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Minnesota's Registered Nurse (RN) Workforce

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Office of Rural Health and Primary Care

Contents and Quick Links

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Highlights of Minnesota's RN Workforce

- As of June 2019, there were 104,355, actively licensed registered nurses in Minnesota, the majority of whom work in the Twin Cities region (slide 19).

- Registered nurses are mostly female (91 percent) and younger overall (slide 4) with more than half the providers under the age of 45 and most plan to practice for at least another ten years (slide 11).

- A large majority of RNs speak English (91 percent) (slide 6) and are white (91 percent) (slide 5), which may impact the populations served.

- The majority of RNs work in either a hospital (51 percent) or clinic/professional office/ambulatory care facility (17 percent) (slide 13).

- Registered nurses utilize electronic health records (EHRs) "all the time" (84 percent), while use of dedicated telemedicine equipment was less than 30 percent (slide 14).

- There are differences in the geographic distribution of RNs across the state (slide 19). The majority of RNs remain concentrated in the 7-county Twin Cities Metro and Southeast regions (71 percent), most likely drawn to the larger hospital systems and the Mayo Clinic.

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Demographics: Sex and Age

RNs by Age Group

Age Group	Percentage
34 and younger	28%
35 to 44	24%
45 to 54	18%
55 to 64	21%
65 and older	9%
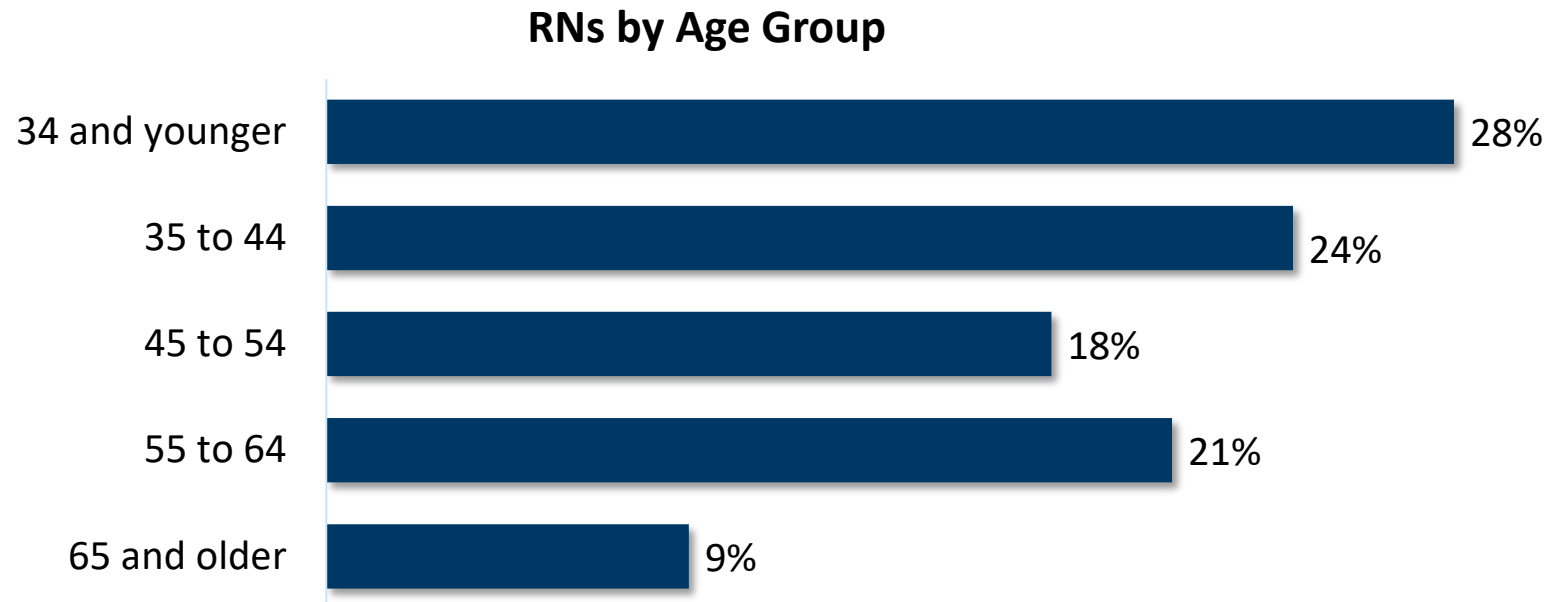
- The median age of RNs was 45. As a group, RNs are younger than Minnesota physicians (median age, 50) , but older than the state's health workforce overall (median age, 41 years).

- Slightly more than half of RNs were under the age of 44. This is good news for Minnesota as the percentage of older RNs retiring and leaving the workforce (see slide 15) continues to grow.

- Data not shown: Only 9 percent of Minnesota RNs are male.

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Demographics: Race and Ethnicity

Chart: Race and Ethnicity

- White — 91%
- Black/African-American/African — 5%
- Asian — 4%
- Hispanic/Latino — 2%
- American Indian — 1%
- Other — 1%
- Skipped Question — 11%
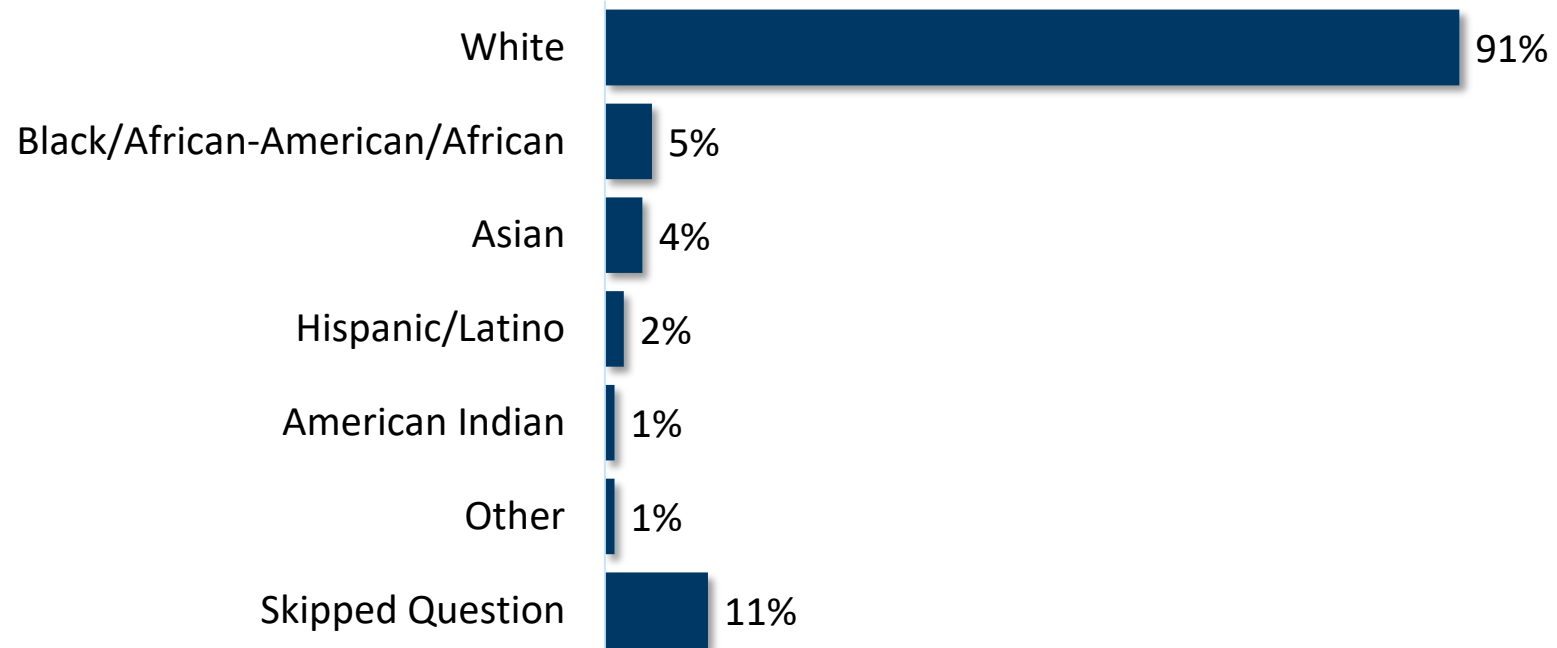
- The majority (89 percent) of RNs indicated they were white, and the next largest share—eight percent—indicated that they identified as black, African American, or African. Although a predominately white profession, the LPN workforce is slightly more culturally and racially diverse than rest of the health care workforce.

- (Data not shown): Thirty percent of LPNs 44 years and younger were more likely to identify as non-white versus 27 percent of LPNs who were 45 years and older.

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Demographics: Languages Spoken in Practice
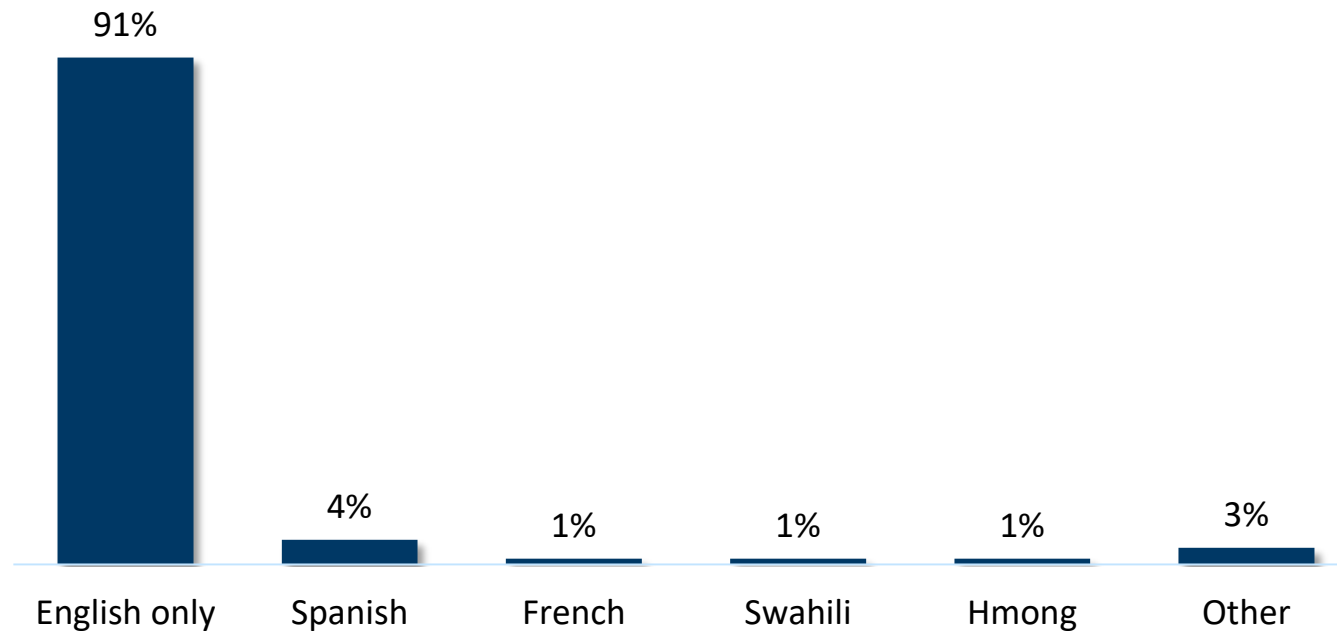
A majority of RNs only speak English in their practice. The second most commonly spoken language was Spanish. Some of the more frequently spoken languages listed as "other" were Tagalog, Filipino, German, Yoruba, and Chinese.

Education: Initial Educational Attainment

Associate degree or less — 60%

Post-associate credential — 1%

Bachelor's degree — 38%

Post-bachelor's credential — 0.5%

Master's degree — 1%
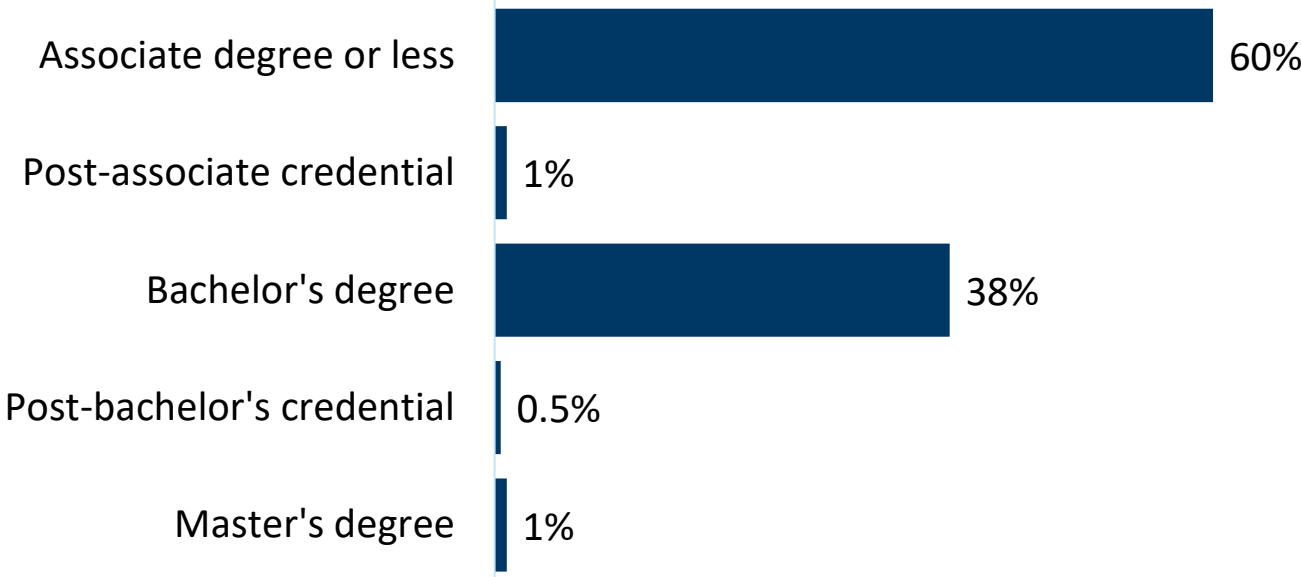
- Registered nurses usually complete either a bachelor's degree in nursing, an associate's degree in nursing, or a diploma from an approved nursing program. All RNs must pass an additional licensing exam to practice.

- RNs were asked about the type of degree or credential they first obtained to practice as a nurse. Over a third of RNs reported earning a bachelor's degree (38 percent) qualifying them for their first nursing license, while 60 percent earned an associate degree or other type of certificate such as a hospital diploma.

- Data not shown: Among RNs who reported earning a bachelor's degree, 90 percent also reported their bachelor's degree was in nursing.

Education: Highest Educational Attainment

Associate degree or less — 34%
Post-associate credential — 2%
Bachelor's degree — 50%
Post-bachelor's credential — 3%
Master's degree — 9%
Post-master's credential — 0.4%
Doctorate or professional degree — 1%
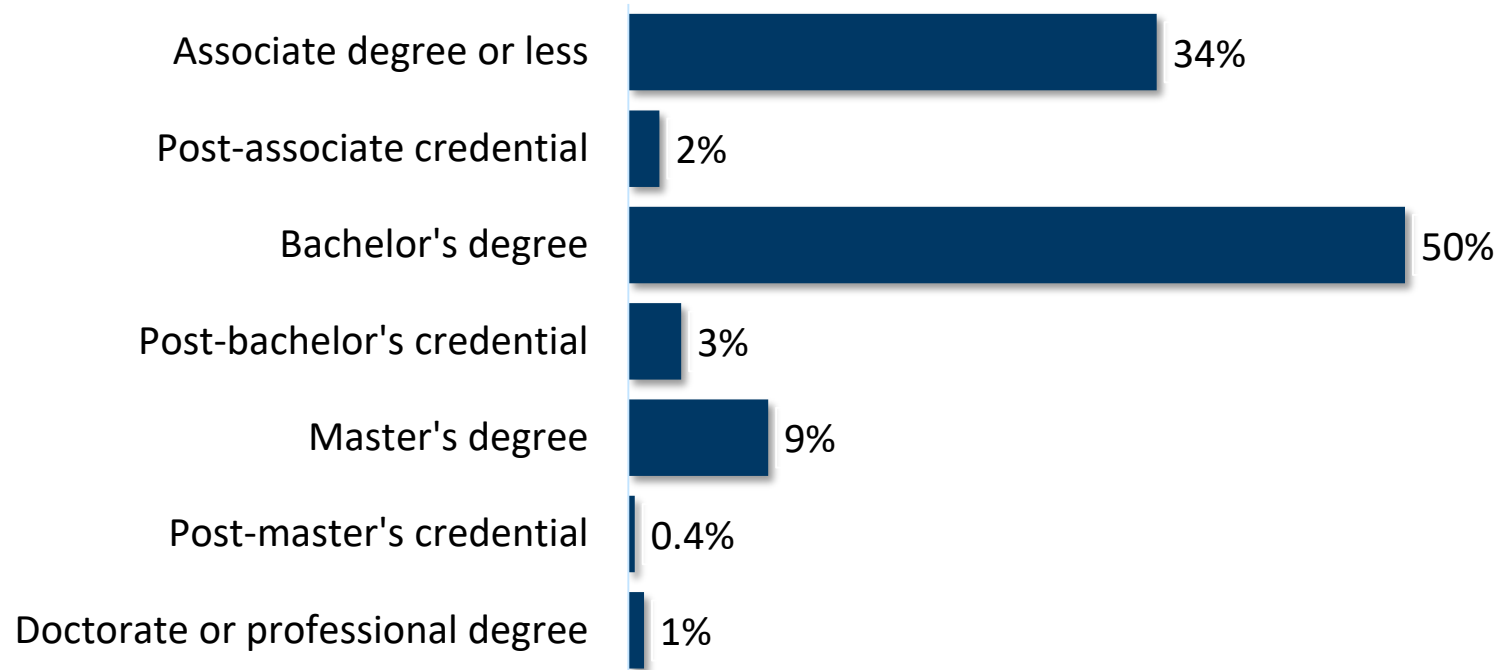
- Sixty-four percent of Minnesota's RNs have a bachelor's degree or higher.

- Data not shown: A comparison of RNs by age shows a greater percentage of RNs under 45 acquired a bachelor's degree or higher compared to RNs 45 years and older (71 percent versus 57 percent). Most RNs earned their highest degree in Minnesota (68 percent), followed by the border states of Wisconsin at 5 percent, North Dakota at 4 percent, South Dakota at 3 percent, Iowa at 3 percent.
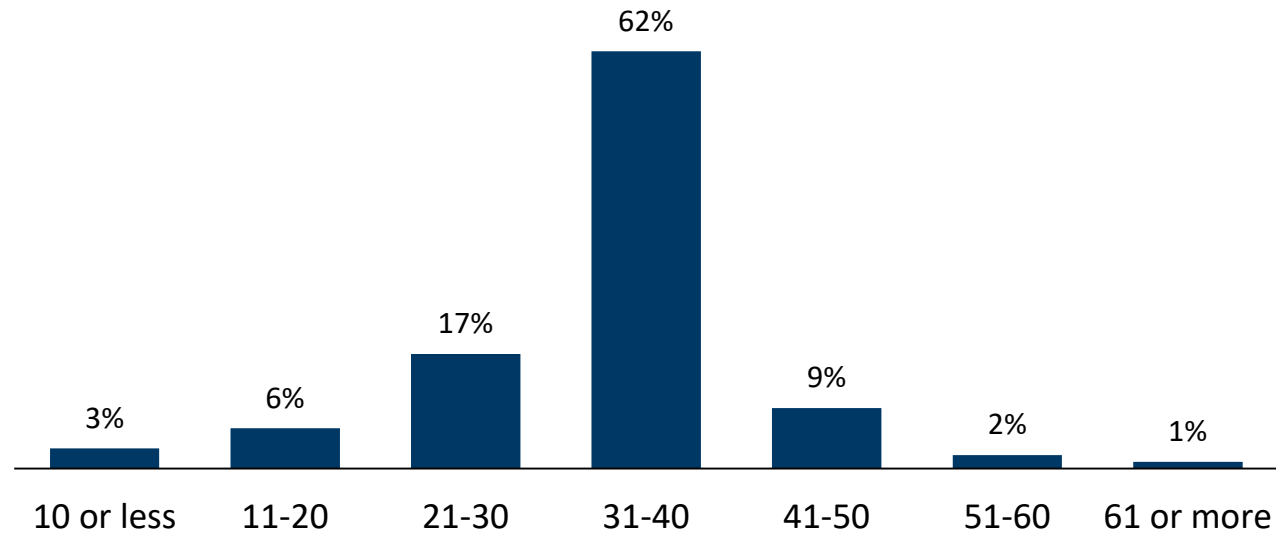
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Education: Minnesota Graduates by Institution

Degrees Awarded from Minnesota's Registered Nurse Programs, by Region and Year						
Region	**Degree Type**	**2015**	**2016**	**2017**	**2018**	**2019**
Central	Associate Degree	239	249	246	252	262
	Bachelor's of Science	121	125	127	125	121
	Sub Total	**360**	**374**	**373**	**377**	**383**
Northeast	Associate Degree	208	187	199	221o	210
	Bachelor's of Science	161	169	164	171	185
	Sub Total	**369**	**356**	**363**	**392**	**395**
Northwest	Associate Degree	343	337	298	323	311
	Bachelor's of Science	87	77	78	95	86
	Sub Total	**430**	**414**	**376**	**418**	**397**
Southeast	Associate Degree	354	340	344	351	246
	Bachelor's of Science	268	300	289	293	287
	Sub Total	**622**	**640**	**633**	**644**	**533**
Southwest	Associate Degree	149	146	148	134	158
	Sub Total	**149**	**146**	**148**	**134**	**158**
Twin Cities	Associate Degree	909	1130	1112	964	1121
	Bachelor's of Science	425	430	403	423	530
	Master's in Nursing	65	119	125	135	134
	Sub Total	**1399**	**1679**	**1640**	**1522**	**1785**
	Grand Total	**3,329**	**3,609**	**3,533**	**3,487**	**3,651**

- In 2019, Minnesota produced **3,651 new graduates** across all the RN degree programs, a five percent increase from the previous year.

- The Twin Cities region has over twice as many RN graduates across all RN degree programs compared to the other regions of the state.

- The Southwest region had an 18 percent increase in the number of RN graduates from 2018 to 2019, the largest regional increase of graduates compared to other regions of the Minnesota during the same time period.

Employment: Hours Worked

Hours Worked in a Typical Week

Bar chart of hours worked in a typical week:
- 10 or less: 3%
- 11-20: 6%
- 21-30: 17%
- 31-40: 62%
- 41-50: 9%
- 51-60: 2%
- 61 or more: 1%

- The median work week for RNs was 37 hours, and more than half of RNs worked between 31 and 40 hours per week (62 percent). Twelve percent of RNs reported working 41+ hours in a typical week.

- Data not shown: An estimated 90 percent of licensed RNs reported on the MDH questionnaire that they were "working in a paid or unpaid position related to [their] license." This indicates that the vast majority of the RN workforce is working in the field. Among the 10 percent of RNs who were not working, 62 percent had retired or were working in another role unrelated to their license. Another 28 percent said they were not working because of family or medical reasons and 10 percent were in search of a nursing position. RNs spent the majority of their time caring for patients. Seventy-one percent reported that they spent more than half of their time providing direct patient care. This is another indication that RNs are being fully utilized professionally.
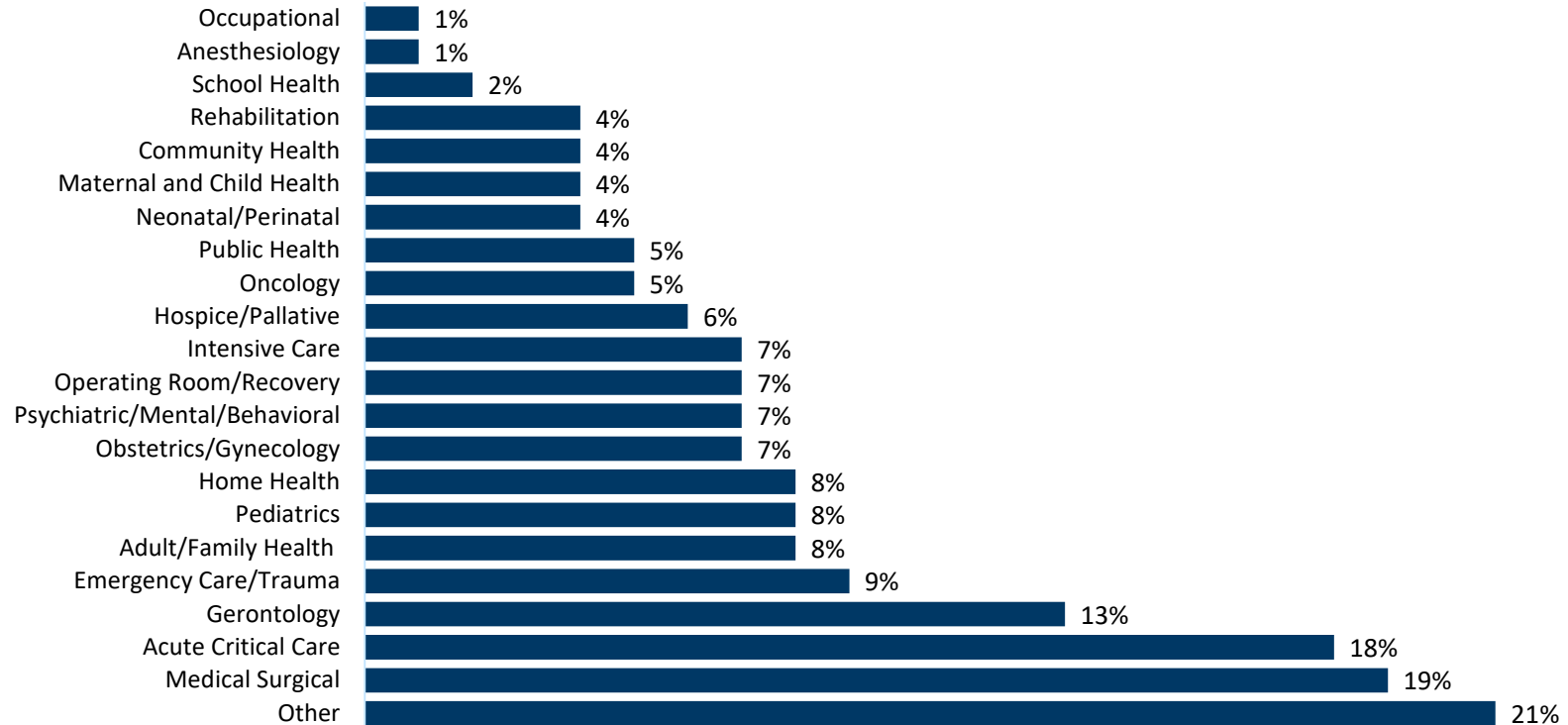
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Employment: Future Plans

"How long do you plan to continue practicing as a Registered Nurse in Minnesota?"
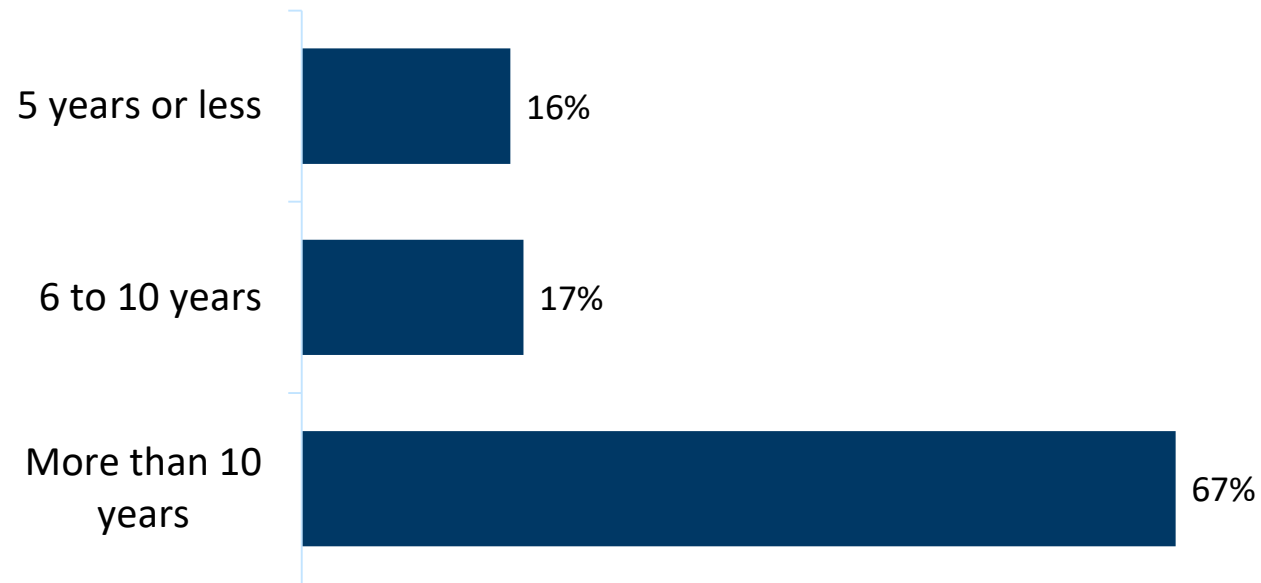
- When asked about future plans, 67 percent of RNs said they were planning to practice for more than 10 years. This is an increase from 62 percent of RNs in 2015-2016 who reported plans to practice more than 10 years.

- Data not shown: Sixteen percent of RNs indicated that they planned to leave the field within five years. Of those planning to leave, the vast majority (80 percent) said they planned to retire. Nine percent of this subgroup planned to leave to pursue training to advance in their current or a related profession, while 3 percent planned to leave the field due to burnout or dissatisfaction, and another 3 percent said they planned to pursue a different career. The final five percent were leaving due to family obligations or for some other personal reason.

Source: MDH RN Workforce Questionnaire, 2017-2018. Percentages are based on 58,393 valid responses.

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At Work: Specialties

Specialty	Percent
Occupational	1%
Anesthesiology	1%
School Health	2%
Rehabilitation	4%
Community Health	4%
Maternal and Child Health	4%
Neonatal/Perinatal	4%
Public Health	5%
Oncology	5%
Hospice/Pallative	6%
Intensive Care	7%
Operating Room/Recovery	7%
Psychiatric/Mental/Behavioral	7%
Obstetrics/Gynecology	7%
Home Health	8%
Pediatrics	8%
Adult/Family Health	8%
Emergency Care/Trauma	9%
Gerontology	13%
Acute Critical Care	18%
Medical Surgical	19%
Other	21%

- Registered Nurses were asked to identify all the medical specialties they practiced. As shown above, Medical Surgery and Acute Critical Care were the most commonly reported specialties among RNs, with 19 percent and 19 percent respectively identifying each area as their specialty. Gerontology was the third most common specialty reported by RNs.

- The largest share of RNs (21 percent) reported they had another specialty not included in the selection list. Based on open-ended responses, RNs' most common "other" specialties were occupational, anesthesiology, rehabilitation, cardiology, research, and care coordination.
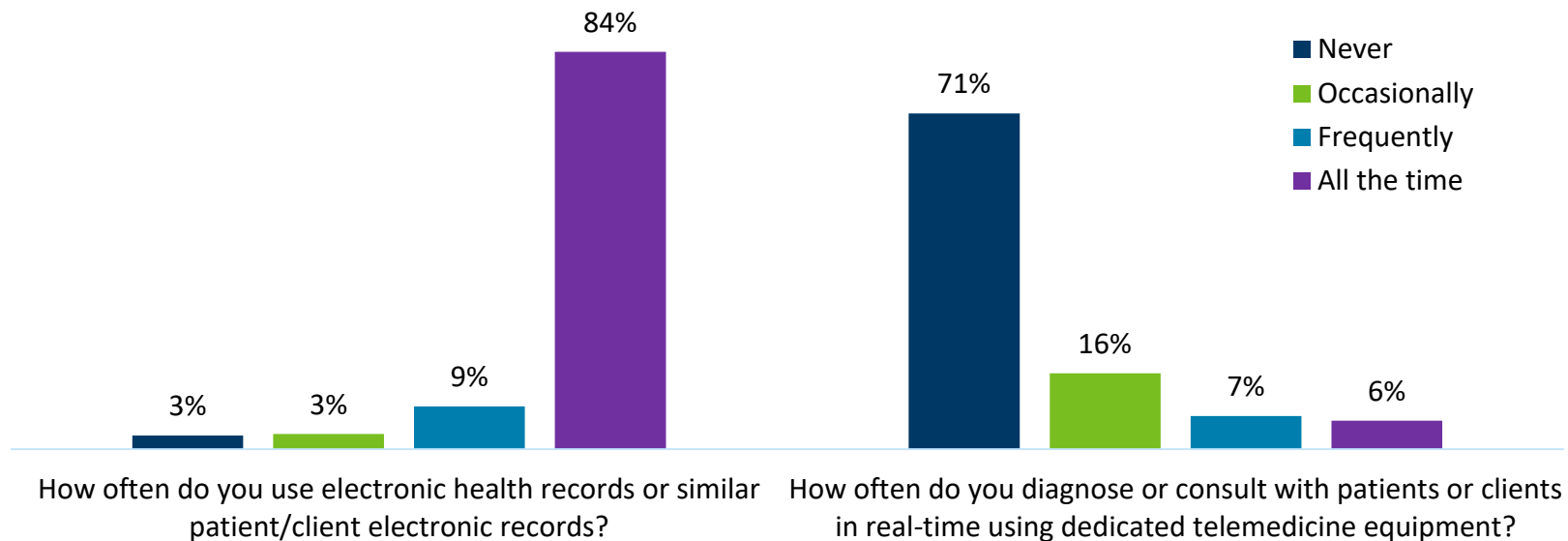
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At Work: Primary Work Settings

Primary Setting	Share of RNs Working in this Setting
Hospital	51.0%
Clinical/Professional Office/Health Center/Ambulatory Care	17.4%
Long-Term Care Facility	8.1%
Home Health Care	4.8%
Insurance/Benefits Management Organization	4.3%
Academic (Teaching/Research)	3.2%
Public Health Agency	1.6%
School (Pre-K to 12)	1.5%
Community/Faith-Based Organization	0.9%
Correctional Facility	0.6%
State, County, City Agency	0.5%
Pharmacy	0.1%
Other	5.9%

- RNs were asked to identify their primary work setting. Most RNs described working in either a hospital or clinical setting (68 percent).

- Data not shown: When RNs were asked about the number of physical locations where they worked, 76 percent reported working in one location; 13 percent reported splitting their time across two locations, and another 11 percent said they worked at three or more different locations.

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At Work: EHRs and Telemedicine

RNs' Use of Electronic Health Records and Telemedicine Equipment

Legend:
- Never (dark blue)
- Occasionally (green)
- Frequently (teal)
- All the time (purple)

How often do you use electronic health records or similar patient/client electronic records?
- Never: 3%
- Occasionally: 3%
- Frequently: 9%
- All the time: 84%

How often do you diagnose or consult with patients or clients in real-time using dedicated telemedicine equipment?
- Never: 71%
- Occasionally: 16%
- Frequently: 7%
- All the time: 6%

- The 2017-2018 questionnaire included items about the use of both electronic health records (EHRs) and dedicated telemedicine equipment. Among RNs who reported seeing patients, the results showed a majority of RNs use EHRs "all the time" (84 percent).

- When asked how often telemedicine is used to deliver patient care, most RNs reported **not** using telemedicine equipment in their practice (71 percent). The use of telemedicine by providers is not always reimbursable by private insurance carriers.
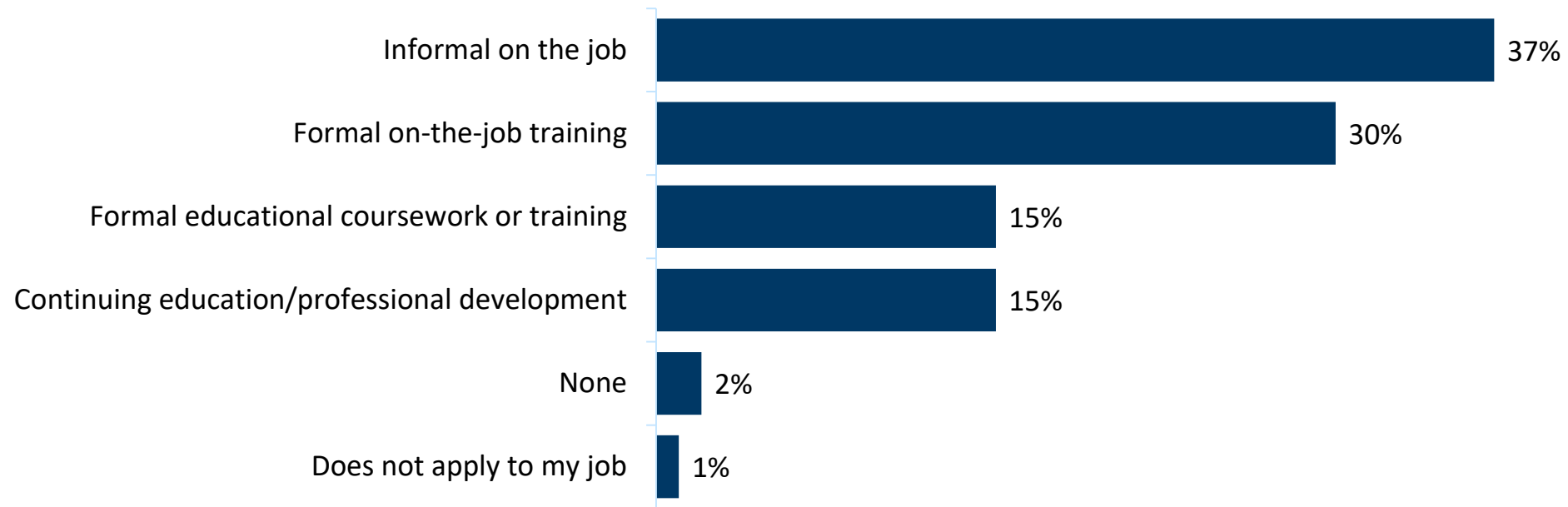
At Work: Teamwork

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

Category	Percentage
Informal learning on the job	44%
Formal on-the-job training	34%
Formal educational coursework or training	10%
Continuing education/professional development	9%
None	2%
Does not apply to my job	1%
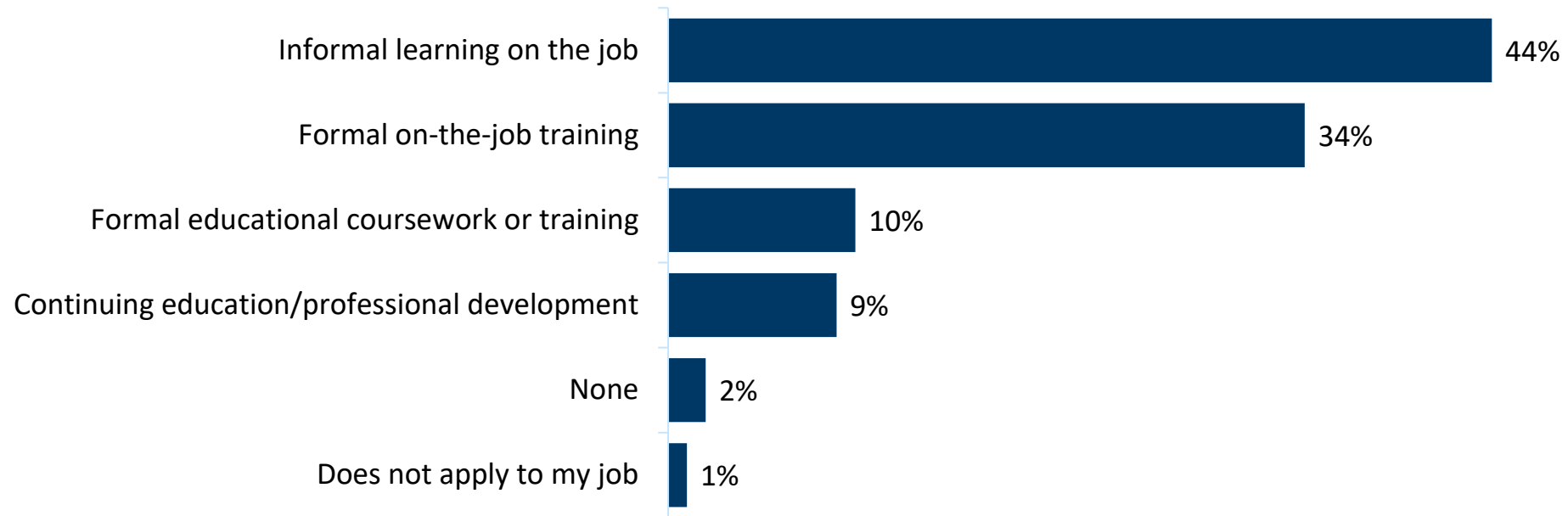
- Health care providers increasingly work in multidisciplinary teams, prompting educators and health policymakers to ask how best to train providers to communicate and coordinate across professions. In 2017-2018, MDH added a question to the workforce survey about multidisciplinary team work. As shown above, 78 percent of RNs reported that learning on the job (either informal or formal) ***best*** prepared them to work in multidisciplinary teams.
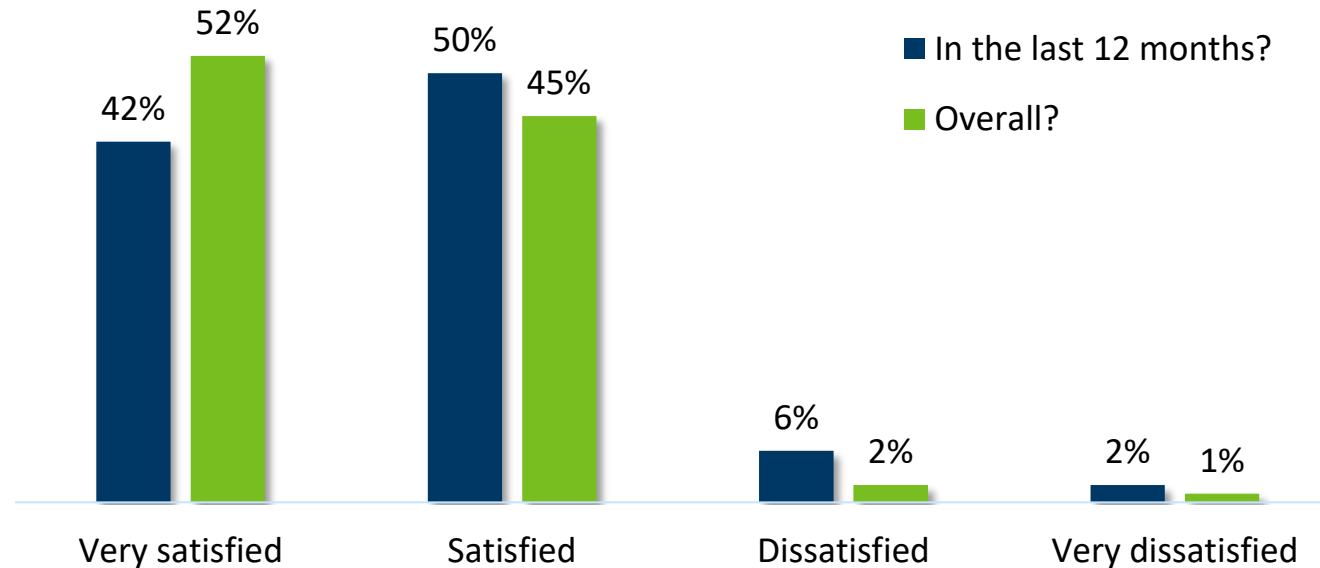
At Work: Cultural Competence

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

Category	Percentage
Informal on the job	37%
Formal on-the-job training	30%
Formal educational coursework or training	15%
Continuing education/professional development	15%
None	2%
Does not apply to my job	1%

- A question about the best way to prepare the health care workforce to provide "culturally competent" care was also added to the survey. As shown above, RNs most commonly indicated that formal or informal learning **on the job** (67 percent) provided the best preparation for working with diverse groups of patients.
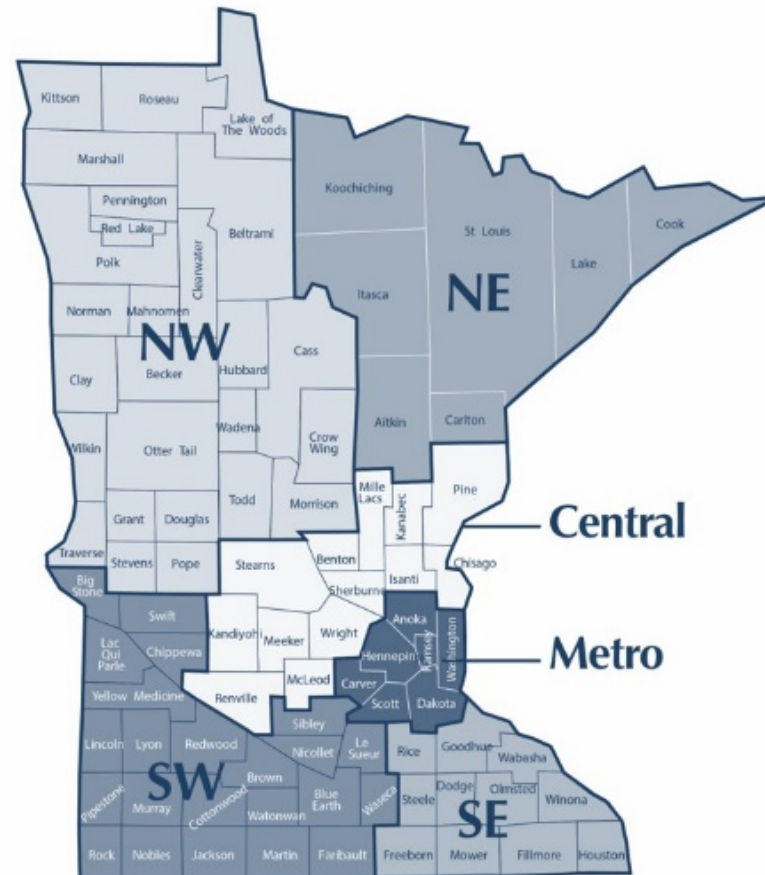
At Work: Career Satisfaction

How satisfied have you been with your job…

Legend:
- In the last 12 months?
- Overall?

	Very satisfied	Satisfied	Dissatisfied	Very dissatisfied
In the last 12 months?	42%	50%	6%	2%
Overall?	52%	45%	2%	1%

- As shown above, the majority of RNs reported being either "somewhat satisfied" or "very satisfied," in the past 12 months and overall. Over half of RNs were more likely to report being very satisfied with their career overall compared to the last 12 months—a trend typical among other health care professionals for whom 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.

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A Way of Looking at Geography

By State Planning Areas

For more information:

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

MN Regional Distributions of RNs

Share of Registered Nurses by State Planning Region

7-County Metro
- 2017 Population: 55%
- RNs: 56%

Southeast Minnesota
- 2017 Population: 9%
- RNs: 15%

Central Minnesota
- 2017 Population: 13%
- RNs: 9%

Northeast Minnesota
- 2017 Population: 6%
- RNs: 7%

Northwest Minnesota
- 2017 Population: 10%
- RNs: 7%

Southwest Minnesota
- 2017 Population: 7%
- RNs: 6%

Legend: ■ 2017 Population ■ RNs
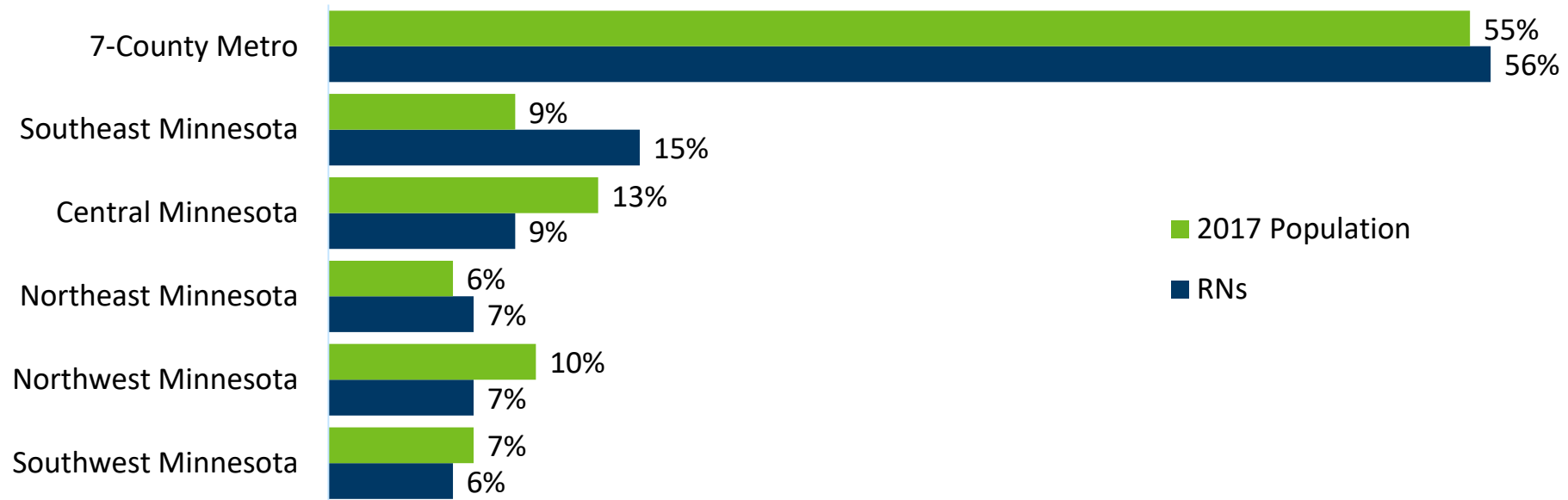
- Over half of all RNs work in the 7-County Metro area, with another 15 percent in the Southeast region, which is likely reflecting the presence of the Mayo Clinic in Rochester.

- With the exception of the Northeast region, the Central, Northwest, and Southwest regions all have smaller percentages of RNs relative to the population residing there, indicating there may be an unmet need for RNs.

Source: Minnesota Board of Nursing, July 2019. MDH cleans and geocodes all addresses to identify location of practice. The chart above is based on 56,051 valid Minnesota business addresses reported during license renewal; 34,228 responses were unable to be geocoded, either because the respondent reported an out-of-state address or did not report an address as all to the MN Board of Nursing. Missing addresses are assumed to be randomly distributed throughout the state and should not affect regional percentages. 2017 population data are from MN State Demographic Center: https://mn.gov/admin/demography/

Methodology

The data in this report come from two sources:

- The **Minnesota Board of Nursing (MBN)** provides data on the *entire population* of Registered Nurses (RNs) who have active licenses in the state of Minnesota. MBN maintains this database and 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 July 2019. At that time, there were a total of 104,355 RNs with *active* Minnesota licenses, approximately 54 percent of whom indicated that their primary business address was in Minnesota. MDH ORHPC analysts clean organize, clean, and geocode addresses that come from the board to identify practice locations (shown in slide 19).

- The **2017-2018 MDH ORHPC RN Questionnaire** collects additional demographic and workforce data from RNs. MDH ORHPC administered the survey to all RNs who renewed their Minnesota license in the calendar years of 2017-2018. A total of 69,600 responses to the workforce questionnaire were received; a response rate of 67 percent.

- See the ORHPC website for more details about the survey methodology (https//www.health.state.mn.us/data/workforce/method.html).

Notes

Visit our website at Reports on Workforce
to learn more about the Minnesota health care workforce.

County-level data for this profession is available at MN Health Professions by County Data

Minnesota Department of Health
Office of Rural Health and Primary Care

85 East 7th Place, Suite 220
Saint Paul, MN 55117
(651) 201-3838
health.orhpc@state.mn.us

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