



Michigan Family Impact Seminar

Briefing Report

Team Care Transformations for Family Health

Executive Summary

This briefing report describes the importance of educating health professions students to deliver care in a team-based, collaborative setting, in partnership with professionals from many different backgrounds. In this document, we define interprofessional education, and describe the justification and benefits of training health professions students of all types to deliver care in a multidisciplinary setting.

Like many states across the country, Michigan is facing a shortage of health care workers to deliver primary care services. An aging demographic and health care workforce will contribute to a continued inability to optimally meet the health needs of patient populations throughout the state. Due to the inevitable increase in demand for health care services, it will be crucial to develop innovative ways to increase provider capacity to see more patients and deliver a higher quality of care.

The structure of this briefing report covers Michigan's health care workforce as it exists today, an overview of what should be expected with Michigan's health care workforce in the near and distant future, and a description of the health care needs throughout the state. A discussion follows this background regarding the benefits of teaching health professions students the core competencies of interprofessional collaborative care, as well as an overview of some of those core competencies. Finally, the briefing report covers where Michigan stands nationally, in respect to the adoption of interprofessional education. We also identify current key stakeholders and their interprofessional initiatives for additional follow-up as a key action item for interested parties to pursue in order to learn more about various community activities.

Action items for Team Care Transformation stakeholders include:

- Use the information provided at the end of this brief to contact Michigan's interprofessional initiatives to learn more about their health care professional education and care delivery initiatives
- Sign up for the Michigan Health Council's monthly News Briefs at <http://mhc.org/briefs> to receive the state's latest interprofessional teamwork and health care workforce news
- Create an account with the National Center for Interprofessional Practice and Education at www.nexusipe.org to learn more about teamwork at the national level

Discussion of Evidence-Based Outcomes

Health care workforce must be a community priority given the industry's job growth, recent state/federal legislative activity, the aging demographic, and access to care along with health care disparity issues

Michigan's Current Healthcare Workforce

The number of paid employees in health care and social assistance sectors grew from 488,779 (9.9% of Michigan's workforce) in 2000 (US Census Bureau, 2011a) to 571,137 (16.9% of Michigan's workforce) in 2011 (US Census Bureau, 2011b). According to the American Hospital Association Annual Survey, presented by the Michigan Health and Hospital Association (2010), the health care sector in Michigan supports over 555,000 direct jobs and 524,000 indirect jobs. Related Wages and Salaries total over \$50.2 billion for direct and indirect employees. As a result over \$15.3 billion in Federal, State & Local tax revenue is generated annually.

The median age in the state of Michigan was 35.5 years in 2000 (Metzger, 2013), and had reached 38.9 years in 2010 (Census.gov). In 2000, 12.3% of the population of the State of Michigan was over the age of 65. In 2010, that number was 13.8%, and by 2012, that number increased to 14.6%. The aging demographic of the state of Michigan is resulting in the following:

- Increased number of Medicare enrollees
- A larger population with complex health conditions and greater health care needs

The Healthcare Workforce Shortage

Current

Michigan currently has 648 designated Primary Care Health Professional Shortage Areas, in 80 of the 83 counties in the state (United States Department of Health & Human Services, 2013). These fall in to one of three categories: 1) the service geographic area has too few primary care providers to meet the needs of the area's civilian population; 2) a population group with too few primary care providers to meet their needs (providers who see Medicare/Medicaid or low-income populations); 3) designated facilities, who provide services to specific populations. 18.2% of the population of the state of Michigan has insufficient access to primary care services, compared to 19.1% nationwide (Bradshaw, 2013). The estimated population of underserved individuals is 10.2% in Michigan, compared to 11.4% in the United States (Bradshaw, 2013). Michigan is near the national average in the number of physicians, registered nurses, and physician assistants practicing in the state, per 100,000 residents, but below the national average in the number of nurse practitioners practicing in the state (Bradshaw, 2013).

Future

According to Public Policy Associates President Jeffrey Padden (2012), Michigan will face a shortage of at least 18,000 nurses by 2020. Shortages of physicians in Michigan could be between 426 and 4,445 by the

same year (MHC, 2009). According to Bradshaw (2013), as of 2011, Michigan has the 43rd most nurse practitioners per 100,000 citizens in the United States.

Overall workforce shortages impact primary care fields for many reasons, including:

- Aging health care workforce (Harrington & Heidkamp, 2013)
- Aging patient demographic
- Increasing cost of education causes new graduates to choose different career paths
 - The average Class of 2012 medical student graduated with \$166,750 in student loan debt (AAMC, 2012)
 - According to the Bureau of Labor Statistics (2013), the average annual compensation of primary care physicians is \$202,392, whereas the annual compensation of specialty physicians is \$356,885

As of 2012, Michigan has 117.4 primary care physicians per 100,000 residents (ranked 23rd in the United States), compared with 119.9 nationally (State of Michigan, 2013). Roughly 32% of doctors nationally currently practice in primary care. The good news is that the number of medical students committing to careers in primary care has increased for four years straight (Lloyd, 2013). Though some of this can be attributed to governmental efforts to encourage new graduates to pursue careers in primary care, through programs such as the Michigan State Loan Repayment Program, and the National Health Service Corp's Loan Forgiveness Program, much larger efforts are needed to effectively address the shortage of primary health care professionals in a meaningful way.

Patient Needs

According to the 2012 United Health Foundation – America's Health Rankings, Michigan ranked 37th in the country in overall health. The America's Health Rankings report combined with the Health Risk Behaviors in the State of Michigan (2012) survey find:

- 31.3% of the state population was classified as obese (46th in the country), whereas the US median is approximately 28%
 - Prevalence of obesity among Black, non-Hispanic adults (41%) is nearly 40% higher than the obesity prevalence among White, non-Hispanic adults (29.7%)
- Approximately 29% of Michigan residents met the muscle strengthening guideline from the state, regarding physical activity
- 23.3% of Michigan's population over the age of 18 smokes on a regular basis (40th in the country), and the level of binge drinking in Michigan exceeds the US median level
- 10% of the population is diabetic (30th in the country), including 1 in 5 adults over the age of 65
- Michigan ranks 42nd in the country in cardiovascular deaths, with 303.2 deaths per 100,000 citizens

In contrast, when reviewing the rankings of our neighboring states:

- Ohio ranked 35th in the country in overall health

- Wisconsin ranked 16th in overall health
- Only Indiana (41st in overall health) ranked lower than Michigan

Team-based student clinical education and practice improvements offer opportunities for all health workforce stakeholders to evaluate process and outcome measures associated with quality patient care

Provisions in the Patient Protection and Affordable Care Act that require most Americans to carry health insurance will increase the market for Michiganders seeking primary care services, which may cause shortages in health professionals ready to provide these services. This potential workforce shortage, along with an increasingly aging population and increasing numbers of people with chronic and complex health conditions necessitate the adoption of a creative approach to training future health professionals to most effectively meet the health needs of populations throughout the state of Michigan. It will not be enough to simply train more health professionals—a different model of health professional training will need to be implemented.

Since more than 1 million Michigan residents may become insured under the Patient Protection and Affordable Care Act in 2014 (Snyder, 2011), it will likely take longer to find and visit a primary care provider. While it would be ideal to quickly have a sufficient number of health professionals to meet the demand of this new and expanded health market, educators, health professionals, association leaders, and policymakers instead need to explore ways of increasing the capacity to provide health services in a more effective, efficient, and economical way. Interprofessional education may be one part of the creative solution to improve the system's ability to meet population needs.

Interprofessional education is defined as occurring “when two or more professions learn about, from and with each other to enable effective collaboration and improve health outcomes” (WHO, 2010). During this training, students learn to deliver health services as a member of a patient care team, defined as “a consistent grouping of people from relevant clinical disciplines, ideally inclusive of the patient, whose interactions are guided by specific team functions and processes to achieve team-defined favorable patient outcomes” (Wiecha & Pollard, 2004).

Interprofessional collaborative practice is defined as occurring “when multiple health workers from different professional backgrounds provide comprehensive health services by working with patients, their families, caregivers and communities to deliver the highest quality of care across settings” (WHO, 2010).

Learners who acquire interprofessional competencies during their college/university-level health professional training have the unique ability to provide healthcare services in a team-based setting. Graduates from health professions programs will enter Michigan's workforce with the competencies to provide patient-centered care along with a diverse team of health professionals. The benefits of educating students in, and providing care through a team-based approach include:

- Improved access to care (HealthForce Ontario, 2010)
 - Truong, et al (2012) implemented an interprofessional model with medication therapy management services, to improve access to health care and quality for underserved populations
- Improved patient safety (Government of Manitoba, 2012)
- Reduction in hospital admissions and lengths of stay (Government of Manitoba, 2012)
- Improved outcomes for patients with chronic diseases (HealthForce Ontario, 2010)
 - Patients with Type 2 diabetes—who were seen by a health care team—showed better health care outcomes than those seen by only general practitioners (Jacobson, 2012)
- Increased capacity to service a variety of care needs (Government of Manitoba, 2012)
- Improved workplace and provider satisfaction (Barrett et al, 2007)
- Lower rates of staff turnover (HealthForce Ontario, 2010)
- More comprehensive, better coordinated care (Barrett et al, 2007)

Furthermore, behaviors changed in simulation environments with nursing students gradually becoming more comfortable interjecting in conversations with the patient and medical students, if they felt they could better explain something to the patient (Hammick et al, 2007). For students who participated in an interprofessional learning experience in a rural setting, the participants demonstrated positive changes in their perceived knowledge after the experience (Sisson and Westra, 2011), and stronger agreement that “patients will ultimately benefit if health care students work together to solve patient problems” (Whelan, Spencer, and Dalton, 2011).

The World Health Organization’s position (2010) is that “Interprofessional health-care teams understand how to optimize the skills of their members, share case management and provide better health-services to patients and the community. The resulting strengthened health system leads to improved health outcomes.” Through this approach, health care teams provide comprehensive, patient-centered care that meets all of the health needs of the patient and their family.

Among many core competencies that need to be acquired by team members, interprofessional care delivery is characterized by the following elements (IPEC, 2011):

- The patient’s health is central to all team decision-making
- Each member of the care team is responsible for team processes, decisions, and outcomes
- Team members bring their own unique approach to care delivery, personal and professional background, and strengths to the team
- All members of the team embrace overlap in scope of practice, and complement each other’s skills
- Professionals should practice to the furthest extent of their scope of practice—maximizing each team member’s skills and abilities
- Team members are able to clearly articulate their role on the team, along with the roles of each of the team members, to each other, and to the patient and their family

- Health professionals are able to communicate respectfully and clearly with each other and patients/families, adopting a common language without the use of jargon
- Ensure mutual respect among professions and patients
- Create defined team member roles to ensure safe/effective care
- Adopt shared problem-solving and decision-making to minimize gaps, redundancies, and errors across the care continuum

Michigan is emerging as a national leader in interprofessional education and practice (IPE/P) under the Michigan Department of Community Health’s leadership by working with higher education institutions, non-profits, and care facilities on several initiatives

With efforts being pursued by universities, nonprofit organizations, and other healthcare stakeholders, the state of Michigan, with leadership from the Michigan Department of Community Health, is at the forefront of adopting interprofessional education at a systemic level. The involvement of state government is critical to the successful adoption of collaborative learning and care throughout Michigan. Much of the successes in interprofessional learning and care that have been achieved in the Canadian province of Ontario can be attributed in part to early government involvement and promotion of initiatives throughout the province (McMaster, 2008). The keys to success and sustainability lie in the engagement of all key stakeholders—including lawmakers, government agencies, health care providers and administrators, and educators—when mobilizing champions to integrate the core competencies of collaborative practice into both education and health care settings (University of Toronto, 2012). At the national level, the National Center for Interprofessional Practice and Education at www.nexusipe.org seeks to achieve a similar measure of success with funding in part from the U.S. Department of Health and Human Services Health Resources and Services Administration. This University of Minnesota-based center launched in October 2012 with the following goals: improved quality of experience for people, families, communities and learners; shared responsibility for achieving health outcomes; and reduced cost and added value in health care delivery and education.

With the Michigan Department of Community Health’s guidance and leadership, the state of Michigan has a state-level consortium that meets to lay the groundwork for interprofessional education and care that aligns with international and national efforts. Many of Michigan’s teamwork champions have initiatives specific to the needs of the environment in which they are located, and fit the culture of their institution. The following organizations are involved in initiatives to promote both team-based learning and care:

- Central Michigan University
- Ferris State University
 - Faculty Development Series (in partnership with Michigan State University)
 - Interprofessional Wellness Clinic
- Grand Valley State University
 - West Michigan Interprofessional Education Initiative
- Michigan State University
 - Faculty Development Series (in partnership with Ferris State University)

- Primary Care-Mental Health Co-Location Project (in partnership with the Ingham County Health Department)
- Saginaw Valley State University
- University of Michigan, Ann Arbor
- Michigan Department of Community Health
- Michigan Health Council
 - Education to Practice Initiative
- Michigan Area Health Education Center
- Wayne State University
 - Interdisciplinary Older Adult Home Visit Program

Interprofessional Networking Session – Featured Initiatives

Ferris State University Interprofessional Wellness Clinic

The Ferris State University Interprofessional Wellness Clinic opened in January, 2004 and incorporates Optometry, Nursing, and Pharmacy students who treat and educate patients as a team. The clinic has been nationally recognized, receiving the First Place Interdisciplinary Award in the 2004 Department of Health and Human Services Secretary's Award for Innovation in Health Promotion and the American Public Health Association's Vision Care Section Beta Sigma Kappa Student Award in 2006. Through clinical education experiences, students learn how to take a team-based approach to primarily treating patients with diabetes, but also high blood pressure, high cholesterol, asthma, and emphysema, among other conditions.

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Michigan Health Council-Education to Practice Initiative

Education to Practice is a statewide initiative encouraging health educators and professionals to take action to increase the number of high-functioning health care teams capable of caring for the whole patient. Education to Practice focuses efforts of promoting interprofessional education through the following means:

- Outreach to clinical environments where collaborative learning can occur
- Sharing leading practices in interprofessional education and care, and publicly-available resources for educators and health professionals online at www.education2practice.org
- Connecting educators and health professionals with various models of interprofessional education
- Convening stakeholders to assess the progress of various initiatives in Michigan

Visit www.education2practice.org to learn more about the following notable activities and deliverables:

- The 2012 and 2013 Northern Michigan Interprofessional Education Conferences, held in collaboration with Central Michigan University, Ferris State University, Saginaw Valley State University, and the Michigan Area Health Education Center
- Education to Practice Tool Kit – a publicly-available resource for educators and health professionals to use when integrating interprofessional education and care into their work
- Workgroup meetings, where healthcare stakeholders convene regularly to lay the groundwork for implementing interprofessional education and care at a systemic level in Michigan

Contact:

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Michigan State University/Ferris State University Interprofessional Education Faculty Development Series

“Interprofessional Education: A Certificate Program for Health Care Providers” is a faculty development series, with the aim to provide attendees with a theoretical and practical background in interprofessional education and collaborative care. The faculty development series is divided into three sections, sequentially building upon one another, and addressing the following subject areas:

- Discussing team member attributes and ways to work collaboratively
- Overcoming barriers of interprofessional education and patient care
- Developing learning activities to incorporate IPE and IPC into classroom, laboratory, and clinical settings

The workshop aims to simulate the experience of working on an interdisciplinary group. Attendees are expected to engage in group activities during the workshop, as a way of experiencing interaction and teamwork on an interprofessional team.

Faculty members who complete the three-part workshop will receive a certificate of completion.

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University of Michigan School of Dentistry Interprofessional Clinical Immersion Experience

The University of Michigan School of Dentistry Interprofessional Clinical Immersion Experience seeks to improve learning, patient care, and organizational efficiency using an andragogical interprofessional education model for primary health care environments that is financially self-sustaining. Outcomes include improved patient care, patient satisfaction in their care, learning by both students and staff, and organizational efficiencies for the faculty. The benefits of the Interprofessional Clinical Immersion Experience that can accommodate virtually any health professional include:

- Underserved communities experience increased access to care
- Health care sites realize increased and more consistent productivity of federal, state, and community funded programs
- Students enhance their clinical skills and broaden their experience base to include an ethic of caring
- Higher education institutions gain a form of predictable and full coverage of all program costs
- Clinical sites solve a chronic manpower problem by noting a significant increase in recruitment of recent graduates as practitioners and interest in donated services

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West Michigan Interprofessional Education Initiative

The West Michigan Interprofessional Education Initiative (WMIPEI) is a regional inter-institutional collaborative partnership between the Grand Valley State University-Office of the Vice Provost for Health, Michigan State University-College of Human Medicine, and Grand Rapids Medical Education Partners. It serves as West Michigan's academic center for excellence in interprofessional education, and has incorporated a model of interprofessional education, based on the Institute of Medicine's core competencies of IPE, to bridge practice with education. WMIPEI currently hosts interdisciplinary workgroups, which meet on a regular basis, and the Annual West Michigan Interprofessional Education Conference in Grand Rapids, Michigan.

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