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Senator Michelle Benson, 31
Senator Mary Kiffmeyer, 30
Senator Tony Lourey, 11
Senator Melissa Wiklund, 50

REPRESENTATIVE TOM HUNTLEY, 07A
Representative Jason Isaacson, 42B
Representative Tara Mack, 57A
Representative Gene Pelowski, 28A
Representative Joe Schomacker, 22A

88TH LEGISLATIVE SESSION

THE LEGISLATIVE HEALTH CARE WORKFORCE COMMISSION

2014
Report and Recommendations on Strengthening Minnesota's Health Care Workforce

December, 2014

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I. Commission Charge and Background

Commission Charge and 2014 Work Plan

> *"Many policy levers that affect the supply, distribution and skill mix of the health workforce are state-based, including licensure and scope of practice regulations, state loan repayment programs, and Medicaid reimbursement rates. State-level decisions about whether to enact or change policies directed at training, recruiting, and retaining health professionals affect a wide range of stakeholders…."*
>
> *-Dr. Erin Fraher, Director of the North Carolina Health Professions Data System*

The 2014 Legislature created the Legislative Health Care Workforce Commission to study and make recommendations to the legislature on how to achieve the goal of strengthening the workforce in health care and gave it the following charge:

- Identify current and anticipated health care workforce shortages, by both provider type and geography.
- Evaluate the effectiveness of incentives currently available to develop, attract, and retain a highly skilled health care workforce.
- Study alternative incentives to develop, attract, and retain a highly skilled and diverse health care workforce.
- Identify current causes and potential solutions to barriers related to the primary care workforce, including, but not limited to:
    - training and residency shortages;
    - disparities in income between primary care and other providers; and
    - negative perceptions of primary care among students.

The Commission legislation directed it to provide a preliminary report making recommendations to the legislature by December 31, 2014, and a final report by December 31, 2016.

This document is the Commission's 2014 preliminary report to the Legislature. It includes an overview of Minnesota's health care workforce and recommendations to the 2015 Legislature.

Over the next two years the Commission will continue to track changes in the health care delivery system that will impact the supply and demand of the workforce and the changing nature of the jobs of health professionals from physicians to medical assistants. Key trends the Commission will monitor include the growing use of team care models, the expansion of health care homes and accountable care organizations, and the development and growth of new health care occupations such as community paramedics. The Commission will also explore issues facing additional health professions. The Commission will produce a final report to the legislature and sunset December 31, 2016.

The Commission held seven meetings during 2014. It received support from legislative staff and the Minnesota Department of Health (MDH). The Commission heard presentations and testimony from:

- Higher education institutions
- Professional and industry associations and employers
- State agencies

- Legislative staff
- Health professions students and practicing physicians

Planning Framework

At its first meeting the Commission reviewed a planning framework for its work, starting with identifying future demand for health care workers (X), projecting supply (Y), and finally, determining the gap between demand and supply (Z) to suggest strategies that could close the gap between future need and future supply.

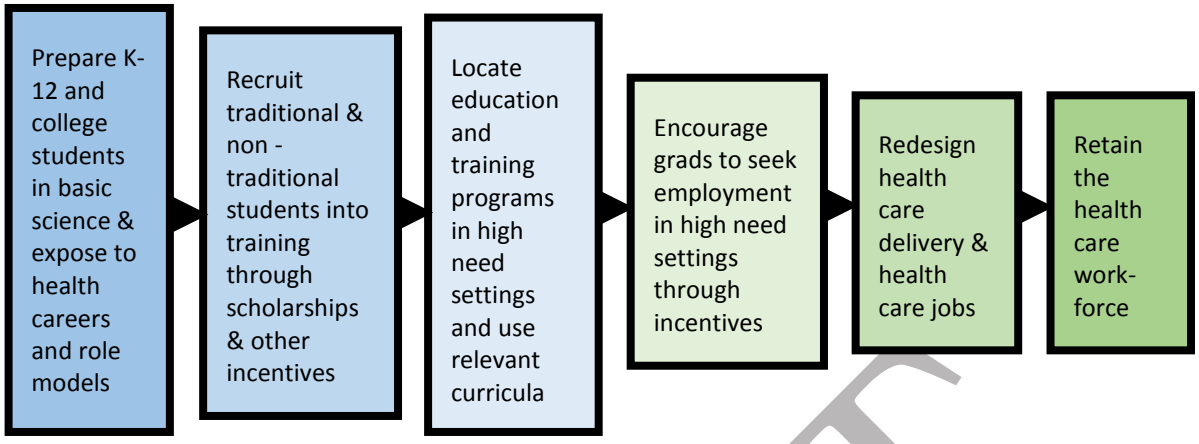
Projected health workforce needs (X) -	Projected supply/production (Y) =	Projected gap (Z)

1. **Projected health workforce needs (X).** Minnesota *need*s "X" number of workers (MD, RN, lab tech, etc.) per year to meet demand based upon demand factors such as:
   - Age of the population and the health care workforce
   - Population growth
   - Changes in coverage
   - Other
2. **Projected supply/production (Y).** Minnesota *expects* "Y" number of workers per year through:
   - Production (education and training)
   - Relocation/in-migration
3. **Projected gap in health care workers (Z).** Identified *strategies* to fill the gap include:
   - Investments/incentives (federal, state, employer, higher education, etc.)
   - Role of technology & delivery system redesign
   - Regulatory changes

   The Commission further grouped types of potential strategies as follows:
   - Already underway – continue as is
   - Revise or redirect current resources
   - No (direct) cost strategies - regulatory & system changes
   - New or expanded funding required (direct appropriation or tax changes)
   - Provide encouragement – e.g., best practices, innovative models, etc.

The Commission also explored how each of the steps along the "workforce development pipeline" depicted below contribute to producing Minnesota's current and future health workforce.

Health Workforce Development Pipeline



The Commission's 2014 meetings and work explored these issues of supply, demand and the workforce development pipeline through presentations and testimony from health workforce educators, students, employers and other resource people and stakeholders to produce this overview and set of recommendations. The Commission examined a range of possible strategies, including expansion, contraction or revisions to existing programs, investment in new strategies, tax credits and regulatory changes such as scope of practice modifications.

Bottlenecks at each stage of the workforce development pipeline. The Commission was informed that additional action is needed along the continuum that begins with K-12 career preparation through retaining health professionals where they are needed due to pressures such as turnover in rural areas, retirements, and attrition in fields such as nursing. Higher education institutions reported it is difficult to recruit faculty because licensed professionals such as nurses earn significantly more in clinical practice than in education. This limits education program size and the number of students who can be admitted.

Both the University of Minnesota and Mayo Medical School described the difficulty securing enough residency slots as a central bottleneck to any plans to expand medical school enrollment in response to projected physician shortages. Addressing clinical training challenges is one of the Commission's charges and was a major focus of the Commission's work.

2014 Current State-level Health Workforce Policy and Planning Efforts

The Commission's 2014 activities took place alongside several parallel 2014 state-level health workforce efforts and following other recent state-level health workforce policy and planning projects, summarized below:

	Project	Origin	Charge/Goals	Timeframe
1	Blue Ribbon Commission on the University of Minnesota Medical School	Executive Order 14-13 Led by Office of Higher Education	Advise the Governor and Legislature on future strategies, investments, and actions to strengthen the position of the University's Medical School	Recommendations and findings to the Governor's Office, the Legislature, and the public by 12/15/2014
2	Foreign-trained Physician Task Force	2014 DHS Licensing bill Led by MDH	Develop strategies to integrate immigrant, refugee and asylee physicians into the Minnesota health care delivery system	Recommendations to legislature by 12/31/2014
3	Mental Health Workforce Summit	2013 Higher Ed bill Led by MNSCU	Develop a comprehensive plan to increase the number of qualified people working at all levels of our mental health system, ensure appropriate coursework and training and create a more culturally diverse mental health workforce.	Recommendations due to legislature 1/15/2015
4	PIPELINE Project	2014 Omnibus appropriations bill, workforce development article. Led by Dept. of Labor and Industry	Develop competency standards and apprenticeships for occupations in high demand industries, including health care.	Report to legislature on progress by 1/15/2015
5	National Governors' Association Health Workforce Policy Academy	Governor's Office submitted successful proposal to NGA. Led by interagency and stakeholder core team, coordinated by MDH	Establish infrastructure for coordinated health workforce data, planning, and development and develop strategies for immediate action to address health workforce challenges, such as primary care, dental, and mental health shortages.	18 month planning and implementation period ending October 2015

The Commission heard updates on the 2014 workforce taskforces and projects chartered by the legislature and considered the intersection of each project with its charge. The Commission adopted recommendations to support the work of each project. Commission Co-chair Representative Huntley and Commission member Representative Tara Mack were also members of the Governor's Blue Ribbon Committee on the University of Minnesota Medical School. Co-chair Senator Greg Clausen was a member of the Mental Health Workforce Summit leadership team.

Recent and related state-level health workforce policy and planning efforts. The Commission also reviewed the recently completed health workforce planning and policy efforts summarized below.

	Project	Origin	Charge/Goals	Timeframe
1	Study and recommendations on the registered nurses and primary care physicians workforce	Minnesota Hospital Association	Understand the talent pool in the next ten years in two of the largest segments of the health care workforce.	Report and recommendations published July, 2014.
2	MMA Primary Care Task Force	Minnesota Medical Association	Identify strategies - at all levels of medical education and training and within practice settings - for increasing Minnesota's primary care physician workforce.	Recommendations published May, 2014
3	Report on the University of Minnesota's Medical School capacity	2013 Higher Ed bill Charge to U of M	Report the most recent and accepted analysis concerning the need for physicians in Minnesota in the future	Report submitted to legislature October 2013
4	Governor's Health Care Reform Task Force	Statute and executive order	Broad health reform scope, included workforce recommendations	Recommendations published December, 2012

II. Overview of Minnesota's Health Care Workforce

Supply

Minnesota's 2014 health care industry includes **448,894** personnel and comprises 14% of total state employment. Employment in Minnesota's health care sector is projected to grow faster than state employment as a whole.[i]

Largest Healthcare Occupations, Minnesota 2014

Occupation	2014 Employment Estimate	Percent of Health Care Providers
Registered Nurses	57,920	21.0%
Home Health Aides	33,600	12.2%
Nursing Assistants	29,690	10.8%
Licensed Practical and Licensed Vocational Nurses	17,400	6.3%
Physicians	14,997	5.3%
Medical Assistants	9,080	3.3%
Pharmacy Technicians	7,080	2.6%
Child, Family, and School Social Workers	5,780	2.1%
Dental Assistants	5,210	1.9%
Pharmacists	5,000	1.8%
Dental Hygienists	4,530	1.6%

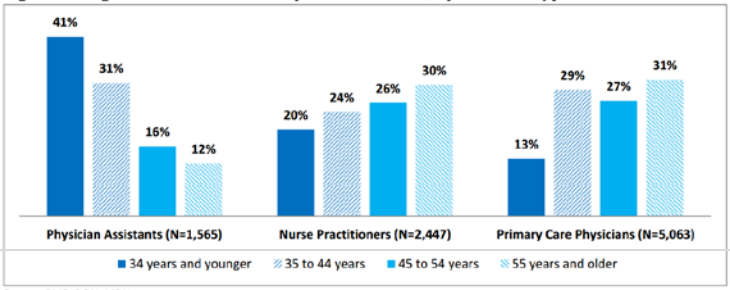
Age Demographics

The workforce is constantly changing as older people retire and younger people enter the workforce. Minnesota's health care industry faces a double workforce challenge:

- As the baby boom generation leaves the workforce between now and about 2020, the health care industry will be competing with all other sectors of the economy for a smaller and more diverse new workforce generation.
- At the same time, the aging of the entire population is expected to increase demand for health care services, putting additional stress on this workforce.

The age profile of the health workforce varies by occupation. The age profile of some health occupations mirrors the age profile of the working population. However, there are significant age characteristics of the primary care workforce, a sector the Commission was charged to evaluate, that affect its current and future availability. As seen in the figure below, primary care physicians and nurse practitioners, who

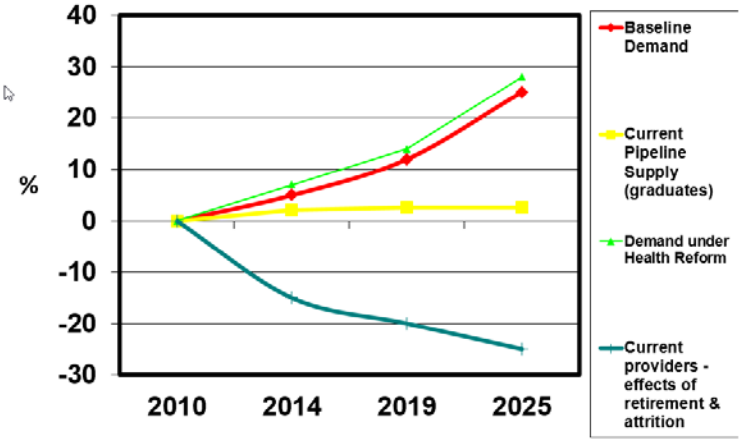
Figure 1-4. Age Distribution of Primary Care Workforce, by Provider Type



Source: BMP, BON, MDH

together comprise the majority of primary care providers, are much older than physician assistants, and much older than the general population they serve.

The age profile of the primary care workforce, the growing demand for health services by aging baby boomers, and flat enrollment in the state's medical schools and advanced practice nursing programs are factors that together contribute to a shortage of primary care providers. This dynamic will be offset somewhat - but not reversed - by the relative youth of physician assistants and the addition of new physician assistance education programs in Minnesota. This phenomenon is depicted in the figure below, provided by MDH[ii]. The care sought by patients with coverage newly obtained through the provisions of federal and state health reform laws will add some additional demand at the margin, but is expected to be

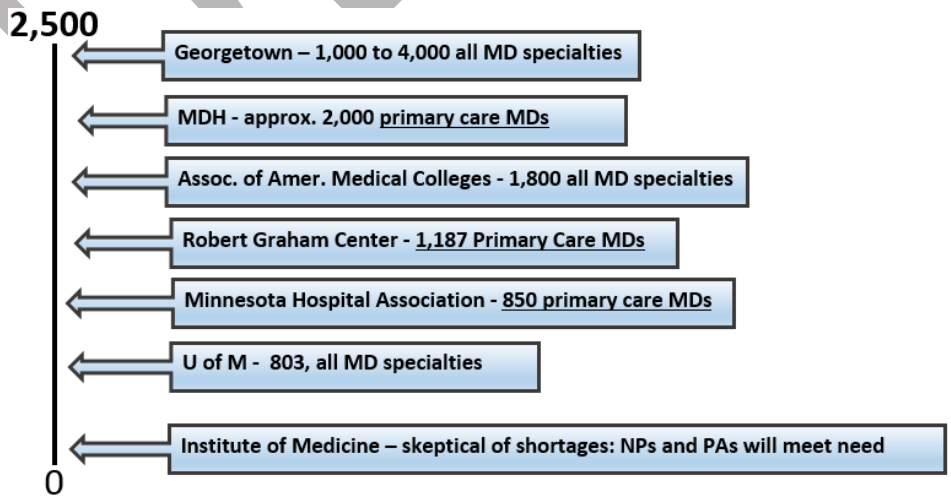


a smaller contributing factor than the underlying patient and provider aging effects.

Health Professional Shortage Projections for Minnesota

Several academic, government and professional and industry associations have projected shortages of physicians in Minnesota, as summarized in the figure below.

Recent Physician Shortage Projections for Minnesota[iii]



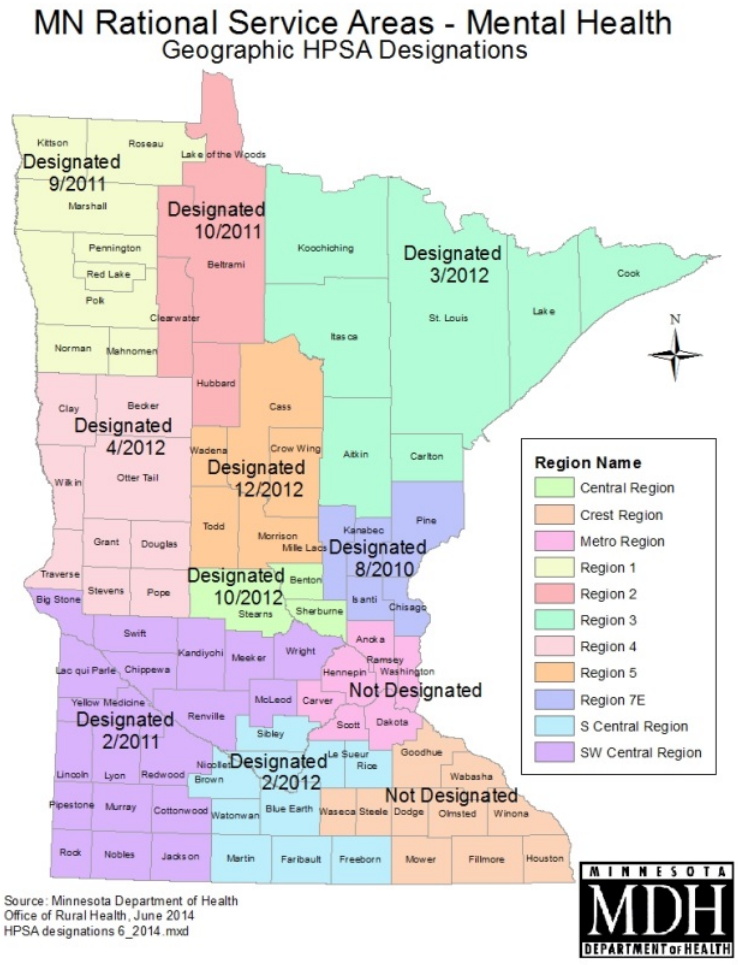
Analysts base projections on variables such as the age profile of the physician workforce, medical school and residency cohort sizes, demand for physician services, changing work hour preferences by younger

female physicians. Shortages are also projected in other occupations, especially medical and clinical laboratory technologists, rehabilitation counselors, physician assistants, medical equipment preparers, magnetic resonance imaging technologists, ophthalmic medical technicians, phlebotomists and cardiovascular technologists and technicians.

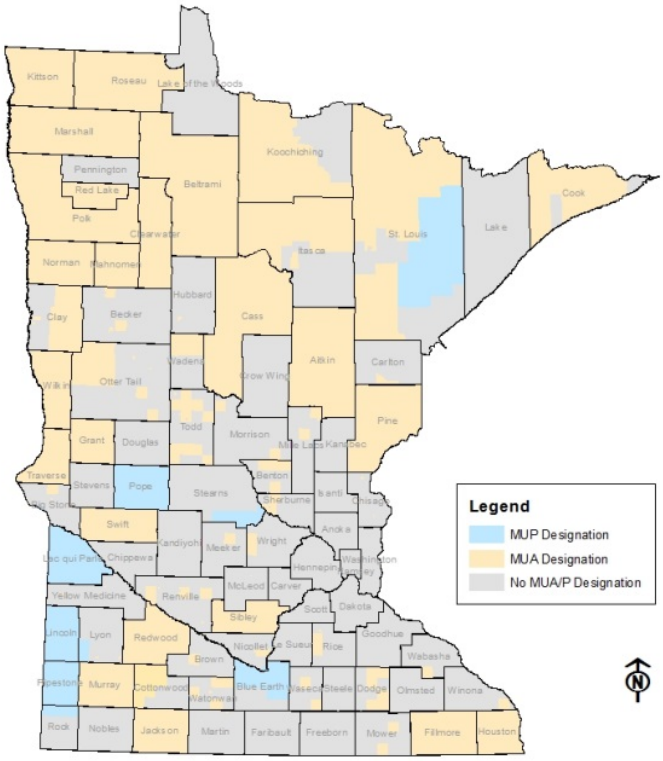
Distribution

Availability of health professionals varies by location, with rural areas in Minnesota facing a variety of challenges to attract and retain health professionals in many occupations. Common indicators of geographic availability are the federal government's Health Professional Shortage Area designations. Substantial areas of Greater Minnesota are designated shortage areas in the fields of primary care medicine, dentistry and mental health, as shown in the figures below.

Minnesota's Health Professional Shortage Areas

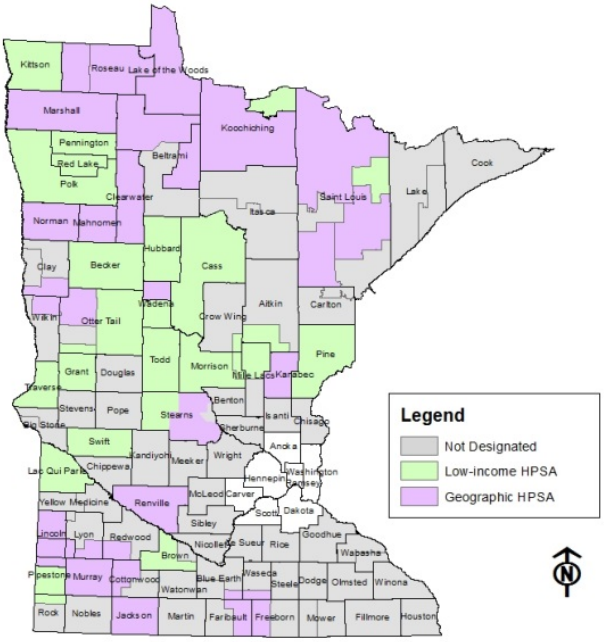


Medically Underserved Areas and Medically Underserved Populations



Source: Minnesota Department of Health
Office of Rural Health and Primary Care
June 2014

Health Professional Shortage Areas
Primary Care

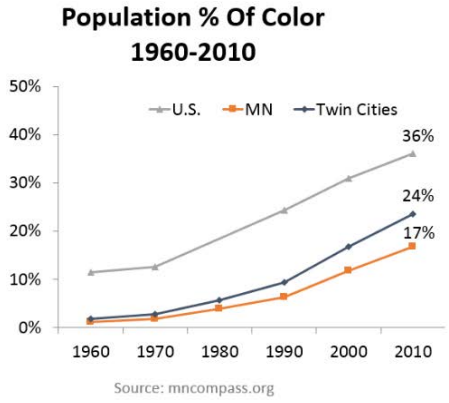


urce: Minnesota Department of Health; Office of Rural Health and Primary Care

June 2014

Diversity

Minnesota's population is growing increasingly diverse, but its health care workforce does not mirror the racial and ethnic composition of the state's population, as can be seen in the example below comparing the diversity of the population with the diversity of the physician workforce. Although the long term care workforce is as much or more diverse than the population it serves, this is not true in other health care sectors and professions.



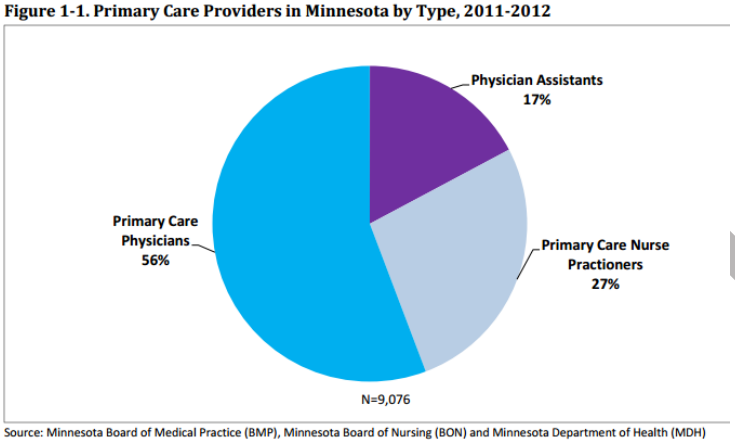
Of note among strategies to increase diversity of the health workforce, the Commission received an update from the Foreign Physician Task Force created by the 2014 Legislature to address barriers to entering medical practice or related careers by immigrants and refugees who were physicians in their home countries. This group of 200 – 300 physicians living in Minnesota, who could not take the standard path to entering U.S. medical practice, is largely from Minnesota's African, Asian and Latin American immigrant and refugee communities. This group represents an opportunity to add health care providers uniquely suited to serve a very diverse segment of the state's population, if a path to licensure as physicians or other health professionals can be developed.

Primary Care

Primary care is a medical specialty that serves as the patient's first point of entry into the health care system and as the continuing focal point for all needed health care services. Primary care professionals provide health promotion, disease prevention, health maintenance, counseling, patient education, diagnosis and treatment of acute and chronic illnesses in a variety of health care settings.[iv]

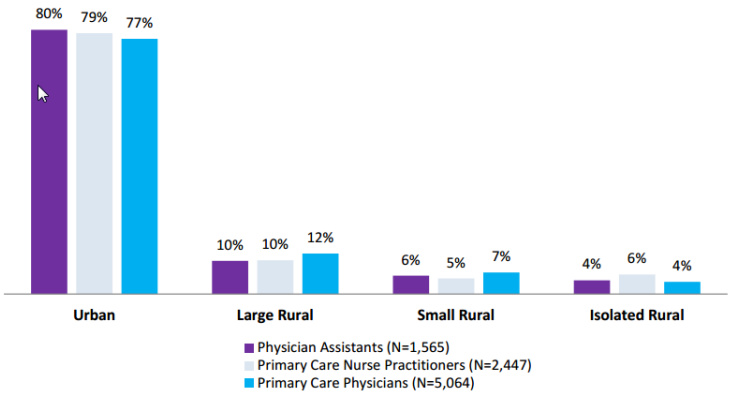
The Commission was directed to identify current causes and potential solutions to barriers related to the primary care workforce. Primary care has long been at the center of the health care delivery system, and is becoming even more integral as the health system changes in response to expectations for better outcomes, lower costs and increased patient involvement. The MDH figure below, which includes several primary health professions, provides some basic characteristics of Minnesota's primary care workforce and shows an uneven distribution of them throughout the state.

Figure 1-1. Primary Care Providers in Minnesota by Type, 2011-2012



Source: Minnesota Board of Medical Practice (BMP), Minnesota Board of Nursing (BON) and Minnesota Department of Health (MDH)

Rural-Urban Distribution of Minnesota's Primary Care Workforce, by Provider Type



Source: BMP, BON, MDH

The Commission noted the following challenges to sustaining and providing the primary care workforce that will be needed to meet the needs and expectations of Minnesota's citizens and its health care system:

- Primary care specialties pay less than other medical specialties, yet health professions students considering primary care experience the same student debt levels as all other students.
- There has been a significant decline in the number of medical students choosing general internal medicine as a residency choice and specialty, with more selecting internal medicine subspecialties such as cardiology, pulmonology, etc.
- Financial resources are limited to support additional primary care clinical training capacity in clinics and other ambulatory settings, because, among other reasons, the majority of Graduate Medical Education funds flow to hospital-based training.

The Commission heard a presentation of the Minnesota Medical Association's report and recommendations on the Primary Care Physician Workforce Shortage.[v] The Commission incorporated

the Association's recommendations into this report, modified by deliberations during Commission meetings.

Minnesota's Long Term Care Workforce

According to estimates, Minnesota's long term care sector employs 129,000 workers. It's predicted that the demand for older adult services will increase between 45 – 65 percent. One national study projects there will be a 71 percent growth in home/community based health services nationally, and that by 2020, it will be the largest job category nationally. An increasing competition for future workers, combined with the growth in demand for long term care services, shrinking long term care labor force and competitive challenges for workers, portend a growing workforce recruitment and retention challenge for the long term care sector. According to the Long Term Care Imperative, Minnesota's long term care sector currently has over 1,800 positions open in its top four job categories in nursing homes across Minnesota: registered nurses, LPNs, nursing assistants and dietary aides. According to the January 2014 edition of Minnesota Employment Review, 51 percent of graduating nurses were hired by older adult service providers in Minnesota. Long term care industry representatives point to challenges paying wages competitive with other job opportunities and note that state policy governs most revenue available to long term care facilities. After 18 months, 76 percent of new graduate hires had left and taken jobs elsewhere, primarily with hospitals, a result of the large salary gap between hospitals and older adult services. An RN in a hospital makes $17.26/hour more than in a nursing home, adding up to a $35,888 difference in pay per year. Nursing assistants make $12,000/year more in a hospital than in a nursing home. Retention in nursing homes today is just 65%. Turnover in housing with services, primarily in assisted living, is at 44%. Fourteen percent of Minnesota nursing homes last year reported they were forced to suspend admitting new residents because they didn't have the needed care givers to provide services, despite having facilities available.

For additional information on Minnesota's health care workforce, see the MDH Health Workforce Analysis Program website: http://www.health.state.mn.us/divs/orhpc/workforce/data.html

III. State Spending on Health Professions Education and Workforce Development

The Commission began a preliminary exploration of state government spending on health professions education and workforce development.

According to the House Fiscal Analysis department, the Higher Education committees spend the most on health-related higher education, but don't focus greatly on details of the need for health professionals and strategies to meet the need through the higher education pipeline. The Health & Human Services Committees are more focused on workforce needs and gaps in the workforce. The Health & Human Services Committees spend less on health-related higher education and workforce development than the Higher Education Committees. The two committees do not communicate in an organized way to address pipeline and workforce needs. There are also several related programs under the jurisdiction of the Jobs and Economic Development Committees.

The Commission undertook a preliminary review of state government investments and programs intended to contribute to meeting Minnesota's health workforce needs. It reviewed the following partial inventory of state programs directed at each section of the workforce development pipeline, summarized below.

Minnesota State Health Workforce Development Pipeline/Current Strategies

Prepare students in math/science & expose to health careers	**Recruit traditional & non -traditional students**		**Provide education and clinical training programs in high-need settings**	**Encourage grads to seek employment in high-need settings**	**Redesign health care system, delivery & health care jobs**	**Retain the health care workforce**
K – 12 Career & Technical Education, STEM, etc. (MN Dept. of Ed) Summer Health Careers Intern Program (MDH) Scrubs camps – MNSCU, others H1B and similar workforce development (MN Dept. of Employment and Economic Dev - DEED)	Summer Health Careers Intern Program (MDH) Future Doctors Program (U of M) U of M Duluth Med School Campus – rural focus Center of American Indian & Minority Health (U of M Duluth Med School)	Foreign-trained health worker test prep pilot (DEED) FasTRAC (DEED) Nursing facility scholarship program (MN Dept. of Human Services – DHS)	Clinical training subsidy ($58 million) (MDH) Greater MN Family Medicine Grant Program (MDH) Clinical Dental Education Grants (MDH) Rural Physician Associate Program (RPAP) (U of M) Direct appropriations to medical schools and other health professions education programs (MN Legislature)	Minnesota Health Professional Loan Forgive-ness Program (MDH) National Health Service Corps (MDH) Visa waivers for foreign medical grads ("J1") (MDH) Rural Recruiting & Retention Network (3RNet) (MDH & Rural Health Resource Center)	Team care approaches: Health Care Homes Program, Medicaid ACO demonstration Emerging professions support (MDH, licensing boards, Medicaid) Telehealth (rural providers and systems, DHS, MDH) State Innovation Model (SIM) grant (MDH/DHS) Scope of Practice changes (Health Licensing Boards)	Community retention strategies (MDH rural health programs, etc.) Long-term care wage issues (DHS, Legislature) Safe Patient Handling (DOLI) Volunteer Ambulance Award Program Telehealth (rural providers and systems, DHS, MDH)

State Government Investments

Preliminary direct state government total for spending on health professions educations and workforce development is $494 million per year. The Commission's initial, though incomplete, tally of direct state spending on health professions education and workforce development is about $494 million per year. Eighty-seven percent of the appropriations identified originate in the Higher Education divisions. The Commission noted that some state investments and activities not explicitly identified as workforce development spending have an indirect effect on health workforce dynamics. Examples include scope of practice regulation and state support of health care home and accountable care organization models. The Commission found this research complex, and recommends continued work to compile a complete picture of state investments in this area. (See Appendix IV for the full preliminary investment inventory.)

Medical Education and Research Costs Program (MERC). The Commission heard a presentation on the Medical Education and Research Costs Program (MERC) Program from MDH[vi]. With $57 million distributed to clinical training sites through a distribution formula, and additional funds allocated to Greater Minnesota family medicine residency programs, dental education, and Hennepin Country Medical Center, MERC is the largest health professions program in the Health and Human Services budget. Commission members noted that both MERC and Medicare funding of graduate medical education are largely or exclusively targeted at hospital training of physicians and do not respond to changes in the health care system that have moved more care to ambulatory and outpatient settings and also changed the makeup of the workforce providing primary care and other services.

The Commission also heard presentations and testimony from employers, private colleges and others about their health workforce investments outside of state government. Presentation materials are posted on the Commission's website.

The Commission considered the current level of public and private investment in health professions education and workforce development, noted that this investment is not expected to fully overcome the dynamics that lead to health workforce shortages, and concluded some level of additional investment will be necessary of Minnesota is to meet its health workforce goals and continue to respond to citizens' need for health services.

IV. Health Professions Education in Minnesota

According to the data from the **Integrated Postsecondary Education Data System (IPEDS)**, provided by the Minnesota Office of Higher Education, **25,684** students received a health professions certificate or degree at some level from Minnesota higher education programs in the 2012 - 2013 academic year. Students in the disciplines below received the largest number of awards during 2012 - 2013:

Registered Nursing/Registered Nurse	3970
Psychology, General (mainly Bachelors)	3093
Nursing Assistant/Aide and Patient Care Assistant/Aide	2529
Licensed Practical/Vocational Nurse Training	1918
Medical/Clinical Assistant	1104
Health/Health Care Administration/Management	908
Mental Health Counseling/Counselor	778
Massage Therapy/Therapeutic Massage	519
Public Health, General	499
Health Information/Medical Records Technology/Technician	415
Substance Abuse/Addiction Counseling	405

The Commission heard overviews from each of the higher education sectors in Minnesota that educate health professionals: University of Minnesota, Minnesota State Colleges and Universities, private colleges and career colleges. Presenters reported that health professional education is highly regulated through accreditation standards & licensure and certification requirements. Most programs receive high numbers of applicants, and there is high demand for graduates in many fields.

University of Minnesota Academic Health Center

The University of Minnesota's Academic Health Center comprises six schools, 6,200 students in graduate and undergraduate programs and 1,400 faculty. It educates 70 percent of the physician, dentist and advanced practice registered nurse (APRN) workforce in Minnesota. Most students are in professional and graduate programs. The fields educated at the U of M require multi-year programs, resulting in a high cost to train health professionals, with the experiential portion taking the bulk of time and cost. The University of Minnesota's Academic Health Center shared information on the length of time to educate and train each health profession and on the hours of clinical training required in each field, with medicine having the most at 4500 clinical hours of training. The amount of clinical training is increasing as curriculum is revamped, and clinical training experience is being introduced earlier to better prepare students.

There are 1700 University-affiliated training sites in Minnesota, literally in every county, where clinical training occurs for physicians, nurses, dentists, pharmacists and allied health professionals. There are large collaborative efforts across the state, which includes not just big hospital systems, but also nursing homes, pharmacies, and dental clinics. While MERC and Graduate Medical Education funding from the federal government are important funding sources for clinical training, the University of Minnesota's Academic Health Center is also dependent on pro bono work of providers for onsite training of students.

The University of Minnesota has been responding to workforce issues in the last decade by increasing enrollment and expanding programs, e.g. Duluth's pharmacist program, and nursing and allied health programs at the Rochester campus. It also has new partnerships with the Veterans Administration. It is developing pipeline programs to prepare college students to be ready and interested in health programs and has developed the new Doctor of Nursing Practice and Dental Therapist programs. The dental school is a regional dental school - the only dental school between Milwaukee and Seattle. The medical school has 986 students with one of the largest enrollments in the country. The nursing programs are expanding, with almost 700 students in pharmacy and1000 students in public health programs, and the University is one of the few academic health centers that includes vet medicine.

The University is being cautious about increasing enrollments. It states there must be a statewide strategy for solving the issue of clinical training, and until then enrollment is secondary. It is looking at how it can better train current students, residents and its workforce to work in teams and work at the top of their licensure/skills and is a leader in interprofessional education.

University of Minnesota
Health Professional Enrollments (2013-14)

Dentistry		**Pharmacy**	
Dental Students	412	Pharmacy Students	674
Dental Residents	100	Pharmacy Residents	21
Dental Therapists	30		
Dental Hygienists	96	**Public Health**	
		Public Health Students	1032
Medical School			
Medical Students	986	**Veterinary Medicine**	
Medical Residents	910	Veterinary Students	474
Nursing			
BSN (for RN)	395		
Masters in Nursing (RN)	127		
Doctor of Nursing Practice	275		
PhD in Nursing	44		

Student debt is a serious issue. Very few scholarships are available for U of M health professions students; therefore; debt is substantial.

University of Minnesota
Average Student Debt by Degree

Degree	# of Graduates	% w / Loans	Average Loans
Doctor of Dental Surgery (DDS)	109	85%	$208,005
Medical Doctor (MD)	217	91%	$158,125
Doctor of Pharmacy (PharmD)	157	94%	$133,490
Doctor of Nursing Practice (DNP)	58	59%	$48,733
Master of Nursing (MN)	66	92%	$48,506
Bachelor of Science in Dental Hygiene (BS)	23	91%	$33,137
Bachelor of Science in Nursing (BSN)	124	72%	$34,239

Minnesota State Colleges and Universities (MNSCU)

MNSCU'S 24 two-year colleges and seven comprehensive universities in Minnesota have 270,000 students. They are collectively one of the largest suppliers of health care professionals in Minnesota below the doctorate level. (89 percent of Minnesota's health care professionals have credentials below the doctor of medicine level.) MNSCU educates two thirds of the RNs and 99 percent of practical nurses in Minnesota. There are 39 bachelors programs in nursing at seven MNSCU universities. An important coordination organization health care education at MNSCU is HealthForce Minnesota, which has been in place in the last 10 years. HealthForce is a statewide center of excellence - a consortium of MNSCU institutions and health care organizations, such as Allina Hospitals, Fairview Systems, Minnesota Hospital Association and the state's workforce centers.

Health professions education challenges faced by MNSCU include the difficulty predicting future workforce needs, in particular predicting the state's need for RNs versus practical nurses. MNSCU scaled back its practical nursing programs in the last few years based on employer demand only to find hospitals are recently increasing the hiring of practical nurses. At the same time, some hospitals are no longer going to be hiring Associate degree nurses, only Baccalaureate degree nurses, placing extra pressure on MNSCU programs to prepare more nurses with Bachelor's degrees.

Some examples of MNSCU's healthcare programs, graduates and related employment:

Program Area	**Number of Minnesota Graduates (2012)**	**Percent of Minnesota Graduates from MnSCU institutions**	**MnSCU Graduates' Related Employment (2010)**
Registered Nursing	3,180	67%	90%
Practical Nursing	1,706	99%	91%
Dental Assistants/Hygienists	697	75%	82%
Medical Lab Technicians/Technologists	225	55-60%	91%
Radiology Technicians	183	72%	75%
Pharmacy Technicians/Assistants	167	28%	n/a
Surgical Technicians	134	75%	n/a
Physical Therapy Assistants	92	65%	n/a
Respiratory Therapists	91	71%	93%
Occupational Therapy Assistants	51	84%	n/a

Mayo Clinic Medical School, School of Graduate Medical Education and School of Health Sciences

Mayo Clinic Medical School. The Mayo Clinic Medical S has 54 students/year selected from 4,500+ applicants. In a couple of years, Mayo plans to open new branch in Arizona of about the same size. Mayo is planning a complete revision of its medical curriculum involving team education and the placement of more in primary care practice, a project that's slowly being evolved over the next few years. Approximately 26% (~300) Rochester trainees specialize in primary care (defined as Family Medicine, Internal Medicine, Pediatrics, OB/Gyn and General Surgery).

Mayo School of Graduate Medical Education. This school in Rochester currently has 182 programs with almost 1,300 trainees. Mayo attracts large number of residents from all over the country who want to do their residency at Mayo. It's been shown the state in which a physician ends up practicing is not determined by where they went to medical school, but rather where they did their residency and fellowship. As an example, 25% of Minnesota physicians trained at Mayo and there are currently more than 3,000 physicians in 186 Minnesota communities who trained at Mayo.

- Mayo School of Graduate Medical Education has over 260 programs/1600 trainees across all 3 sites (Minnesota, AZ and FL)
    - Rochester - 182 programs/1298 trainees
    - Florida - 46 programs/200 trainees
    - Arizona - 41 programs/164 trainees
- More accredited programs than any other sponsoring institution
- Over 3000 Mayo School of Graduate Medical Education alumni currently practice in Minnesota (approximately 1/4 of Minnesota's practicing physicians)
- More than 25% of Mayo School of Graduate Medical Education alumni have practiced in Minnesota for their entire careers
- More than 50% of faculty hired by Mayo Clinic Rochester in past 2 decades have been Mayo School of Graduate Medical Education graduates
- Where a physician completes her/his residency or fellowship is a much stronger predictor of where they will practice than medical school location

Mayo School of Health Sciences. This school started training allied health professionals in 1887. It was the first to invent the profession of nurse anesthetist, and continues to train nurse anesthetists every year. In 1930s, it began training physical therapists and dieticians. With campuses in Minnesota, Arizona, and Florida, it currently trains 1,700 students (1,264 in Minnesota) in 55 professions. It trains students from post high school professions all the way to doctorates. Some programs are structured as partnerships where Mayo works in partnership with Minnesota colleges and universities, such as the University of Minnesota Rochester and Rochester Community and Technical College, with the college or university giving the basic education and Mayo providing the health professions education. Mayo does not have an undergraduate school of nursing, but it provides clinical rotations for 1,200 nursing students, including over 600 from Minnesota schools.

Mayo hires on average 61 percent of the graduates it educates for jobs at Mayo.

Minnesota Private Colleges, presented by the Minnesota Private College Council

Heath care workforce is the second most popular major at Minnesota private colleges. Minnesota private colleges produce a significant amount of some professionals, nursing, OT, PT is somewhere between 40 and 60 percent. Minnesota private colleges are a very strong feeder of undergrads to the University of Minnesota and Mayo medical schools, and produce a significant amount of the primary care providers in Minnesota in the Doctor of Nursing Practice and the Physician Assistant programs (non-physician). Private colleges offer the only Physician Assistant education programs in Minnesota. They also have a strong focus on underserved and rural communities.

The Private College Council noted that it is very complex and challenging to educate a health care workforce for the rapidly evolving health system. New graduates do not begin employment able to care for the increased complexity and acuity of patients in hospitals and other settings. Education programs are making growing use of simulation training to better prepare students for practice. Private colleges believe a new education model is needed to both secure the preceptors needed and prepare students to practice in a team care environment. However, many aspects of the education and licensing system continue to be structured to serve the vestiges of the previous health system structure.

BACHELOR'S DEGREES: examples at Minnesota Private College Council member institutions

Nursing	792 graduates	From 11 Minnesota Private College Council institutions (Augsburg College, Bethel University, College of Saint Benedict, The College of St. Scholastica, Concordia College, Concordia University St. Paul, Gustavus Adolphus College, Saint John's University, Saint Mary's University of Minnesota, St. Catherine University and St. Olaf College)	44% of state total
Social work	550 graduates	From 7 Minnesota Private College Council institutions (Augsburg College, Bethel University, The College of St. Scholastica, Concordia College, St. Catherine University, St. Olaf College and University of St. Thomas)	30% of state total
Public health	65 graduates	From 2 Minnesota Private College Council institutions (St. Catherine University and University of St. Thomas)	50% of state total
Administration (including facility administration and health information)	42 graduates	From 4 Minnesota Private College Council institutions (The College of St. Scholastica, Concordia University St. Paul, Saint Mary's University of Minnesota and St. Catherine University)	20% of state total
Respiratory care therapy	19 graduates	From 1 Minnesota Private College Council institution (St. Catherine University)	100% of state total

ADVANCED DEGREES: examples at Minnesota Private College Council member institutions

Social Work (Master's)	381 graduates	From 4 Minnesota Private College Council institutions (Augsburg College, The College of St. Scholastica, St. Catherine University and University of St. Thomas)	63% of state total
Nursing (Master's and Doctor of Nursing Practice)	203 graduates	from 4 Minnesota Private College Council institutions (Augsburg College, Bethel University, The College of St. Scholastica and St. Catherine University)	36% of state total

Psychology (Master's and Doctorate)	180 graduates	From 3 Minnesota Private College Council institutions (Bethel University, Saint Mary's University of Minnesota and University of St. Thomas)	40% of state total
Marriage and family therapy (Master's)	110 graduates	From 1 Minnesota Private College Council institution (Saint Mary's University of Minnesota)	66% of state total
Administration (Master's in Health Information, Health Care Administration)	110 graduates	From 3 Minnesota Private College Council institutions (The College of St. Scholastica, Concordia University St. Paul and Saint Mary's University of Minnesota)	55% of state total
Physical therapy (Doctorate and Transitional Doctorate)	108 graduates	From 2 Minnesota Private College Council institutions (The College of St. Scholastica and St. Catherine University)	60% of state total
Occupational therapy (Master's)	89 graduates	From 2 Minnesota Private College Council institutions (The College of St. Scholastica and St. Catherine University)	64% of state total
Physician Assistant (Master's)	25 graduates	From 1 Minnesota Private College Council institution (Augsburg College)	100% of state total

Career Colleges, presented by the Minnesota Career College Association (MCCA)

Total career enrollment in Minnesota is about 22,000, and the members of MCCA represent about 58 percent of those enrollments. Of those, 58 percent are 25 years and older non-traditional students, 64 percent women, 48 percent are part-time and are working and have families. 23 percent have a racial or ethnic background other than White/Caucasian. The employment outlook for the fields we educate expects 22 percent growth in allied health. Technically trained professional students with certificates, diplomas or Associate degrees can support the providers/systems in the evolving health systems.

Career colleges also face challenges providing the experiential component. There's limited access, and career colleges compete for the same sites and same support systems as other education sectors. One of the key areas to think about re career colleges is being responsive to changes in health care. If the scope of practice for pharmacist is changing, how do they then complement that pharmacy technician to have a broader scope of practice that supports that as well? Career colleges have the ability to adapt to that.

MN Career College Assoc Institutions - Awards 2012 - 2013	Academy College	Brown College	Duluth Business University	Globe University	Herzing University	Minneapolis Business College	Minnesota School of Business	National American University	Rasmussen College	TOTAL MCCA Schools
Health Professions and Related Programs	6	58	54	95	167	95	538	162	1098	2273

Advance Practice Registered Nursing (APRN) Education in Minnesota[vii]

There are 10 APRN programs in Minnesota and most are located in the metro area, with the exceptions of the Mayo School in Rochester, Winona, and St. Scholastica in Duluth. There are a variety of specific roles an APRN can go into, the most popular being Family Nurse Practitioner (FNP). However this is a growing increase in the number of Adult/Gerontological Nurse Practitioner (Adult/GNP) trainings. APRNs are also increasingly working in acute care areas. Currently, there are only 2 Pediatric, 1 Women's Health, 2 Midwife, and 2 Clinical Nurse Specialist/Psych programs in Minnesota. There are 3 Nurse Anesthetist programs, one at Mayo and two in the Twin Cities.

Two hundred fifty-six (256) Primary Care APRNs graduated in the 2012-2013 year. The newest Primary Care APRN program is Augsburg College, with no grads yet. The University of Minnesota and St. Scholastica are the only two institutions with Informatics programs.

Physician Assistant Education in Minnesota[viii]

Minnesota has historically only had one Physician Assistant training program and was one of the few states with only one Physician Assistant program.

Augsburg College has been the only Physician Assistant training program for quite some time. Established in 1995, they are the first accredited program in Minnesota. They have continued accredited status and approximately 475 students have graduated from Augsburg's Physician Assistant program.

St. Catherine's University has the second physician assistant program established in Minnesota (March 2012). The program has provisional accreditation (implies this is a new program, not on probation). The first class began in Fall 2012, and there are no graduates yet. The first cohort started with 24 students, and they still have 24 students. The first class is expected to graduate in December.

Bethel University was provisionally accredited in fall 2013. They are expected to graduate their first class in August 2015 with 31 students.

The University of Wisconsin: LaCrosse is affiliated with Mayo Clinic and has a training site in Minnesota, and so is sometimes considered a Minnesota program.

St. Scholastica is planning a Physician Assistant program as well, and is hoping to get provisional accreditation in 2016.

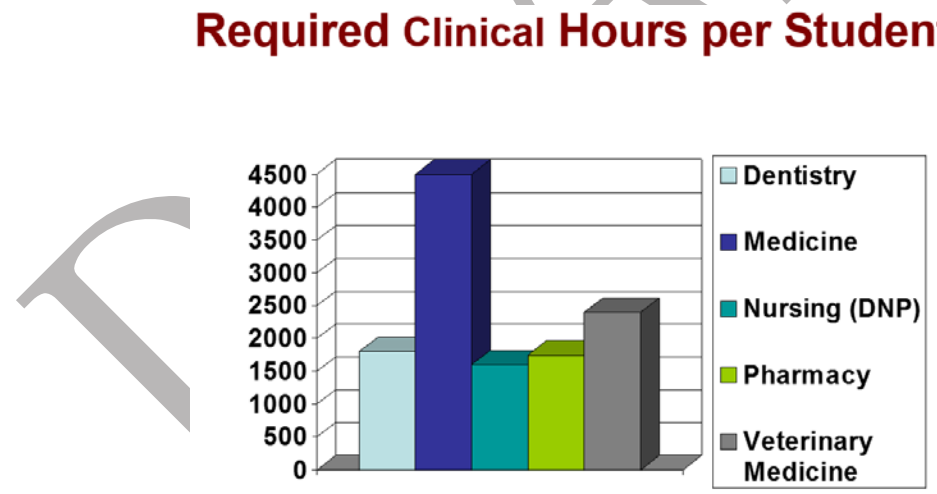
A snapshot of graduates in the next five years: 2014 will be the first year that the graduation rate triples to 92 students, going up to 131 from there. St. Scholastica is scheduled to graduate its first class in 2018. Augsburg has had two classes graduate of 50 students.

V. Clinical Training and Residency Challenges

In addition to classroom education, training at clinical sites is required in health professions education. All higher education, employer and clinical training sites that communicated with the Commission identified the availability, sustainability, and access to clinical training sites for students as their greatest

challenge, with the exception of the aging services sector, which identified recruitment and retention as its greatest challenge. The cost and availability of clinical sites was identified as a major bottleneck to producing more providers to meet state workforce needs. Although many colleges and universities arrange clinical training experiences for students, some require students to find their own clinical placements. Students in these programs face increasing difficulty as competition for clinical spots increases.[ix]

[x]The term "Graduate Medical Education" (GME) refers to the extensive training a graduate from medical school must complete before becoming a fully trained, independent physician eligible for Board Certification. Newly graduated medical students must receive additional training under the supervision of a fully trained physician. The physician in training is referred to as a "resident" or "resident physician". The principal setting for the training is in a teaching hospital. Training of a physician takes anywhere from seven to 11 years following the completion of a traditional four-year college degree. The estimated cost to train a medical resident is $150,000 per person per year for the three years of residency. Residents receive a $50,000 annual salary plus employee benefits.[xi]



Minnesota Graduate Medical Education Sponsors:

- Mayo Clinic College of Medicine
- Abbott-Northwestern Hospital/Allina Health System
- Allina Health / United Family Medicine
- Hennepin County Medical Center
- Twin Cities Spine
- HealthPartners Institute for Education and Research

- Tria Orthopaedic Center
- Fairview Southdale Hospital

University of Minnesota Medical School Clinical Training Sites

- Abbott Northwestern
- Children's Hospitals
- Gillette Children's
- Hennepin County Medical Center
- Mayo-Mankato
- Methodist-Park Nicollet
- North Memorial
- Regions Hospital
- Rochester Methodist
- St. Joseph's, St. Paul
- St. John's, Maplewood
- St. Mary's Duluth
- St. Mary's Rochester
- St. Cloud Hospital
- St. Luke's Duluth
- UMMC-Fairview
- VA Health System

Minnesota teaching hospitals and other clinical training sites reported total 2011 costs of about $350 million to the MERC program. Medicare Graduate Medical Education funding to Minnesota totals $180 - $200 million per year, and state MERC funding is currently $57 million per year. Medicare funding for residency training has been capped at the number of slots that existed in 1997, and funding by Medicare is less than costs to provide care, according to the Metro Minnesota Council on Graduate Medical Education. Medical school graduates are increasing, but the number of residency slots is staying the same. Forty percent of Minnesota programs that train physicians are primary care-focused. The VA Medical Center in Minneapolis is a significant Graduate Medical Education site outside the Medicare support system, and federal funding for residency slots at Minnesota's children's hospital is provided by the U.S Health Resources and Services Administration.

In 2013, more than 500 U.S. medical school graduates nationwide could not get residency positions, as the number of medical school graduates increased while the number of residency programs remained static. Both the University of Minnesota and Mayo medical schools reported this "bottleneck" as a major reason they do not plan to expand their medical school class size.

Advanced Practice Registered Nurse Clinical Training

Advanced Practice Registered Nurse training challenges include:

- No federal funding for clinical training of APRNs
- CMS regulations for APRN students have tightened up in the last 5-10 years, making it difficult for those working in a revenue generation method for physicians to take on students
- Presence of online schools
- Competition is highest in the Twin Cities and Rochester for student placement

- Placing & supporting APRN clinical students in Greater Minnesota is challenging. Smaller clinic settings are difficult and the two days a week policy makes it tough to do the didactic and clinical at the same time. There is also an issue of providing housing to send students to these more rural locations for 2-3 weeks at a time
- Faculty shortages continue to rise—it is estimated that 60% of current faculty will retire in the next 10 years (there were 28 empty spots in Minnesota recently). There is difficulty in attracting younger people to faculty positions
- Faculty salaries are not competitive with practice salaries, which is a disincentive to teach
- APRNs don't reflect Minnesota's growing diverse population. Racial/ethnic percentages are much lower in APRN programs compared to the state

Physician Assistant Clinical Training

Physician assistant educators noted similar challenges to the clinical training of physician assistants, including:

- Merging of smaller systems with larger systems, Physician Assistants unable to bill, impact of student on patient flow, no really direct revenue or incentives
- Provider productivity: concern that having students impact income potential (biggest bottleneck in Minnesota)

MNSCU reported facing acute needs for clinical placements, including clinical placements in mental health fields. MNSCU programs in many fields face similar constraints. Anecdotally some MNSCU programs are looking at having to scale back their enrollments and offerings because of the lack of clinical placements.

Health care facility challenges: Hospitals, clinics and other health care facilities that provide clinical training identified challenges providing the financial resources to accept student trainees. Health care facility revenue systems are predicated on turning patients around quickly in a hospital environment or seeing many patients and providing many procedures and services in an outpatient setting. There are opportunity costs to have students, and that has not been offset by the education finance model. In addition health care providers are in a transition between being reimbursed for procedures and a new emphasis on keeping people healthy and being reimbursed for that. Individual preceptors are busy doing their craft, providing their service, and they are frequently less enthused about time taken away for teaching. The tension between revenue generation and teaching students is a challenge for preceptors. It can be especially difficult for rural providers to give up time for precepting which can take away from their revenue stream. The commission learned there are programs in other states, such as tax credits, specifically designed to support and reward clinicians for becoming and remaining preceptors.

Presenters from both higher education institutions and residency programs all stated they would have capacity to make modest increases in the number of residency slots and other clinical training slots they could offer.

For full presentations made to the Commission, and all other Commission records, see http://www.lcc.leg.mn/lhcwc/meetings.html

VI. Scope of Practice

The Commission acknowledged the role of legal and regulatory scope of practice requirements in the ability of health professionals to contribute to meeting workforce needs. It reviewed a national consensus document, Changes in Healthcare Professions Scope of Practice: Legislative Considerations, authored in 1997 by six national associations of state health professional licensing boards.

The Commission believes the principles of this national consensus report, below, can be guides for scope of practice decisions by future legislatures:

- The purpose of regulation – public protection – should have top priority in scope of practice decisions, rather than professional self-interest
- Changes in scope of practice are inherent in our current healthcare system
- Collaboration between health care providers should be the professional norm
- Overlap among professions is necessary
- Practice acts should require licensees to demonstrate that they have the requisite training and competence to provide a service

VII. Emerging Professions

The Commission received information from the legislatively-chartered Minnesota PIPELINE Project[xii] and from MDH[xiii] on new and emerging health professions, the roles of several new occupations and the contributions emerging professions can make to meeting state health workforce needs. The Commission notes that new professions will continue to emerge as the health care delivery system changes.

PIPELINE Project – This project, led by the Minnesota Department of Labor and industry, is intended to advance employment and opportunities in major Minnesota industries. The project is centered on the dual-training model, in which participating employees receive both classroom education and on-the-job training. The project identified four new and emerging health care occupations, below, and will be developing competency standards for each:

- Health Information Technician
- Psychiatric Technical /Mental Health Technician
- Health Support Specialist
- Medical Scribes

Emerging Professions licensed or certified in Minnesota and reimbursed by Medical Assistance - Minnesota is unique in recognizing and reimbursing five emerging professions that each have potential to contribute to meeting state workforce needs and advancing new models of care:

1. Community Health Workers
2. Dental Therapists
3. Community Paramedics
4. Doulas
5. Mental Health Peer Support Specialists (Certified Peer Specialists)

VIII. Recommendations

Charge 1: Identify current and anticipated health care workforce shortages, by both provider type and geography

An overview of current and anticipated health care workforce shortages presented to the Commission is provided above. The Commission found that Minnesota health workforce data is collected and analyzed by the Minnesota Department of Health, the Department of Employment and Economic Development, health industry associations and employers. Related information on health professions students is collected by the Office of Higher Education and higher education institutions and systems.

The Commission heard from several presenters that a difficulty in predicting workforce needs is predicting the characteristics of the rapidly changing health care delivery system and the workforce it will need produced by higher education. Staffing models vary and are in transition, with responsibilities shifting among team members and new types of workers appearing. The education time for health professions students can be as long as twelve years, creating a challenge in planning curriculum, clinical training details and class sizes.

Recommendations for Action by the 2015 legislature:

1. The Minnesota Department of Health (MDH), other state agencies such as the Department of Employment and Economic Development and the Office of Higher Education and relevant partners should continue to track health care workforce supply and demand on an ongoing basis, identify shortages and analyze how changes in health care delivery affect workforce needs.

Directions for 2015 - 16 work plan, and longer term recommendations:

2. The legislature should create a state health professions council that includes representatives from health professions schools, clinical training sites, students, employers and other relevant stakeholders.

3. Executive branch agencies, led by the Minnesota Department of Health, and other entities engaged in health workforce data collection should establish a formal structure to coordinate and integrate the collection and analysis of health workforce data to provide the legislature and other policymakers integrated health workforce information and analysis.

4. The Legislative Health Care Workforce Commission should continue to track changes in the health care delivery system that will impact the supply and demand of the workforce and the changing nature of the jobs of health professionals from physicians to medical assistants. Key trends the Commission should monitor include the growing use of team care models, the expansion of health care homes and accountable care organizations, and the development and growth of new health care occupations such as community paramedics.

5. The Legislative Health Care Workforce Commission should continue to compile information on state government's spending on health professions education and training to improve the legislature's ability to analyze the role of its investments in addressing the state's health workforce needs.

Charge 2: evaluate the effectiveness of incentives currently available to develop, attract, and retain a highly skilled health care workforce

The Commission discussed the role of program evaluation in responding to workforce needs. It heard reports from several workforce programs that have been subject to formal evaluation and received testimony that shared informal findings on other strategies.

Minnesota Health Professional Loan Forgiveness Program. This Health Department Program provides loan forgiveness incentives to residents and students entering the workforce to take jobs in rural and other underserved areas and settings. The program has undergone periodic evaluation. Evaluations have documented that the program is accomplishing its goals and has a strong influence on the employment choices of participants. The program has also documented a high retention rate; most participants remain in the same or a similar position once their service obligation is complete. Links

Medical Education and Research Costs (MERC) The Commission heard a variety of testimony on this major state program that supports the clinical training of physicians, advance practice nurses and other professions. Although the program has not undergone formal evaluation, testifiers noted its importance in sustaining clinical training in Minnesota. Testimony was also received on the complexities of the program.

Recommendations for Action by the 2015 legislature:

6. The legislature should support continuation, and growth where warranted, of proven programs with measurable outcomes like loan forgiveness for physicians, advanced practice nurses, physician assistants, pharmacists, dentists and health faculty; Rural Physicians Associate Program, etc.

7. State agencies that administer health workforce programs should evaluate and propose discontinuing programs that have served their purpose and consider redirecting funds towards more urgent current needs.

Directions for 2015 - 16 work plan, and longer term recommendations:

8. The legislature should regularly review the portfolio of state investments in health professions programs and institutions to assess the nature, scale and effectiveness of the state's contribution to meeting health workforce needs.

9. The legislature should assess the effectiveness of the current MERC distribution of funds in meeting high priority state workforce needs.

Charge 3: study alternative incentives to develop, attract, and retain a highly skilled and diverse health care workforce

Recommendations for Action by the 2015 legislature:

10. The legislature should explore public/private partnership opportunities to develop, attract and retain a highly skilled health care workforce.

11. The legislature should target loan forgiveness and loan repayment programs specifically to primary care, and restore funding to levels equal to or greater than those of 2008. The legislature should also consider adding additional professions and medical specialties, such as obstetrics, mental health professions and additional health care faculty, to the loan forgiveness program, and provide additional funding for these additional professions.

12. The legislature should authorize funding to support the implementation of the Project Lead the Way science, technology, engineering, and math (STEM) program in the form of grants, administered by the MN Department of Education, to school districts. Priority would be given to school districts implementing the biomedical series of courses.

13. The legislature should support the recommendations of the Mental Health Workforce Summit.

14. The legislature should support the recommendations of the Foreign Physicians Task Force.

15. The legislature should support the recommendations of the Minnesota PIPELINE Project.

16. The legislature should consider the recommendations of the Blue Ribbon Committee on the University of Minnesota Medical School.

17. The legislature should invest in strategies that will lead to a more diverse health care workforce.

18. The legislature should support programs that expose K - 12 students to health careers, such as the state Summer Health Care Intern Program, HealthForce Scrubs camps, summer enrichment programs and other programs that prepare and recruit rural students and nontraditional students into medical school, nursing and other health careers.

19. The legislature should encourage or require nursing schools to consider prior health care experience, such as nursing home employment, in admissions.

20. Health professions education programs in all higher education sectors should inventory their online Masters programs in health fields and create additional online Masters Programs to provide rural residents with career ladder and advancement additional opportunities they may cannot find within a reasonable distance of their communities

Directions for 2015 - 16 work plan, and longer term recommendations:

21. The legislature should consider a range of state responses to meeting the workforce needs of the long term care and home and community based services sectors.
    - Encourage or require nursing schools to consider prior health care experience, such as nursing home employment, in admissions.
    - Promote and consider increasing the state's Registered Nurse Loan Forgiveness Program, which is an incentive for nurses to work in nursing homes for at least 3 - 4 years.

- Evaluate the effectiveness of the state's Nursing Facility Employee Scholarship Program administered by the Department of Human Services. Consider expanding the program to cover additional training needs of caregivers and make employees in home and community based services settings eligible for scholarships.

22. The legislature should analyze and respond to any state barriers, such as regulatory or reimbursement issues, that may be slowing the growth of telehealth to meet workforce needs.

23. The legislature, MDH, DHS and other relevant state agencies should Monitor and evaluate the effects of the growth of team models of care, Accountable Care Organizations, health care homes, and other new developments on the state's workforce supply and demand. Data is becoming available on the cost effects of these new models, but little analysis is yet being conducted on the workforce effects.

24. The legislature should support the incorporation of emerging professions such as community paramedics, community health workers, medical scribes and other occupations into the delivery of health services.

25. The legislature, MDH and DHS should evaluate how health care homes and Accountable Care Organizations are working in all areas of the state and identify whether there are particular problems in certain places.

Charge 4: Identify current causes and potential solutions to barriers related to the primary care workforce, including, but not limited to:

(i) Training and residency shortages;
(ii) disparities in income between primary care and other providers and
(iii) negative perceptions of primary care among students

As noted above, the Commission explored the supply and demand for health professionals who provide primary care services. The Commission heard an overview of graduate medical education issues from the Metro Minnesota Council on Graduate Medical Education (MMCGME), which represents many of Minnesota's teaching hospitals. MMCGME discussed the structure and mechanics of graduate medical educations, as well as its limitations and threats to graduate medical education funding.

The Commission also heard testimony from medical, nurse practitioner and physician assistant students, residents and recent graduates on their education and the decision points that have led them to choose primary care practice or another specialty. According to these panelists, student debt concerns are a major influence on specialty and location decisions. Panelists recommended expanded loan forgiveness funding to encourage students and residents to select primary care and/or rural practice.

Recommendations for Action by the 2015 legislature:

26. The legislature should increase funding for Family Medicine residencies and similar programs, including both rural family medicine programs and those serving underserved urban communities. Funding should include support of APRN and physician assistant clinical placements in rural and underserved areas.

27. The legislature should direct the Department of Human Services to examine the feasibility of seeking a waiver from the Centers for Medicare & Medicaid Services (CMS) that would provide for state management of GME distribution in Minnesota.

28. The legislature should sustain beyond 2014 the ACA-required Medicaid payment bump for primary care, which increases primary care Medicaid rates to Medicare levels for 2013-2014

29. The legislature, higher education institutions and health care employers should increase the number of available clinical training sites for medical residents and advanced practice nursing, physician assistant and mental health students in Minnesota, and examine ways to remove barriers that exist in allowing health professions students to have more meaningful experiences.

30. The legislature should consider incentives similar to the Georgia preceptor tax credit and the rural provider tax credits in Montana, New Mexico and Oregon to retain and attract primary care preceptors for medical, advanced practice nursing and physician assistant students.

Directions for 2015 -16 work plan, and longer term recommendations:

31. The legislature should identify and study expanding the scope of practice for health care professions.

APPENDIX

I. 2014 Law establishing the Legislative Health Care Workforce Commission

II. Preliminary Inventory State Government Health Workforce Education and Development Spending

III. MNSCU Health Professions Education Programs

IV. List of presenters

Minnesota Laws 2014, Ch 312, Art 30, Sec 3, Subd 3

Subdivision 1. **Legislative oversight.** The Legislative Health Care Workforce Commission is created to study and make recommendations to the legislature on how to achieve the goal of strengthening the workforce in healthcare.

Subd. 2. **Membership.** The Legislative Health Care Workforce Commission consists of five members of the senate appointed by the Subcommittee on Committees of the Committee on Rules and Administration and five members of the House of Representatives appointed by the speaker of the house. The Legislative Health Care Workforce Commission must include three members of the majority party and two members of the minority party in each house.

Subd. 3. **Officers.** The commission must elect a chair and may elect other officers as it determines are necessary. The chair shall alternate between a member of the senate and a member of the House of Representatives in January of each odd-numbered year.

Subd. 4. **Initial appointments and meeting.** Appointing authorities for the Legislative Health Care Workforce Commission must make initial appointments by June 1, 2014. The speaker of the House of Representatives must designate one member of the commission to convene the first meeting of the commission by June 15, 2014.

Subd. 5. **Report to the legislature.** The Legislative Health Care Workforce Commission must provide a preliminary report making recommendations to the legislature by December 31, 2014. The commissioner must provide a final report to the legislature by December 31, 2016. The final report must:

(1) identify current and anticipated health care workforce shortages, by both provider type and geography;

(2) evaluate the effectiveness of incentives currently available to develop, attract, and retain a highly skilled health care workforce;

(3) study alternative incentives to develop, attract, and retain a highly skilled and diverse health care workforce; and

(4) identify current causes and potential solutions to barriers related to the primary care workforce, including, but not limited to:

(i) training and residency shortages;
(ii) disparities in income between primary care and other providers; and
(iii) negative perceptions of primary care among students.

Subd. 6. **Assistance to the commission.** The commissioners of health, human services, commerce, and

other state agencies shall provide assistance and technical support to the commission at the request of the commission. The Minnesota Medical Association and other stakeholder groups shall also provide advice to the commission as needed. The commission may convene subcommittees to provide additional assistance and advice to the commission.

Subd. 7. **Commission member expenses.** Members of the commission may receive per diem and expense reimbursement from money appropriated for the commission in the manner and amount prescribed for per diem and expense payments by the senate Committee on Rules and Administration and the House Committee on Rules and Legislative Administration.

Subd. 8. **Expiration.** The Legislative Health Care Workforce Commission expires on January 1, 2017.

Preliminary Inventory State Government Health Workforce Education and Development Spending

u 1	Program Name	Agency or Institution	Division	Fund	Pipeline Segment	Citation	Annual Appropriation
	Higher Ed Division						
1	HealthForce, includes Scrubs Camps	MNSCU	Higher Ed	GF	Prepare students		tbd
2	U of M Duluth Med School Campus-rural focus	U of M			Recruit students		tbd
3	Center of American Indian & Minority Health	U of M			Recruit students		tbd
4	Future Doctors Program	U of M			Recruit students		tbd
5	Academic Health Center	U of M	Higher Ed	Cig Tax	Recruit/educate		22,250
6	Primary Care Education Initiatives	U of M	Higher Ed	HCAF	Recruit/educate		2,157
7	Health Sience "Specials"	U of M	Higher Ed	GF	Recruit/educate		9,354
8	United Family Medicine Resisdency	OHE	Higher Ed		Clinical Training		351
9	St. Cloud Hospital family practice residency program	OHE	Higher Ed		Clinical Training		346
10	Mayo Clinic Medical School	Mayo	Higher Ed	GF	Clinical Training		665
11	HCMC graduate family medicine program	OHE	Higher Ed	GF	Clinical Training		645
12	Mayo Family & General Residency Programs	Mayo	Higher Ed	GF	Clinical Training		686
13	Rural Physician Associate Program (RPAP)	U of M			Clinical Training		tbd
14	MNSCU Health Professions Programs	MNSCU	Higher Ed	all	credit-based		142,000
15	Other state appropriations to U of M medical school and other health professions education programs	MN Legislature	Higher Ed		Clinical Training		251,300
16	State financial aid to health professions students	OHE	Higher Ed				tbd
	TOTAL				TOTAL		429,754
	HHS Division						
1	MERC Clinical Training Subsidy	Health	HHS		Clinical Training		57,127
2	Summer Health Careers Intern Program	Health	HHS	HCAF	Prepare students		300
3	Nursing Facility Scholarship Program	DHS	HHS		Recruit students		tbd
5	Greater MN Family Medicine Grant Program	Health	HHS		Clinical Training		1,000
6	Clinical Dental Education Grants	Health	HHS		Clinical Training		1,122
7	HCMC Clinical Medcial Education	Health	HHS		Clinical Training		1,035
8	Teaching hospital MA add on	DHS	HHS	GF	Clinical Training		tbd
9	MN Health Professional Loan Forgiveness Program	Health	HHS		Employment High Need Settings		740
11	National Health Service Corps - state match	Health	HHS		Employment High Need Settings		100
12	Visa Waivers for foreign medical grads ("J-1")	Health	HHS		Employment High Need Settings		in MDH base
13	Volunteer Ambulance Award Program (Cooper Sams)	EMSRB	HHS		Retention		tbd
14	MA Primary Care Rate add-on	DHS	HHS	GF	Retention		tbd
15	Long-term care wage issues	DHS, MN Legislature			Retention		tbd
17	Scope of Practice changes	Licensing Boards			Redesign system		tbd
18	Emerging professions support	MDH	Federal		Redesign system	SIM grant	900
19	Team care approaches: Health Care Homes Program, Medicaid ACO demonstration		HHS		Redesign system		tbd
	State Innovation Model (SIM) grant	Health, DHS	HHS		Redesign system		tbd
	TOTAL				TOTAL		62,324
	Other Finance Divisions						
1	DEED Programs	DEED	Jobs/Ec. Devel				tbd
2	Foreign-trained hlth worker test prep	DEED - 1 time funds	Jobs/Ec. D	WF Devel	Recruit students		450
3	FasTRAC	DEED	Jobs/Ec. D	WF Devel	Recruit students		1,500
4	Telehealth	Providers, DHS, Health	Jobs/Ed. Devel		Redesign system		tbd
5	K-12 Career/Technical Ed	Education	K-12	GF	Prepare students		tbd
	TOTAL				TOTAL		1,950
	GRAND TOTAL						494,028

Minnesota STATE COLLEGES & UNIVERSITIES

COLLEGE
HEALTHCARE PROGRAMS

	CENTRAL					METRO AREA										NORTHEAST								NORTHWEST								SOUTHEAST								SOUTHWEST							
	Alexandria TCC	Anoka-Ramsey, Cambridge	Central Lakes, Brainerd	Central Lakes, Staples	Pine, Pine City	St. Cloud TCC	Anoka-Ramsey, Coon Rapids	Anoka Technical, Anoka	Century, White Bear Lake	Dakota County, Rosemount	Hennepin Tech, Brooklyn Park	Hennepin Tech, Eden Prairie	Inver Hills, Inver Grove Heights	Minneapolis	Normandale, Bloomington	North Hennepin, Brooklyn Park	Saint Paul	Fond du Lac, Cloquet	Lake Superior, Duluth	NE - Hibbing	NE - Itasca, Grand Rapids	NE - Mesabi Range, Eveleth	NE - Mesabi Range, Virginia	NE - Rainy River, Int'l Falls	NE - Vermilion, Ely	MN State CTC, Detroit Lakes	MN State CTC, Fergus Falls	MN State CTC, Moorhead	MN State CTC, Wadena	Northland, East Grand Forks	Northland, Thief River Falls	Northwest, Bemidji	MSC-SE Technical, Red Wing	MSC-SE Technical, Winona	Riverland, Albert Lea	Riverland, Austin	Riverland, Owatonna	Rochester	South Central, Faribault	South Central, North Mankato	Minnesota West, Canby	Minnesota West, Granite Falls	Minnesota West, Jackson	Minnesota West, Pipestone	Minnesota West, Worthington	Ridgewater, Hutchinson	Ridgewater, Willmar	Offered Completely Online
Activity Director																									•																					
Biotechnology/Biochemistry															•																															
Cardiovascular Technology						•																								•															
Central Services Technician								•							•																															
Communication Sciences and Disorders	•																																												
Community Health Services		•					•				•	•		•	•																			•	•										
Dental Assistant			•			•			•		•	•		•						•								•								•									
Dental Hygienist						•			•						•				•									•								•									
Dialysis																																														
EMT - Basic or First Responder								•	•		•	•		•							•				•									•		•				•	•		•	•	
EMT - Paramedic									•												•																•								
Health Information Technology		•				•	•	•		•					•		•									•	•	•	•			•						•					•	•	
Health Sciences - Multi-field		•			•	•	•		•	•	•	•			•		•		•		•			•						•	•	•				•				•		•	•	
Health Services Administration									•																																				
Health Unit Coordinator											•	•					•																•	•				•							
Health, Fitness and Sport Sciences	•	•					•			•			•	•	•	•	•	•	•					•												•								
Histotechnology																•																													
Holistic Health and Healing		•					•								•																		•	•										
Massage Therapy																	•		•															•	•	•									
Medical Administrative Assistant	•		•			•		•	•	•	•	•		•			•		•	•						•	•	•	•	•	•	•		•	•		•	•		•	•	•	•	
Medical Assistant			•	•	•			•	•	•	•								•															•	•		•	•		•	•	•	•	
Medical Coding Specialist	•							•											•	•							•	•	•	•	•	•			•			•	•		•	•	•	•	
Medical Technology / Clinical Lab Science	•	•					•										•		•	•							•	•	•	•	•	•			•			•	•		•	•	•	•	
Medical Transcription	•									•							•		•								•	•	•	•	•	•			•	•		•			•	•	•	•	
Neurophysiology Technology															•																														
Nursing	•	•	•	•	•	•	•	•	•			•	•	•	•	•		•	•	•						•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
Nursing - Assistant/Home Health Aide	•		•		•	•		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•		•					•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
Nursing - Practical	•		•	•	•	•		•		•	•	•					•	•	•		•	•				•	•	•	•	•	•	•	•	•	•		•	•		•	•	•	•	
Nutrition and Dietetic Technology															•			•																											
Occupational Safety											•	•																																	•	
Occupational Therapy Assistant								•																						•															
Orthotics and Prosthetics									•																																				
Pharmacy Technology		•									•	•			•					•						•	•	•	•	•															
Phlebotomy	•		•	•											•			•									•			•	•	•			•							•	•	
Physical Therapy Assistant							•												•											•														
Polysomnography															•																														
Radiologic Technology					•				•										•								•	•	•	•	•				•				•					•	
Respiratory Therapy																	•		•																										
Sonography						•																																							
Surgical Technology						•		•											•										•	•															

UNIVERSITY
UNDERGRADUATE HEALTHCARE PROGRAMS

	Bemidji State	Metropolitan State	Minnesota State Mankato	Minnesota State Moorhead	St. Cloud State	Southwest Minnesota State	Winona State	Offered Completely Online
Community Health Services	•		•	•	•		•	
Dental Hygienist		•	•					
Health Services Administration				•				•
Health, Fitness and Sport Science	•		•	•	•	•	•	
Medical Technology/Clinical Lab Science	•		•	•	•	•		
Nuclear Medical Technology					•			
Nursing	•	•	•	•	•	•	•	•
Nursing - Advanced Practice								•
Radiologic Technology					•			
Surgical Technology								•
Teaching - Health	•		•	•	•			

GRADUATE HEALTHCARE PROGRAMS

	Bemidji State	Metropolitan State	Minnesota State Mankato	Minnesota State Moorhead	St. Cloud State	Southwest Minnesota State	Winona State	Offered Completely Online
Biomedical Equipment Technology					•			
Biotechnology/Biochemistry				•				
Community Health Services			•					•
Dental Health Specialist		•						
Gerontology			•		•			
Health Services Administration								•
Health, Fitness and Sport Science			•		•			
Medical Product Regulation					•			
Medical Technology/Clinical Lab Science					•			
Nursing		•			•			
Nursing - Administration		•					•	•
Nursing - Adult Health/Geriatric		•					•	•
Nursing - Advanced Practices		•	•				•	•
Nursing - Educator		•	•				•	•
Teaching - Health			•					

[i] Minnesota Department of Employment and Economic Development, Occupational Employment Statistics, second quarter 2014.

[ii] Schoenbaum, M. & Van Cleave, E. (2013, February). Primary care is the heart of health reform in Minnesota.
[iii] Carnevale, A. P., Smith, N., Gulish, A., & Beach, B. H. (2012). Healthcare. Georgetown University Center on Education and the Workforce.
Georgetown's Center for Education and the Workforce has not conducted physician shortage analyses at the national or the state level. Their publication, Healthcare, only examines growth in physician employment from 2010 and 2020 (personal communication, A. Gulish, November 13, 2014).
Schoenbaum, M. & Van Cleave, E. (2013, February). Primary care is the heart of health reform in Minnesota. Retrieved from http://www.minnesotamedicine.com/Past-Issues/February-2013/Primary-Care-is-at-the-Heart-of-Health-Reform
Association of American Medical Colleges. (2010). Physician shortages to worsen without increases in residency training. Retrieved from https://www.aamc.org/download/153160/data/physician_shortages_to_worsen_without_increases_in_residency_tr.pdf
Robert Graham Center. (2013, September). Minnesota: Projecting primary care physician workforce. Retrieved from http://www.graham-center.org/online/etc/medialib/graham/documents/tools-resources/minnesotapdf.Par.0001.File.dat/Minnesota_final.pdf
Minnesota Hospital Association (2014, July). Registered nurses and primary care physicians: How will Minnesota fare in the next 10 years? Retrieved from http://www.mnhospitals.org/Portals/0/Documents/news/RNPCPWorkforceFinal.pdf
University of Minnesota. (2013, October 23). University of Minnesota's Medical School capacity. Retrieved from http://govrelations.umn.edu/assets/pdf/reports/2013MedicalSchoolCapacity.pdf
It is also worth noting that the University of Minnesota's Medical School Capacity report's supply projection corresponds to the projected physician supply in 2020 by the Georgetown Center for Education and the Workforce
Eden, J., Berwick, D., & Wilensky, G. (Eds.). (2014). Graduate medical education that meets the nation's health needs. National Academies Press.

[iv] American Academy of Family Physicians
[v] http://www.lcc.leg.mn/lhcwc/meetings/072214/MMAPrimaryCarePhysicianWorkforceTaskForceLegislativeHealthCareWorkforceCommissionFINAL7222014.pptx
[vi] http://www.lcc.leg.mn/lhcwc/meetings/140922/merc%20program%20-%20workforce%20commission%20mtg%203.pptx
[vii] http://www.lcc.leg.mn/lhcwc/meetings/140825/MN%20Graduate%20Nursing%20Education%20%20Clinical%20Training.pptx
[viii] http://www.lcc.leg.mn/lhcwc/meetings/140825/PA%20Testimony%20for%20Work%20Force%208_23_14.pptx
[ix] http://www.lcc.leg.mn/lhcwc/meetings/140825/Legislative%20Health%20Workforce%20Commission%20U%20of%20M%20Presentation.pptx
[x] Source: University of Minnesota
[xi] Metro Minnesota Council on Graduate Medical Education
[xii] http://www.lcc.leg.mn/lhcwc/meetings/141118/Healthcare_pipeline_presentation.pdf
[xiii] http://www.lcc.leg.mn/lhcwc/meetings/141118/wilson_emerging_professions.pdf