and/or equipment dedicated to telemedicine. The results show that a large majority (85 percent) of RTs use EHRs “all the time,” but approximately two-thirds (64 percent) do not use telemedicine equipment regularly.

# RTs at Work: Teamwork

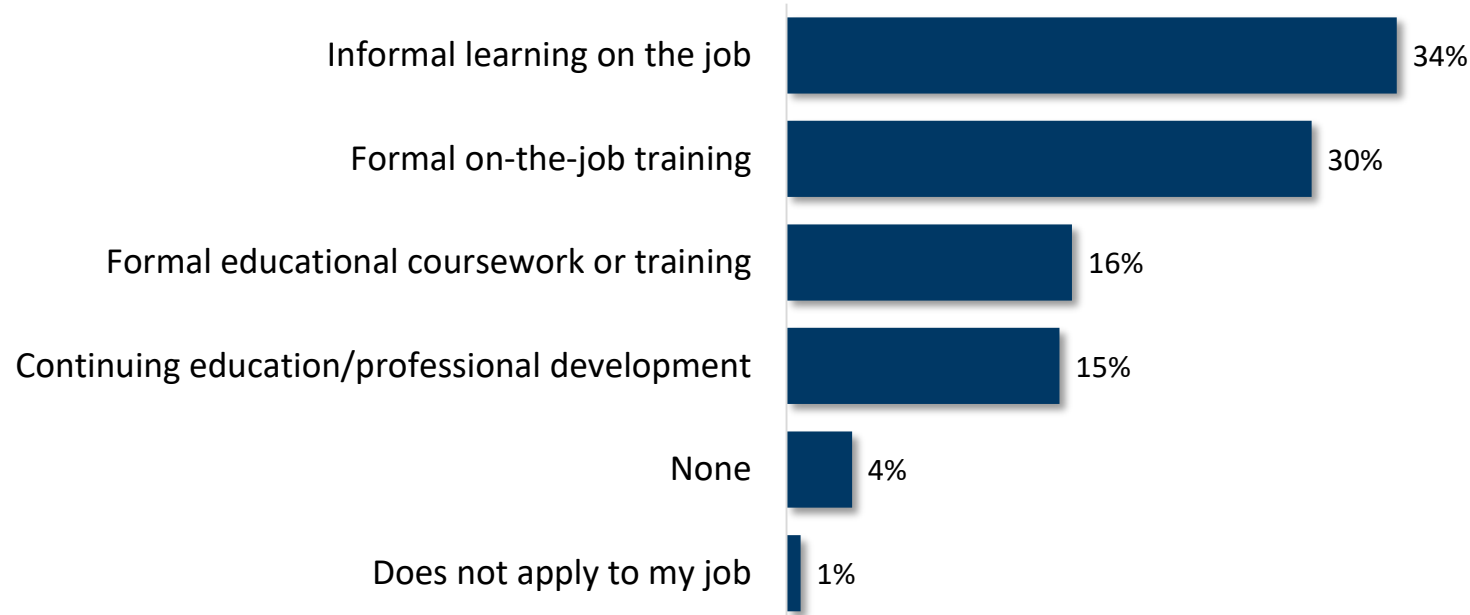
**“Which of the following work or educational experiences best prepared you to work with a multi-disciplinary team when providing care?”**



- 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 survey to shed light on these questions. As shown above, a total of just over two-thirds of RTs reported that either informal (37 percent) or formal (33 percent) learning on the job *best* prepared them to work in multidisciplinary teams. A small share – barely one percent – reported that multidisciplinary team training did not apply to their job.

# RTs at Work: Cultural Competence

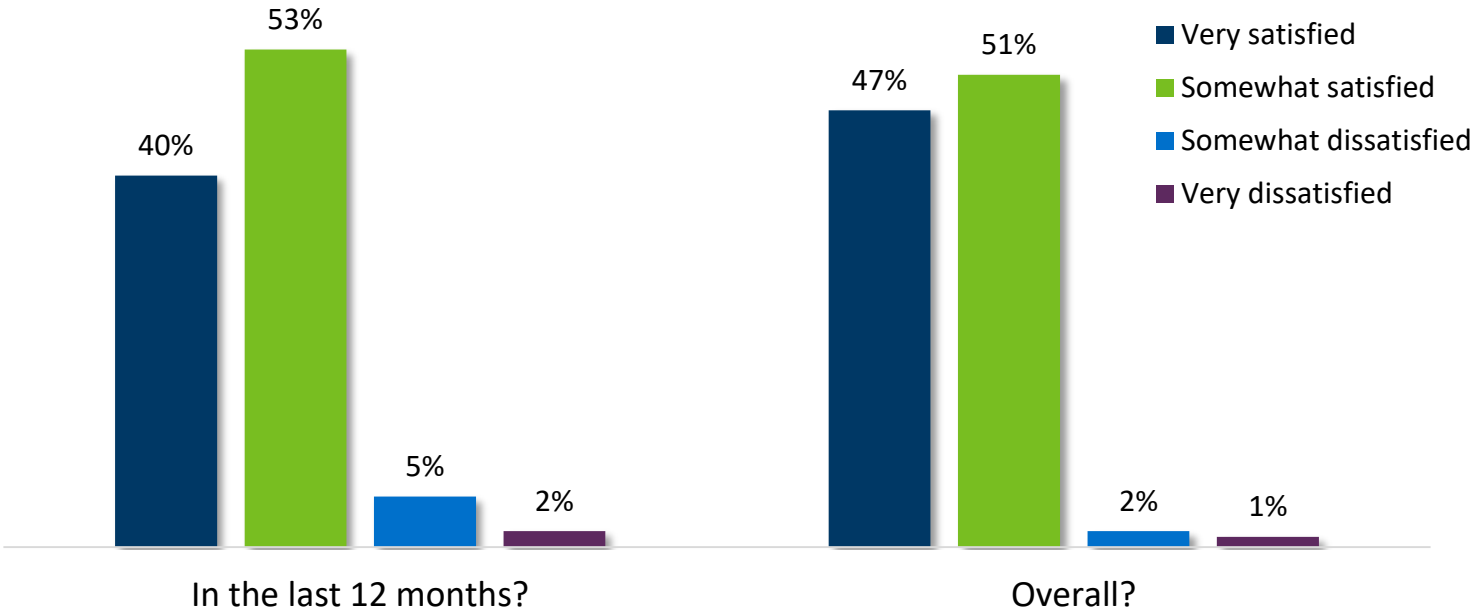
Which of the following work or educational experiences best prepared you to work with people from a variety of backgrounds when providing care (sometimes referred to as “culturally competent” care)?



- Stakeholders are increasingly concerned about the extent to which providers deliver care that is culturally sensitive to all communities. The MDH survey includes a question to understand which experiences best prepare health care providers to provide culturally competent care. As shown above, the largest share of RTs (just over one in three) report that they learn cultural competence *best* through informal, on-the-job learning, closely followed by formal on-the-job training. Other learning modalities are found most beneficial by nearly equal shares.

# RTs at Work: Career Satisfaction

How satisfied have you been with your job....



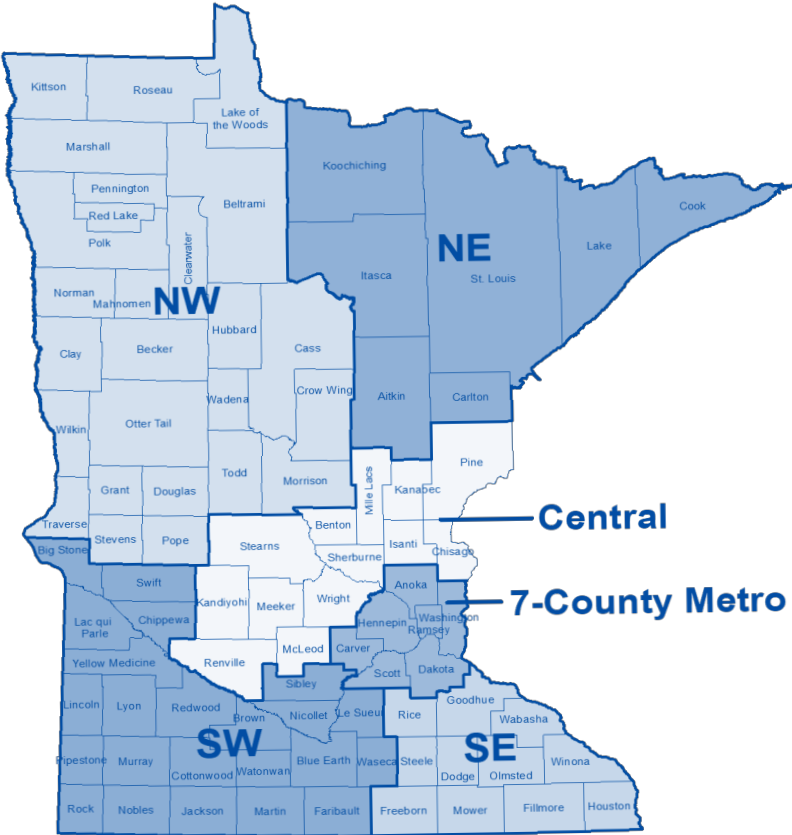
- The 2018 workforce survey included questions on career satisfaction in the past 12 months and overall. As shown above, the vast majority of RTs indicated that they were either “satisfied” or “very satisfied,” both in the past 12 months and overall. RTs were more likely to report being very satisfied with their career overall compared to the last 12 months—a trend typical among health care professionals for which work satisfaction data is available. This is consistent with national findings which suggest that the increase in administrative work—such as dealing with billing, insurance, and electronic medical records—has dampened work satisfaction among health care providers.

Source: MDH RT Workforce Questionnaire, 2018. Percentages are based on 1,789 valid responses.



# Geographic Distribution: Two ways to present geography

By state planning areas

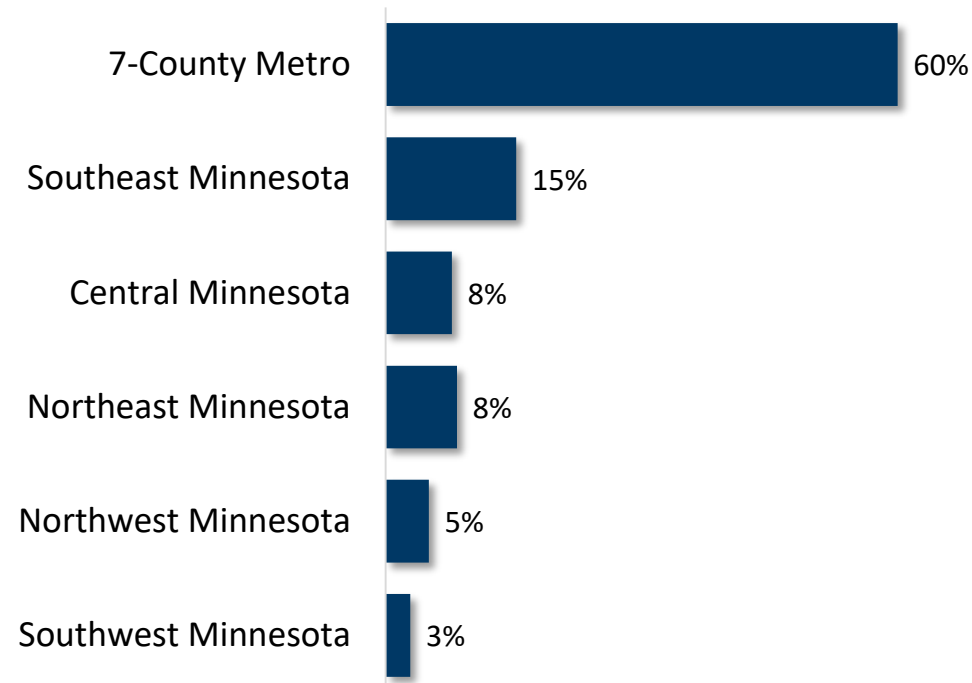


For more information:

<https://apps.deed.state.mn.us/assets/lmi/areamap/plan.shtml>

# Geographic Distribution: by Planning Area

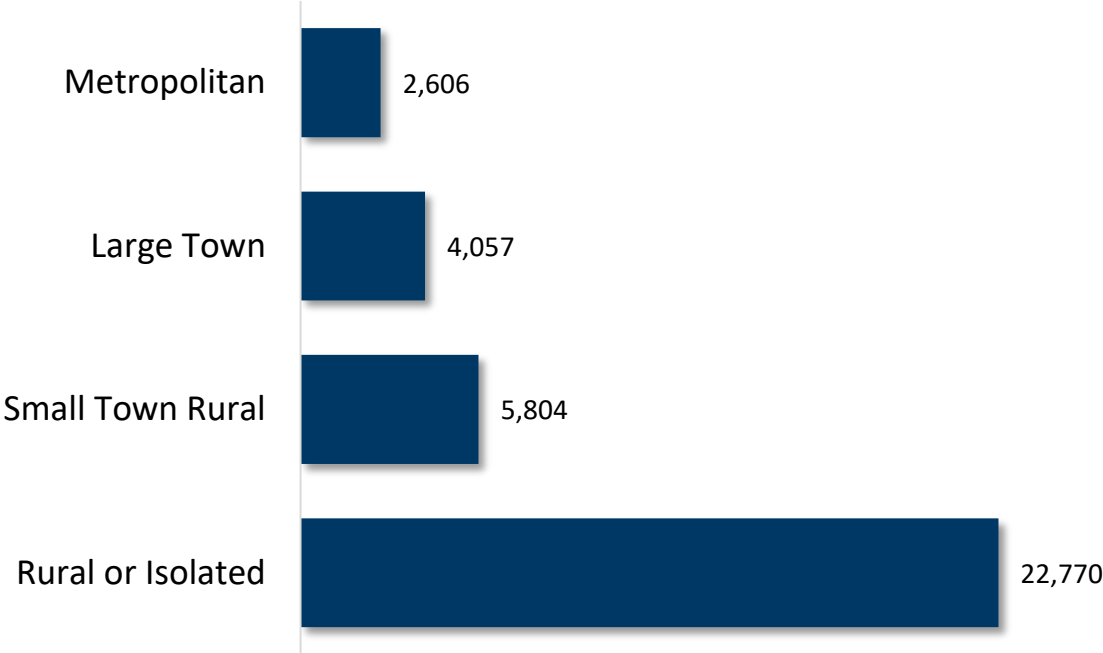
Share of RTs by State Planning Area



- Almost two-thirds of all RTs work in the 7-County metro area, with another 15 percent in the southeast region of the state. The other regions of Minnesota have access to less than ten percent of Minnesota’s licensed RTs within their region. This distribution is common among Minnesota health care providers across most professions, with the majority of providers being employed in the Twin Cities metro area.
- 244 RTs were unable to be connected to a region of the state because they were either practicing out of state or did not provide a valid address to the Minnesota Board of Medical Practice.

# Geographic Distribution: by Rurality

Minnesota Population-to-RT Ratio, by Level of Rurality



- The chart above provides another way to understand how the geographic distribution of providers may affect access to care. This chart shows the population per every one RT in urban, large town, small town rural, and isolated rural areas. As shown, there are 2,606 people to every one RT in urban areas of Minnesota, compared to nearly ten times that in isolated and 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.

# Methodology

The data in this report come from two sources:

- The **Minnesota Board of Medical Practice (BMP)** provides data on the entire population of RTs who have active licenses in the state of Minnesota. The BMP maintains this database primarily for administrative and legal purposes. BMP provides the data to the Minnesota Department of Health, Office of Rural Health and Primary Care (MDH-ORHPC). This report uses data current as of October, 2019. At that time, there were a total of **2,069** RTs with active Minnesota licenses, approximately 88 percent of whom indicated that their primary business address was in Minnesota. (Note that the analyses exclude RTs whose licenses were active/restricted or active/conditional.) Analysts at the Minnesota Department of Health-Office of Rural Health and Primary Care organize, clean, and geocode addresses that come from the board, which is how we can identify practice locations (shown in Slides 19 and 20).
- The **2018 Minnesota Department of Health-Office of Rural Health and Primary Care (MDH-ORHPC) RT survey** collects additional demographic and workforce data from RTs. MDH-ORHPC administered the survey to all RTs who renewed their Minnesota license in the calendar year of 2018. The response rate for this survey cycle was approximately 88 percent.

# Notes

Visit our website at

<https://www.health.state.mn.us/data/workforce/index.html>  
to learn more about the Minnesota health care workforce.

County-level data for this profession is available at

<https://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)**

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