

Minnesota's Pharmacist Workforce

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Office of Rural Health and Primary Care



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Introduction to Minnesota's Pharmacist Workforce

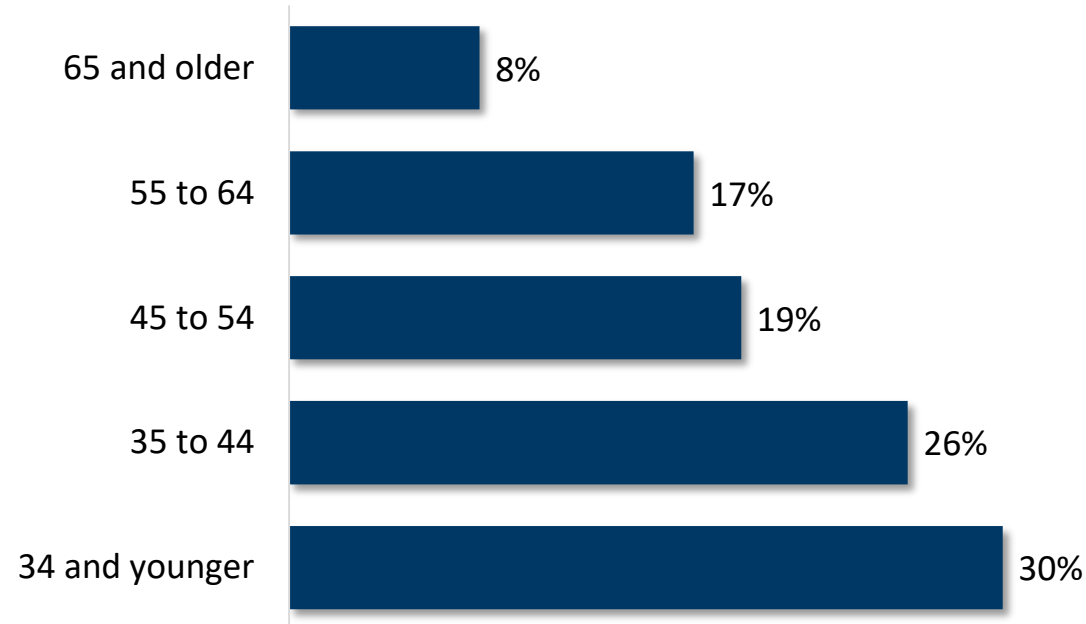
- Pharmacists are licensed health care professionals who dispense, prepare, and compound medications based on physician orders. They are trained to identify potential drug interactions, and counsel patients on medication management and safety.
- The role of a pharmacist has evolved and expanded with the changes in our healthcare system—pharmacists can now provide other services such as immunizations, smoking cessation, blood pressure monitoring, and cholesterol management services. Pharmacists work in a variety of settings such as research labs or pharmacies located in communities, retail stores or hospitals.
- As of January 2018, there were **8,926** actively licensed pharmacists in Minnesota. Survey data included in the report are from the 2017-2018 pharmacist license renewal period.
- Learn more about the pharmacist's legal scope of practice and pharmacy laws in Minnesota at the [Minnesota Board of Pharmacy website](http://mn.gov/boards/pharmacy/statutes) (mn.gov/boards/pharmacy/statutes)

Highlights

- As of January 2018, there were **8,926** actively licensed pharmacists in Minnesota ([see slide 3](#)). The majority of pharmacists worked in the Twin Cities region ([slide 22](#)).
- Two out of five pharmacists reported spending more than half their time caring for patients or clients while nineteen percent reported not holding a position that involved direct patient care.
- Pharmacists work in a wide variety of settings, but most worked in hospitals or chain pharmacies. Three percent of all pharmacists reported owning (or co-owning) their own business.
- Seventy-four percent of pharmacists said they plan to continue practicing for at least another ten years ([slide 13](#)).
- Rural pharmacists are older than urban pharmacists. Twelve percent of pharmacists in rural isolated areas are 65 or older compared to 4 percent in urban areas.
- Forty-one percent of pharmacists were educated in Minnesota, indicating that many in the workforce are educated in schools outside the state.
- The majority of pharmacists indicated they were “somewhat satisfied” or “very satisfied” with both their job in the last 12 months and their career overall. Pharmacists working in chain pharmacies, supermarkets or mass merchandiser pharmacies reported the lowest levels of satisfaction.

Demographics: Age and Sex

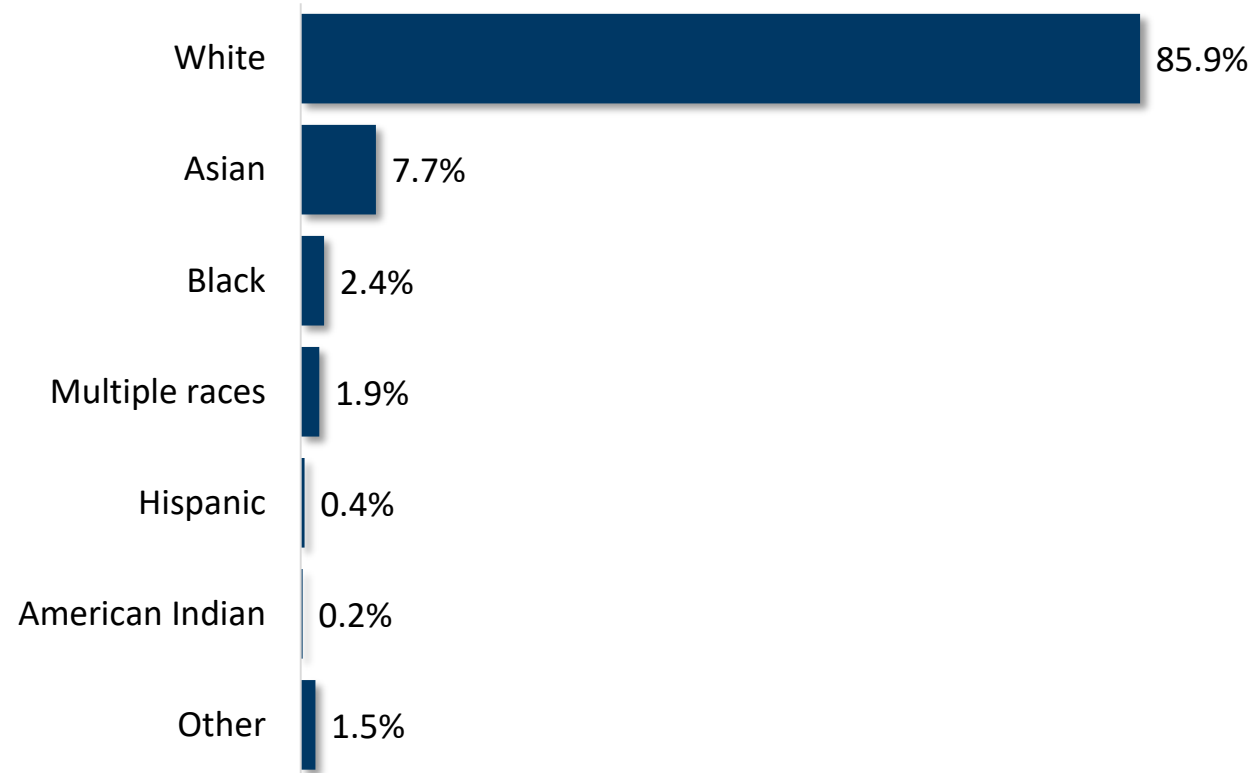
Age of Minnesota Pharmacists



- The median age of a pharmacist was 42. As a group, pharmacists are similar in age to the Minnesota workforce overall (41) and are younger than some other Minnesota health care professionals such as physicians (whose median age is 50).
- While aging is a concern in many professions and the workforce as a whole, there are noteworthy proportions of younger pharmacists—56 percent—who are under age 45.
- With a few exceptions, health care professionals are predominantly female and this is true for pharmacists as well. Sixty percent of all Minnesota pharmacists are female. Female pharmacists outnumber male pharmacists in all age groups except those 65 and older (data not shown).

Demographics: Race and Ethnicity

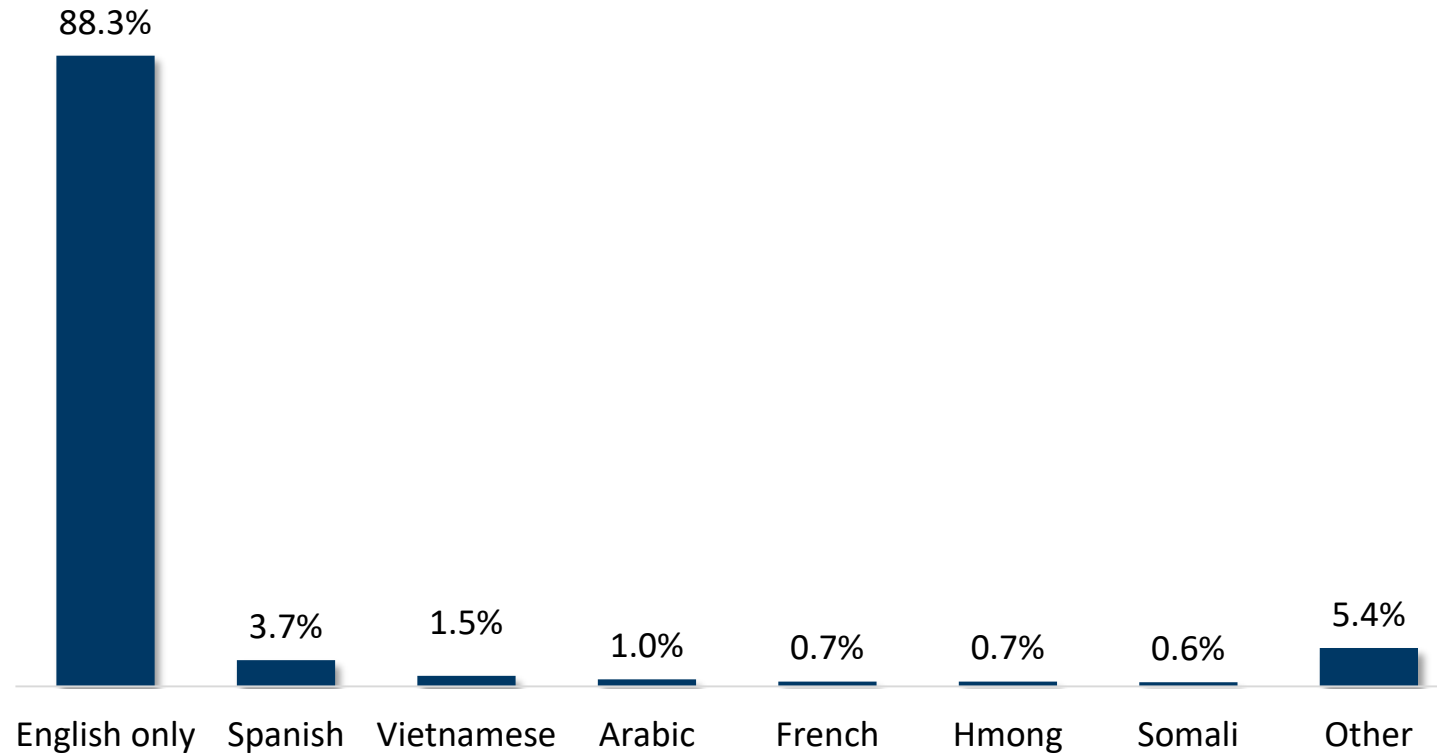
Race of Minnesota Pharmacists



- Typical of racial patterns among Minnesota’s health care professionals, the majority of pharmacists indicated they were white. About 8 percent of pharmacists identified as Asian, and small shares identified as Black or multiple races.
- Younger pharmacists were the most diverse. Eighty-three percent of pharmacists younger than 35 indicated they were white compared to 91 percent of pharmacists age 55 to 64.

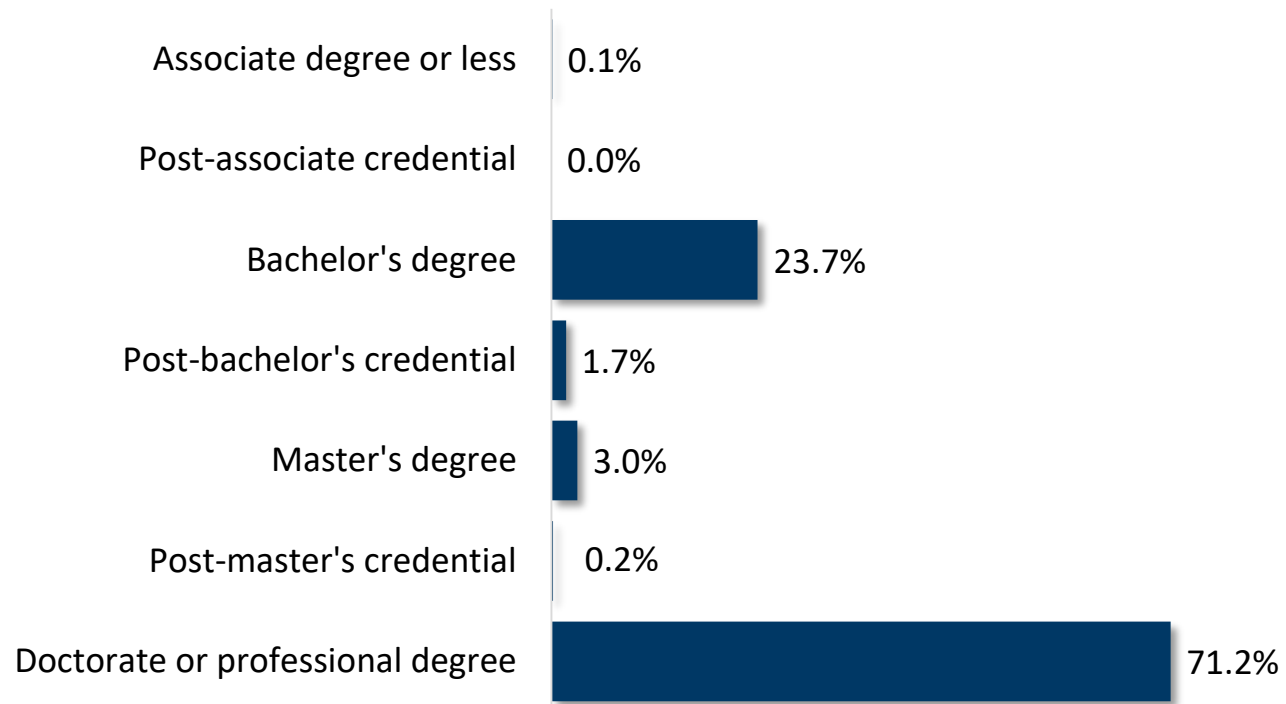
Demographics: Languages Spoken in Practice

Languages Spoken by Minnesota Pharmacists in their Practices



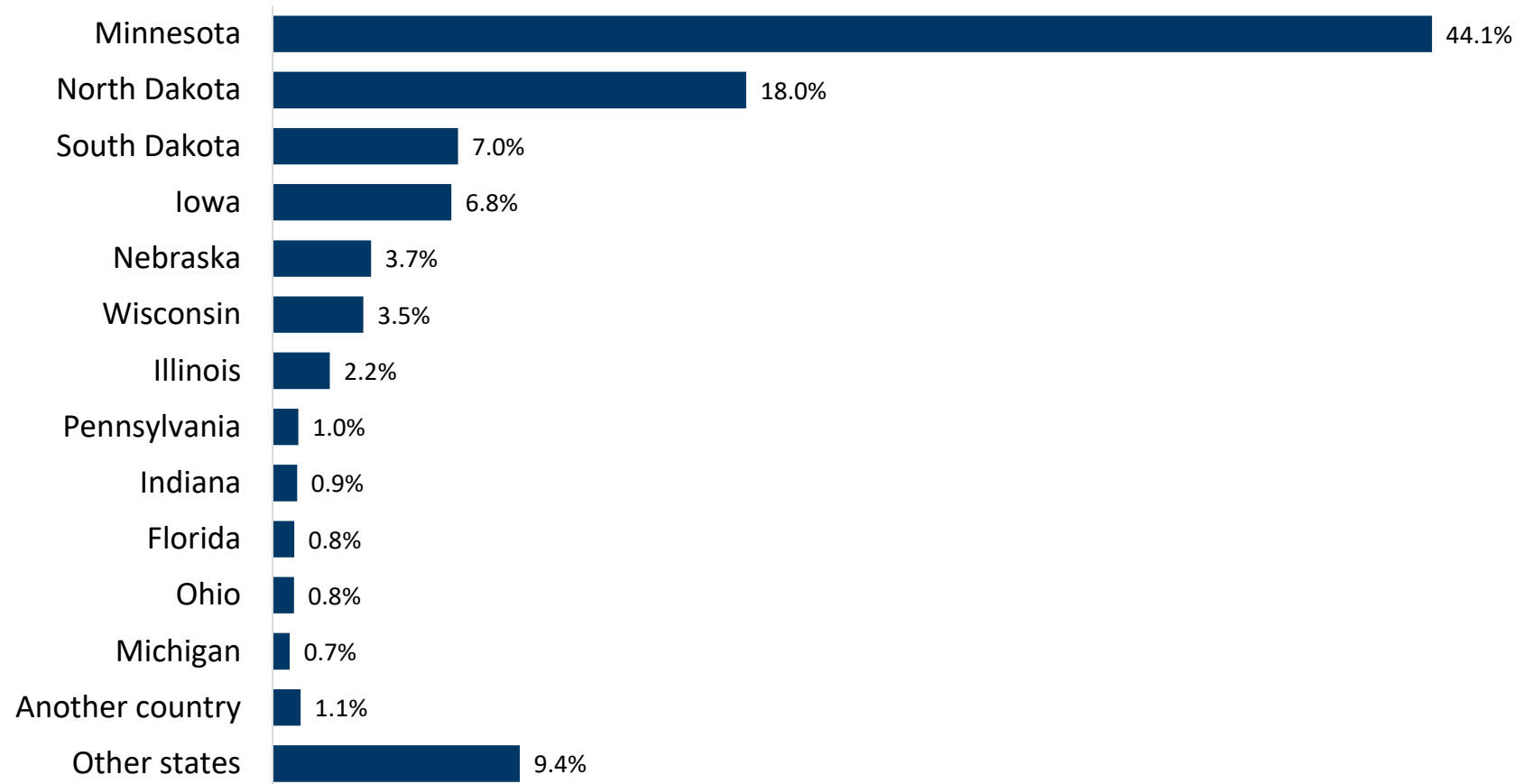
- The majority of pharmacists spoke only English in their practices. The second most commonly spoken language was Spanish. Less common languages included Vietnamese, Arabic, French, Hmong, and Somali. Five percent of pharmacists also spoke other languages.

Education: Educational Attainment



- Nearly three-quarters of all Minnesota’s pharmacists have a doctorate or a professional degree. Younger pharmacists are more likely to have a doctorate or professional degree while those 55 or older are more likely to have a bachelor’s degree. Only two degrees allow an individual to become a licensed pharmacist; a Bachelor of Science in Pharmacy and a Doctor of Pharmacy.
- When asked how likely they were to pursue additional training or credentials to advance in their field, about 9 percent of pharmacists said they were “very likely” to enroll and 3 percent were “currently enrolled” in a training program. Most were interested in becoming certified in a pharmacy specialty area.

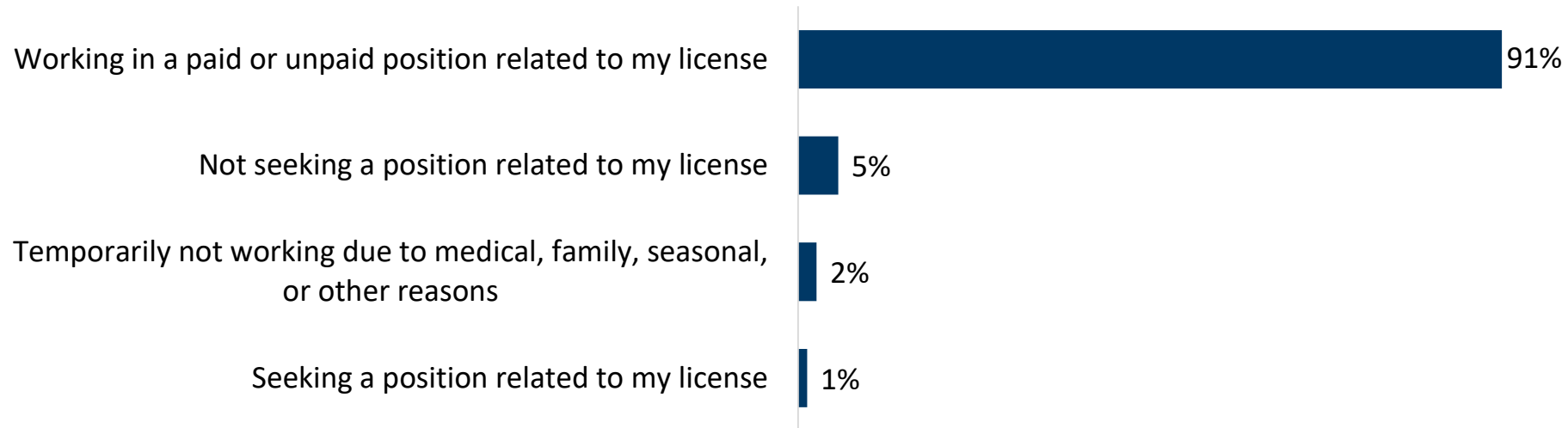
Education: Location of Institution



- About two out of five (44 percent) pharmacists earned their degree in Minnesota, indicating that many of its licensed pharmacists were educated in schools outside the state. Minnesota's pharmacists reported having trained in every state in the US and even in other countries. Midwestern states were the other most common locations.

Employment

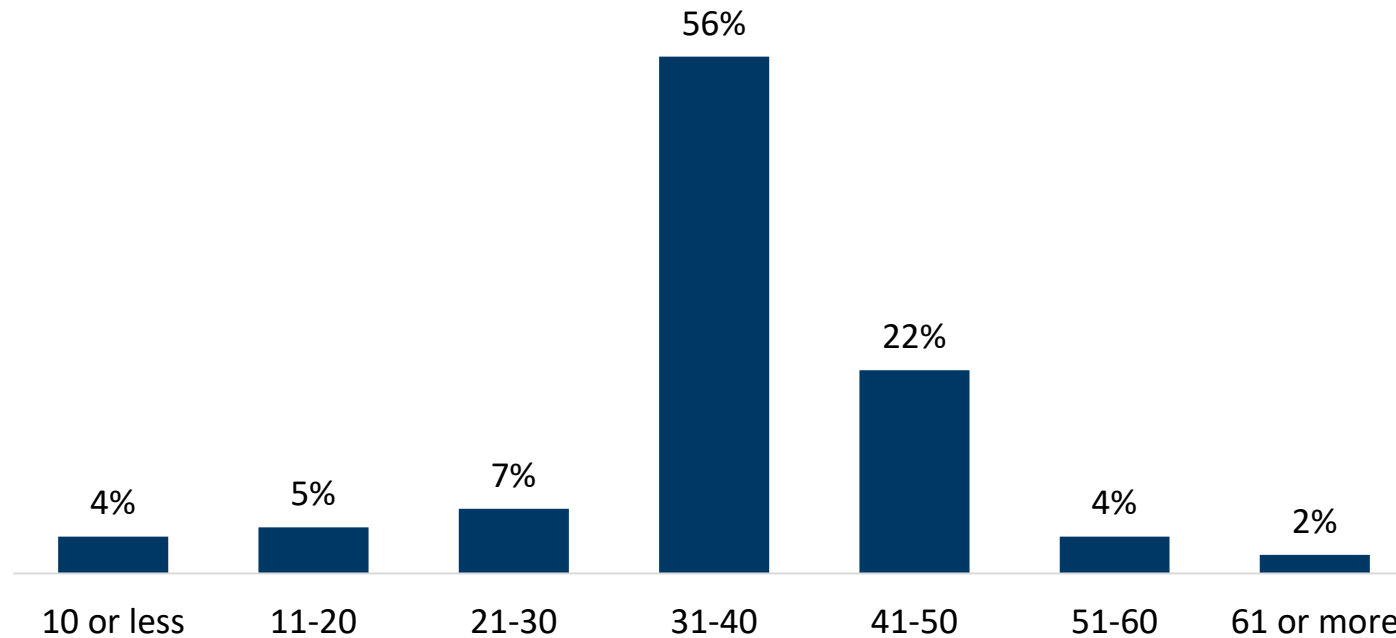
Pharmacists' Work Status



- Ninety-one percent of pharmacists reported that they were “working in a paid or unpaid position related to [their] license.” Five percent of pharmacists were not seeking a position as a pharmacist, followed by those not working temporarily (2%).
- Job vacancy information from the Minnesota Department of Employment and Economic Development (DEED) helps provide additional context on the employment outlook for pharmacists. In the fourth quarter of 2018, there were 41 job openings for pharmacists (a vacancy rate of 0.6%, i.e., the percent of openings for all pharmacist jobs). The overall job vacancy rate for all occupations is 4.9 percent, which is a historically high number indicating many open positions and a tight labor market. The low job vacancy rate for pharmacists indicates pharmacists looking for work may have trouble finding a job.

Employment: Hours Worked

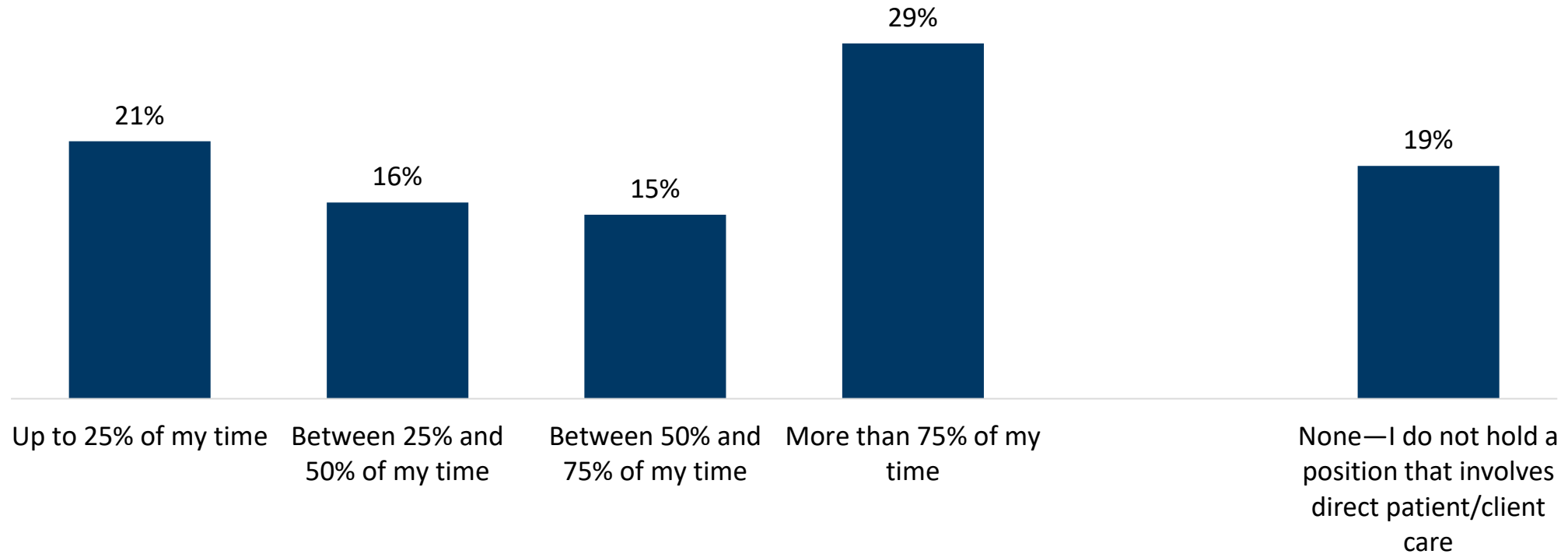
Hours Worked in a Typical Week



- The median work week for pharmacists was 40 hours. While over half of pharmacists worked between 31 and 40 hours per week, 22 percent worked longer hours—between 41 and 50 hours per week.
- Eighty-three percent of pharmacists worked full-time, with the remaining 17 percent reporting part-time employment.

Caring for Patients

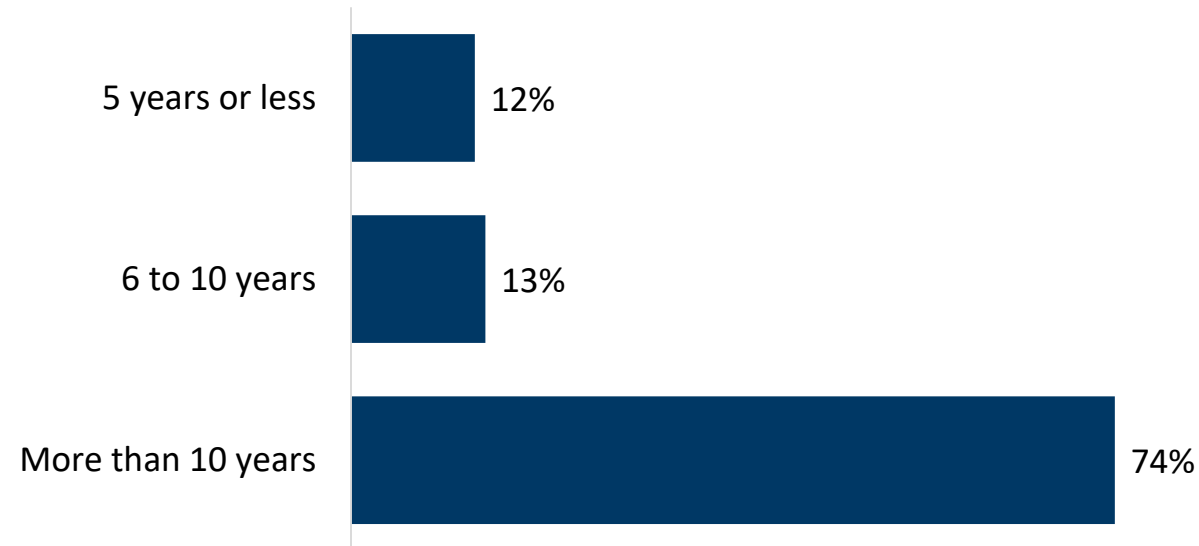
Time Spent Caring for Patients and Clients



- Unlike other health care professions that spend the majority of their time caring for patients, pharmacist reported a variation—only 29 percent spent more than three quarters of their time caring for patients and clients. Nineteen percent did not hold a position involving patient care.

Employment: Future Plans

“How long do you plan to continue practicing as a pharmacist in Minnesota?”



- With 74 percent reporting they plan to work as a pharmacist for more than 10 years, there is a relatively stable workforce for the foreseeable future. As such, pharmacists can be relied on to support health care in the coming years.
- Those planning to work 5 years or less were asked to identify their main reasons for doing so. Eleven percent of working pharmacists plan to leave the workforce to retire and one percent plan to leave the profession due to burnout or dissatisfaction.

Pharmacists at Work: Specialties



- The questionnaire asked pharmacists to identify their specialty areas. While 54 percent reported no specialty, the most common specialties were ambulatory care followed by pharmacotherapy.
- Sixteen percent of pharmacists reported other specialties. Pharmacists' most common "other" specialties were geriatrics, informatics, long-term care, managed care, administrative, infectious disease, and compounding. Of note, ten pharmacists mentioned specializing in medical cannabis.

Pharmacists at Work: Work Settings

Pharmacists' Primary Work Settings

Setting	Share of Pharmacists Working in this Setting
Hospital	29%
Chain pharmacy	22%
Clinic/Professional Office/Health Center/Ambulatory Care	13%
Independent community pharmacy	7%
Insurance/Benefits Management Organization	5%
Supermarket or mass merchandiser pharmacy	4%
Community/Faith-Based Organization	3%
Academic (teaching/research)	3%
Long-Term Care Facility	2%
Mail service pharmacy	1%
Compounding pharmacy	1%
Centralized service pharmacy	1%
Home Health Care	1%
Other	8%

The questionnaire asked pharmacists to identify the number of locations where they work as well as the types of work settings.

- The majority of pharmacists worked at just one location (73 percent).
- Pharmacists most commonly reported working in hospitals or chain pharmacies.
- Three percent of all pharmacists owned (or co-owned) their own business. Of these, 53 percent reported their primary practice setting as an independent community pharmacy. Fifteen percent also reported running their own consulting or research business.

Source: MDH Pharmacist Workforce Questionnaire, 2017-2018. The survey includes questions on both the “primary” and “secondary” settings in which providers work. For the purposes of the analysis in this section, we present data only on the setting pharmacists reported as their “primary” setting. An analysis of Pharmacists’ work settings indicates that the types of settings in which pharmacists worked did not differ depending on whether they were primary or secondary.

Pharmacists at Work: Services Provided

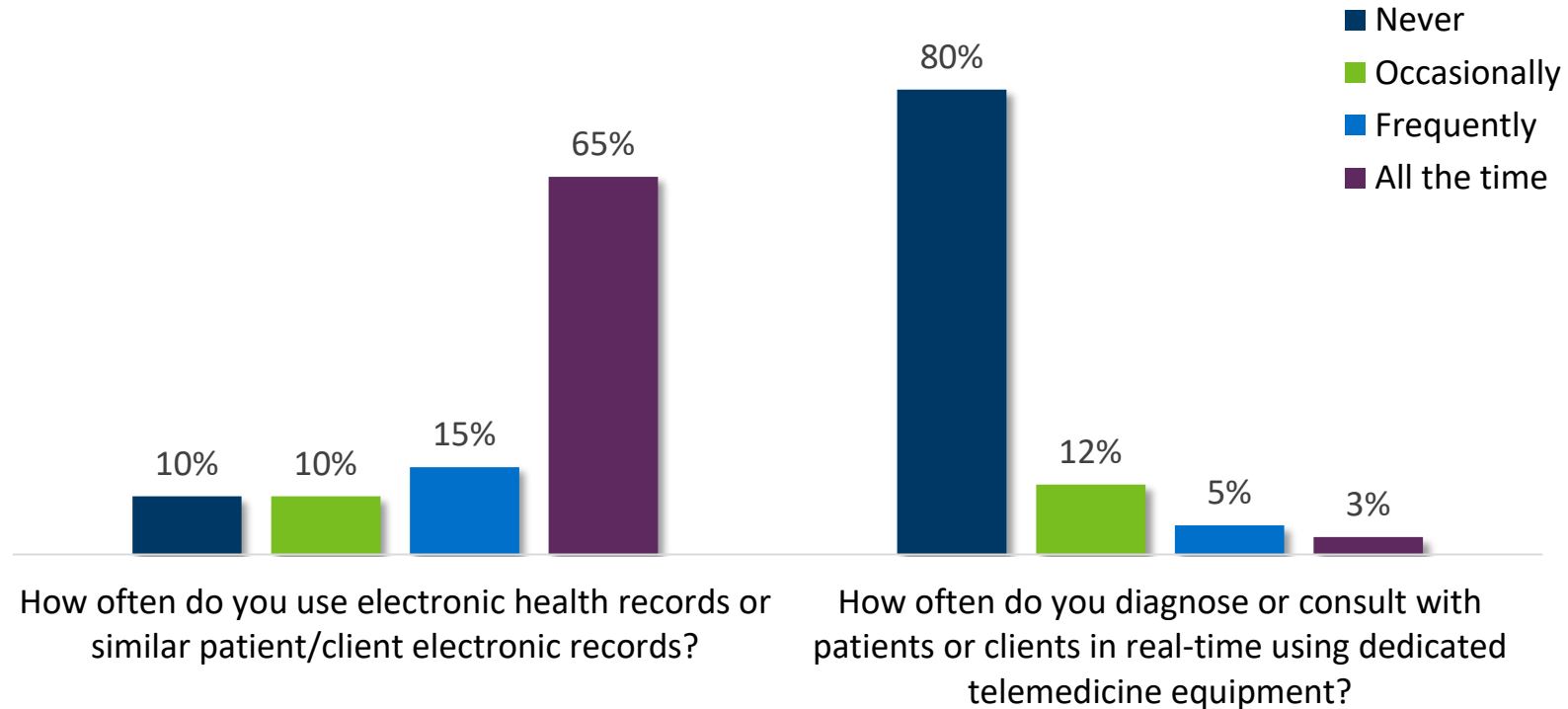
Pharmacists' Services Provided at Primary Location

Service	Share of pharmacists providing service
Adjusting medication therapy	56%
Medication reconciliation	54%
Immunization	50%
Medication therapy management services	46%
Disease state management	38%
Services allowed through collaborative practice agreements	35%
Ordering lab testing	32%
Discharge counseling	29%
Complex sterile compounding	22%
Complex non-sterile compounding	20%
Health screening or coaching	20%
Point of care testing	10%

- More than half of pharmacists reported spending their time adjusting medication therapies or reconciling medications (comparing new orders to all medications the patients have been taking).
- Immunizations and medication therapy management (MTM) were also common services provided. MTM is for people with multiple chronic diseases and medications. The process can help both support patients in taking their medications and identify and prevent medication interaction problems, leading to better patient outcomes.

Pharmacists at Work: EHRs and Telemedicine

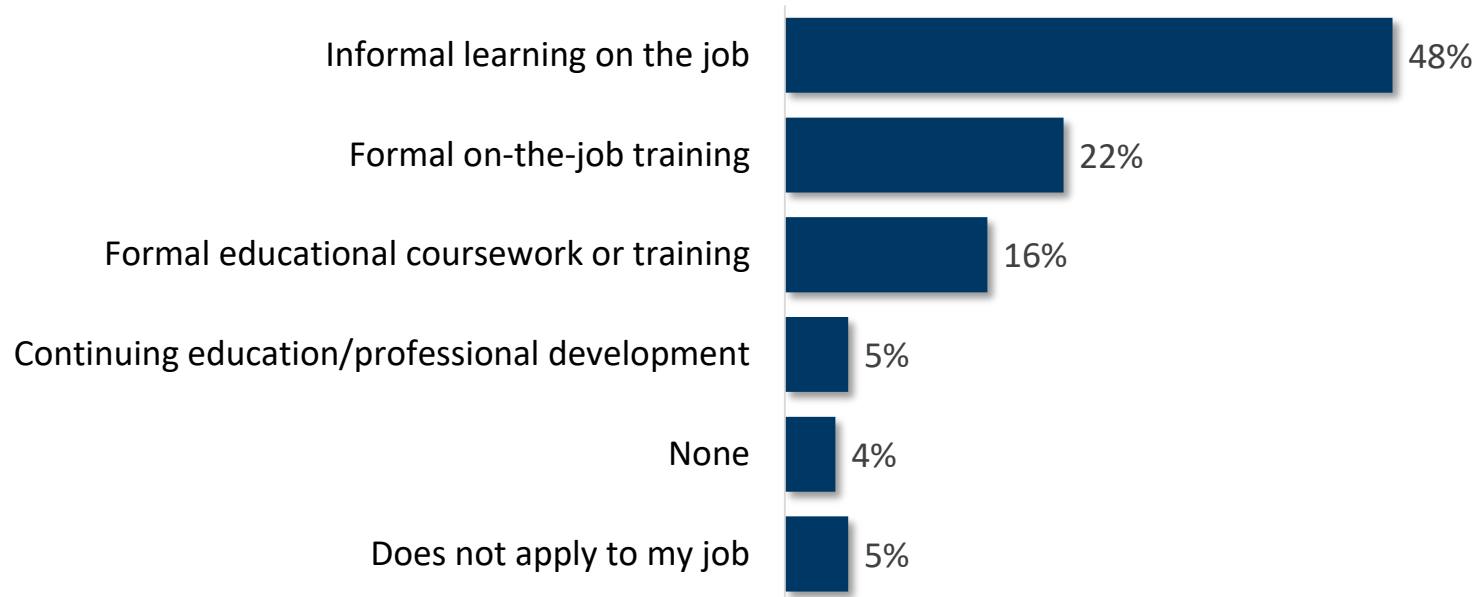
Pharmacists' Use of Electronic Health Records and Telemedicine Equipment



- The questionnaire included items about the use of both electronic health records (EHRs) and dedicated telemedicine equipment. The results showed a majority of pharmacists use EHRs “all the time,” but most do not use telemedicine equipment regularly.

Pharmacists at Work: Teamwork

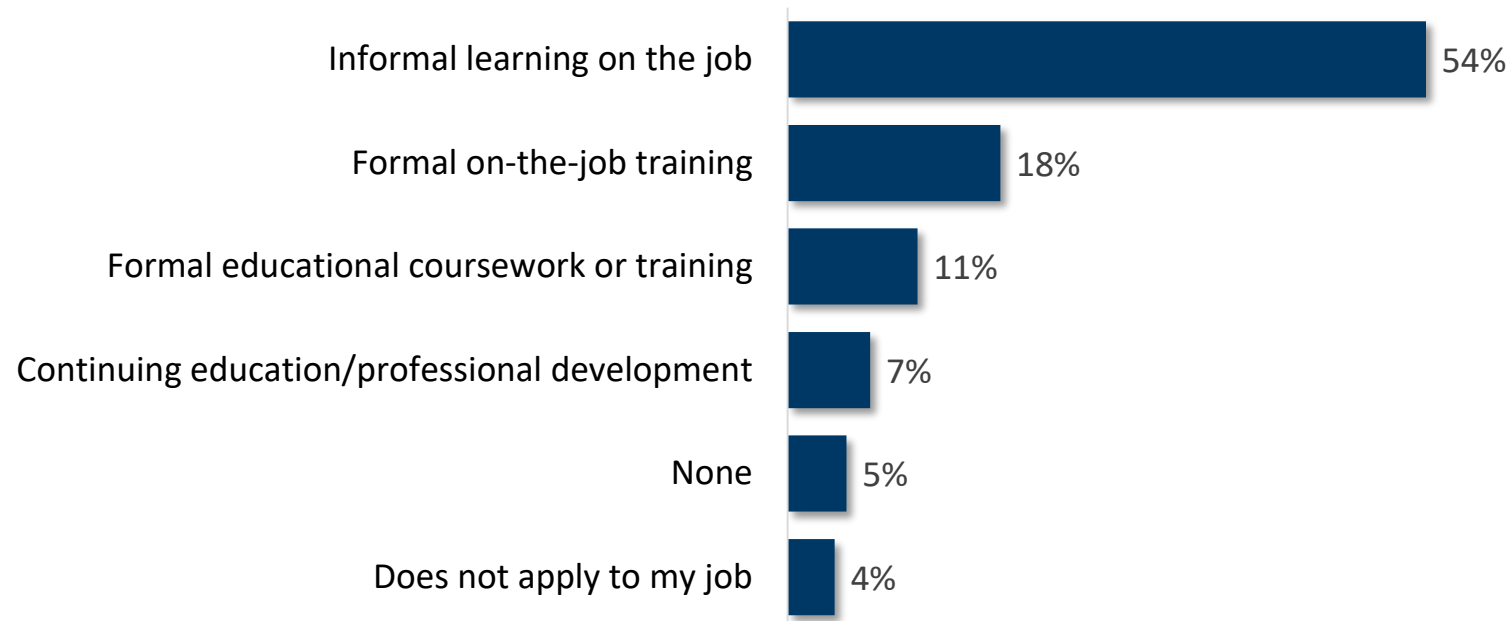
“Which of the following work or educational experiences best prepared you to work in a multidisciplinary team when providing care?”



- Health care providers increasingly work in multidisciplinary teams, prompting educators and health policymakers to ask how to train providers to work well across professions. MDH included a question on its questionnaire to shed light on these concerns. Pharmacists reported informal learning on the job best prepared them to work in team care.

Pharmacists at Work: Cultural Competence

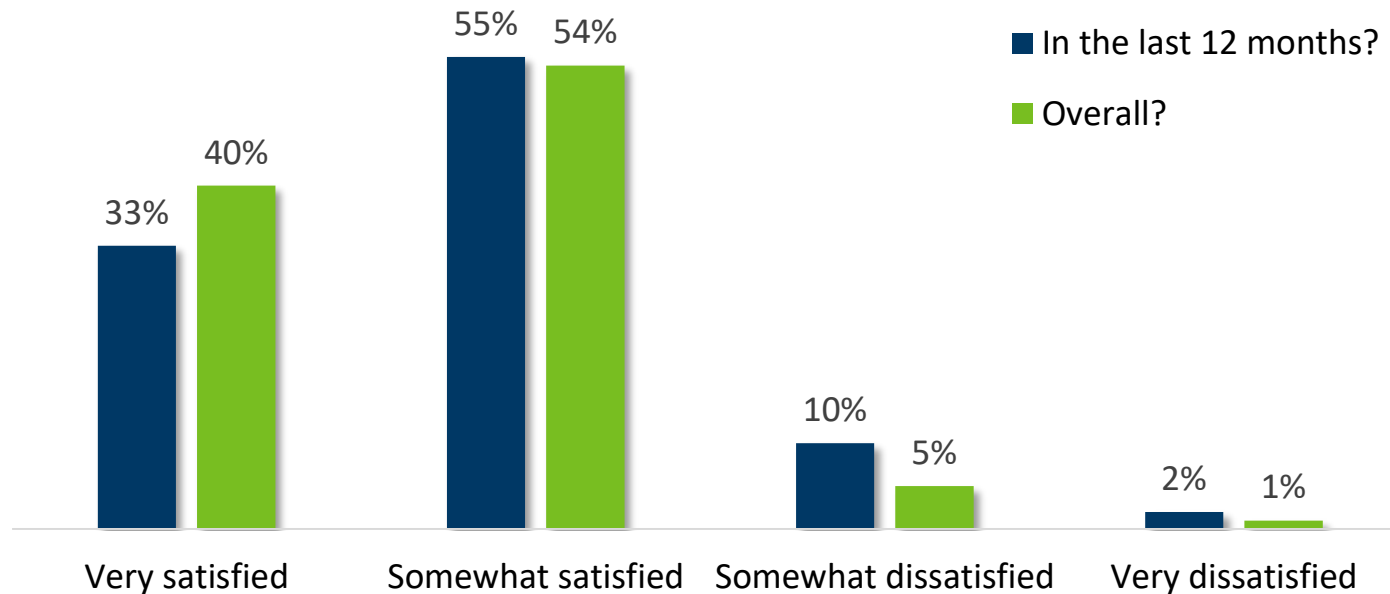
“Which of the following work or educational experiences best prepared you to provide culturally competent care?”



- Pharmacists most commonly report informal learning on the job best prepared them to provide culturally competent care.

Pharmacists at Work: Job and Career Satisfaction

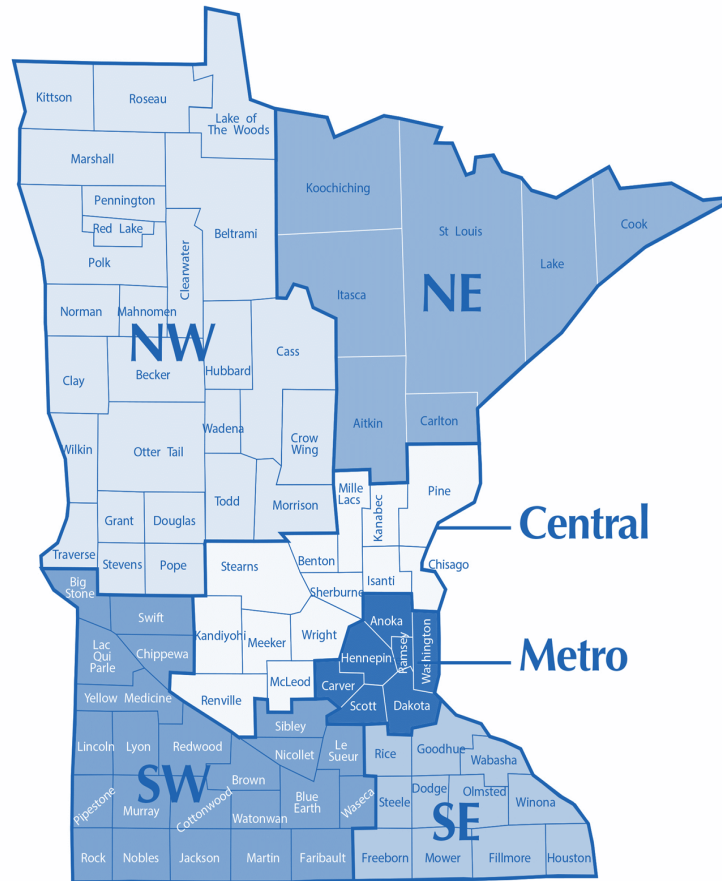
How satisfied have you been with your job....



- Pharmacists were satisfied with their jobs overall. Pharmacists reported higher levels of dissatisfaction in the past 12 months when working in chain pharmacies (21%), supermarkets or mass merchandiser pharmacies (17%) than pharmacists working in other settings.
- Pharmacists commented they got the most satisfaction from helping patients, especially when they could work directly with them. Many also mentioned enjoying using their knowledge to improve patient care and working as a team with doctors and other health professionals.
- Pharmacists most commonly reported their dissatisfaction was due to insurance issues, workload, and stress. Understaffing was also frequently mentioned related to dissatisfaction, along with bureaucracy, over-regulation, and drug shortages.

Geographic Distribution

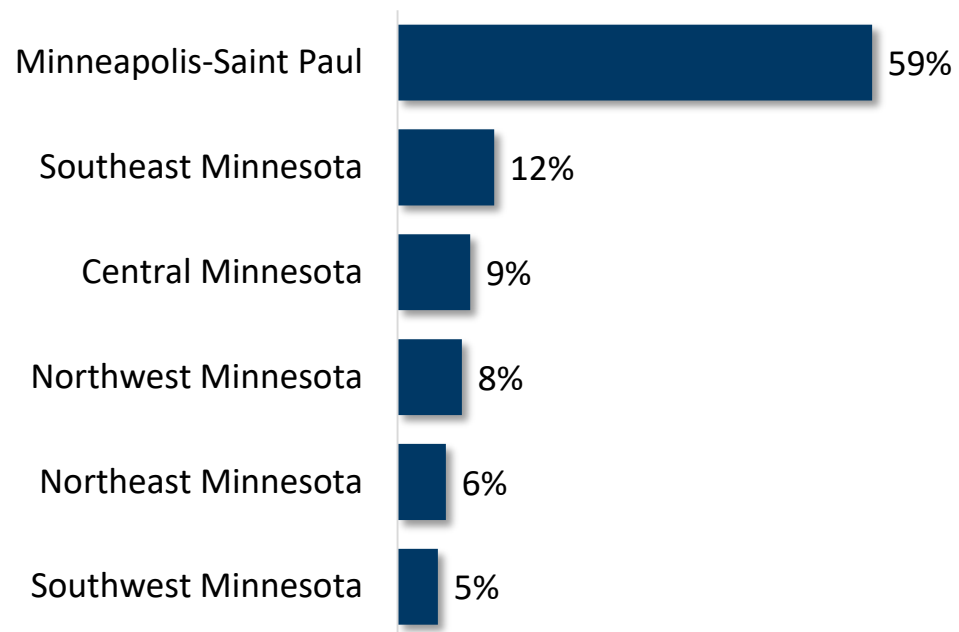
By state planning areas



State Planning Areas: <https://www.health.state.mn.us/data/workforce/method.html>

Geographic Distribution: by Planning Area

Share of Pharmacists by State Planning Area



- The highest percentage of pharmacists reported working in the Twin Cities metro area. Twelve percent reported working in the Southeast region, reflecting the prominence of the Mayo Clinic in Rochester. The remainder of the state is home to significantly smaller shares of pharmacists.
- Pharmacists are slightly over-represented in the Minneapolis-St. Paul area, which has 59 percent of pharmacists compared to 54 percent of the state's population.
- Twenty-three percent of working pharmacists listed a primary practice address outside Minnesota.

Methodology

The data in this report come from two sources:

- The **Minnesota Board of Pharmacy** provides data on the entire population of pharmacists who have active licenses in the state of Minnesota. The board maintains this database primarily for administrative purposes. The board 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 January, 2018. At that time, there were a total of 8,926 pharmacists with active Minnesota licenses.
- The 2017-2018 Minnesota Department of Health-Office of Rural Health and Primary Care (MDH-ORHPC) Pharmacist Workforce Survey collects additional demographic and workforce data from pharmacists. MDH-ORHPC administered the survey to all pharmacists who renewed their Minnesota license during the 2017- 2018 license renewal process from December to February. The response rate was 89.7 percent.

Notes

Visit our website at

<http://www.health.state.mn.us/divs/orhpc/workforce/reports.html>
to learn more about the Minnesota health care workforce.

County-level data for this profession is available at

<http://www.health.state.mn.us/divs/orhpc/workforce/database/>

**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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