

Structuring a Regional Model for Infusing Interprofessional Education and Practice

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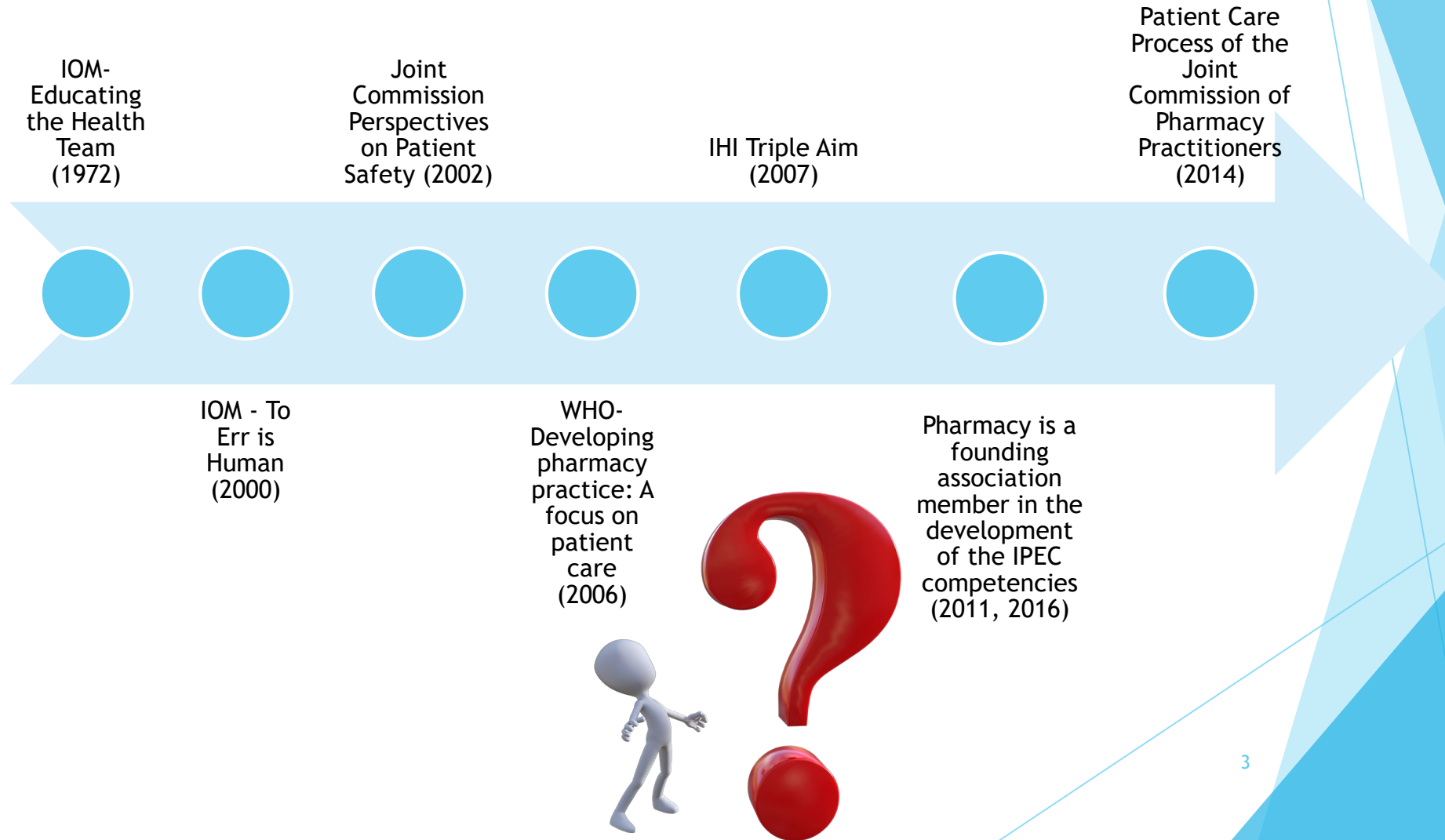
Presentation Objectives



- ▶ Examine the evolution of the Midwest Interprofessional Practice, Education and Research Center (MIPERC)
- ▶ Assess an infrastructure to infuse interprofessional education and collaborative practice into the healthcare academic community and clinical learning environments



Why Interprofessional Education (IPE) and Interprofessional Collaborative Practice (IPCP)?



Interprofessional Education Collaborative (IPEC)

The expert panel comprising the IPEC in the development of competencies is the partnership of six founding associations and expanded to include nine institutional members:

Founding Associations

- ▶ American Association of Colleges of Nursing
- ▶ American Association of Colleges of Osteopathic Medicine
- ▶ American Association of Colleges of Pharmacy
- ▶ American Dental Education Association
- ▶ Association of American Medical Colleges
- ▶ Association of Schools of Public Health

Institutional Members

- ▶ American Association of Colleges of Podiatric Medicine (AACPM)
- ▶ American Council of Academic Physical Therapy (ACAPT)
- ▶ American Occupational Therapy Association (AOTA)
- ▶ American Psychological Association (APA)
- ▶ Association of American Veterinary Medical Colleges (AAVMC)
- ▶ Association of Schools and Colleges of Optometry (ASCO)
- ▶ Association of Schools of Allied Health Professions (ASAHP)
- ▶ Council on Social Work Education (CSWE)
- ▶ Physician Assistant Education Association (PAEA)

IPE Foundational Information: Definitions & Resources



What is Interprofessional Education?

- ▶ The World Health Organization's (WHO) definition of IPE:
 - ▶ When (students from) two or more professions learn about, from, and with each other to enable effective collaboration and improve health outcomes.



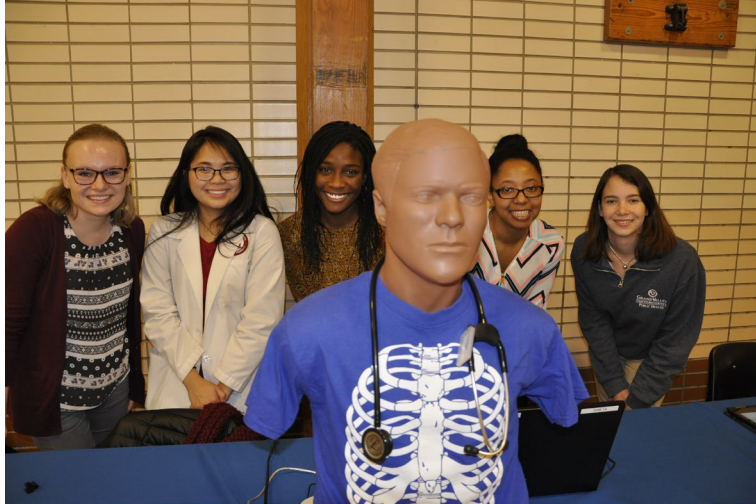
What is Collaborative Practice?

Collaborative Practice occurs when multiple health workers from different professional backgrounds provide comprehensive services by working with patients, their families, and communities to deliver the highest quality of care across settings.



World Health Organization. (WHO). (2010) Framework for action on interprofessional education & collaborative practice. Geneva, Switzerland: World Health Organization.

What is Interprofessional Service Learning?



Interprofessional service learning: “Interprofessional service- learning is a form of experiential education in which two or more professions engage in activities that address human and community needs together with structured opportunities intentionally designed to promote active and reflective learning about, from, and with each other to enable collaboration and improve health outcomes.”

(Used with permission from Jacoby, B. (2015). *Service-Learning Essentials: Questions, Answers, and Lessons Learned*, San Francisco: Jossey-Bass; WHO 2010)

Midwest Interprofessional Practice, Education & Research Center

- ▶ Partnership among health educational institutions, individual professionals from twelve disciplines, and multiple practice partners
- ▶ Began in 2007 as the West Michigan Interprofessional Education Initiative (WMIPEI)
- ▶ Renamed the Midwest Interprofessional Practice, Education, and Research Center (MIPERC) in 2015 to reflect the member base
- ▶ Currently comprised of 26 organizational and 140+ individual members
- ▶ Mission: To identify ways that the members can develop collaborative, innovative, and interprofessional initiatives across disciplines, learning institutions, and health care systems

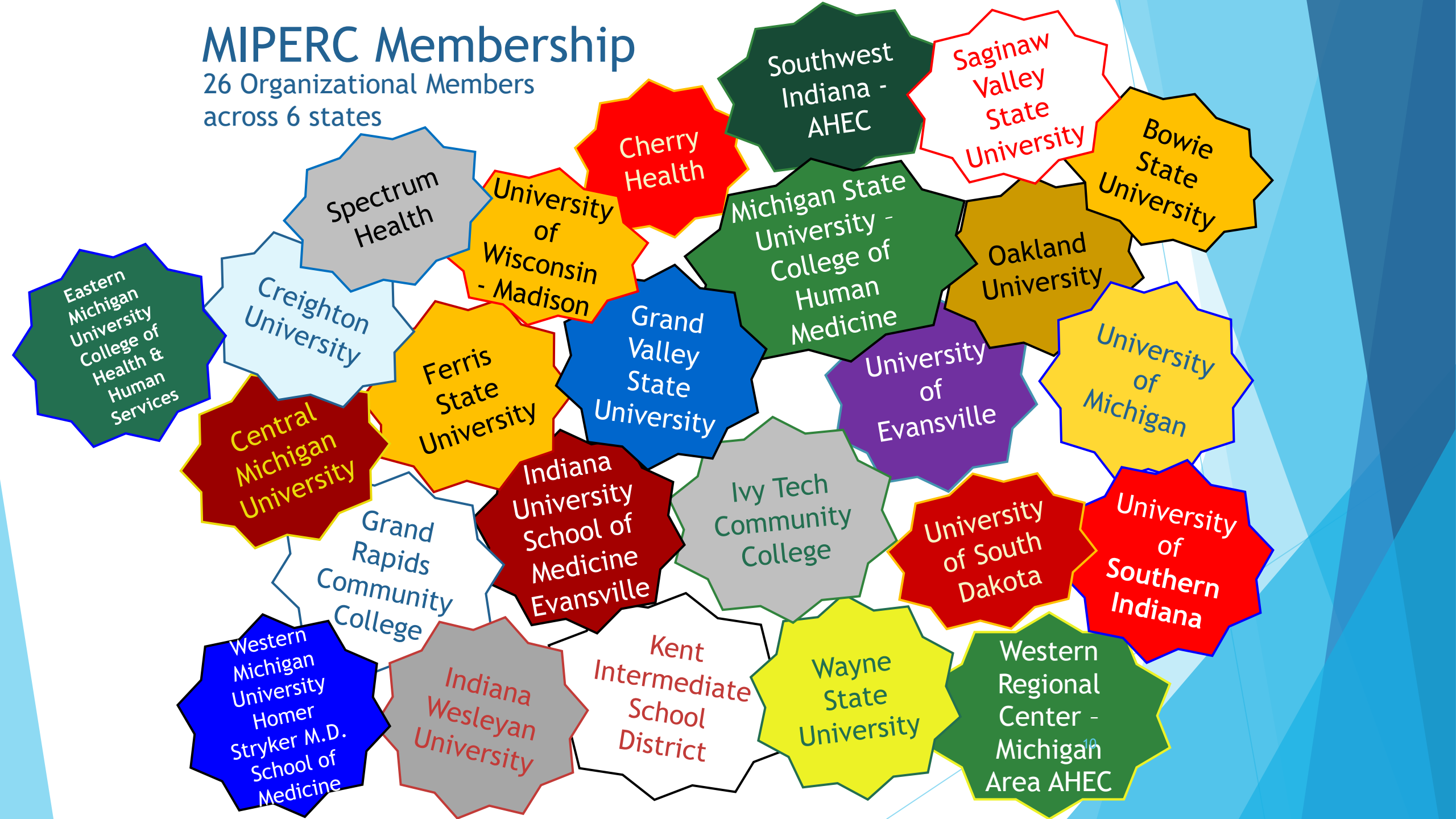


Midwest Interprofessional
Practice, Education, and Research Center

Creating Teams for Patient Centered Care

MIPERC Membership

26 Organizational Members
across 6 states



Eastern Michigan University College of Health & Human Services

Creighton University

Spectrum Health

University of Wisconsin - Madison

Cherry Health

Southwest Indiana - AHEC

Saginaw Valley State University

Bowie State University

Michigan State University - College of Human Medicine

Oakland University

Ferris State University

Grand Valley State University

University of Evansville

University of Michigan

Central Michigan University

Grand Rapids Community College

Indiana University School of Medicine - Evansville

Ivy Tech Community College

University of South Dakota

University of Southern Indiana

Western Michigan University Homer Stryker M.D. School of Medicine

Indiana Wesleyan University

Kent Intermediate School District

Wayne State University

Western Regional Center - Michigan Area AHEC

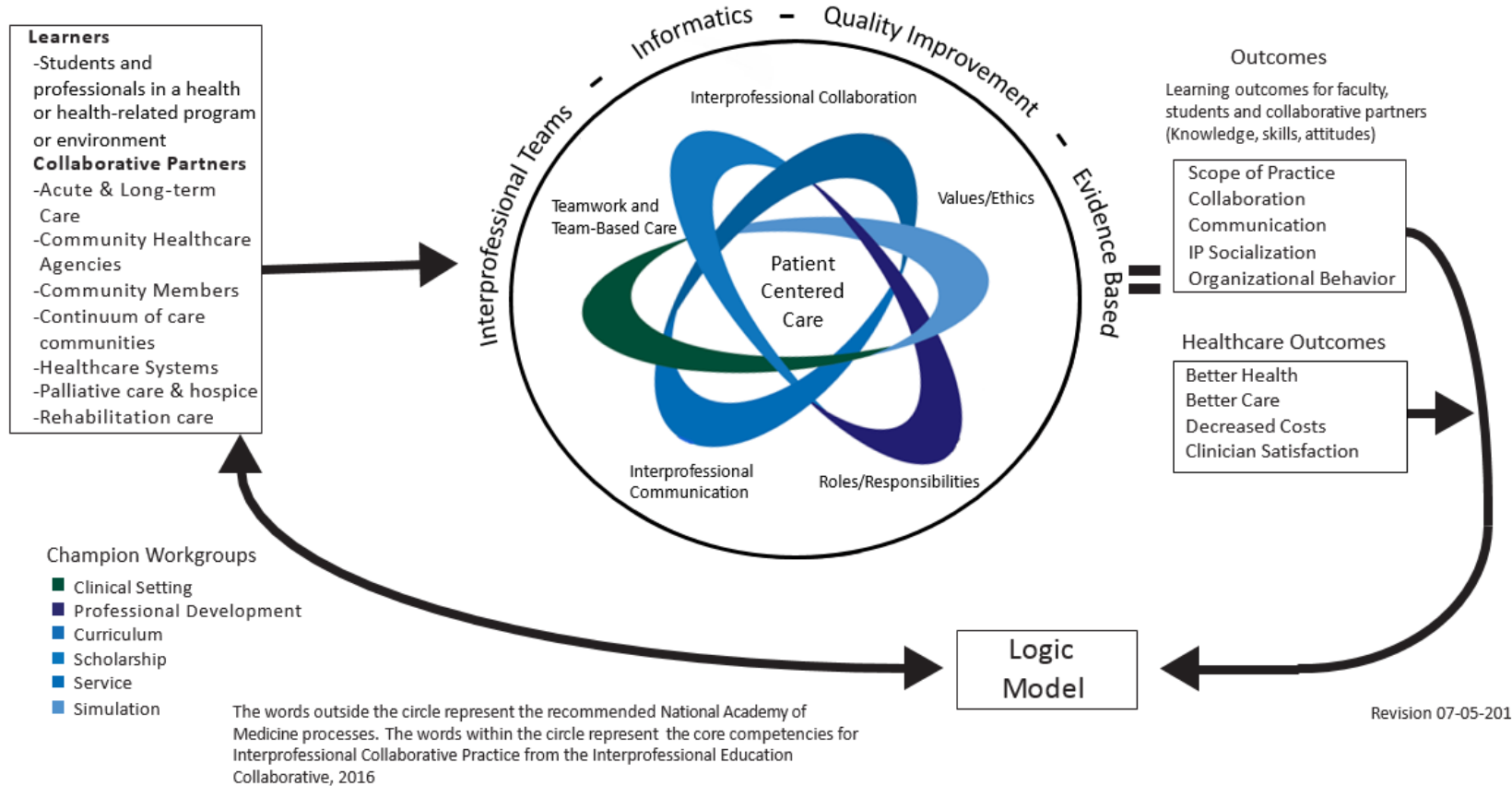
Midwest Interprofessional Practice, Education & Research Center

The goals of MIPERC are to:

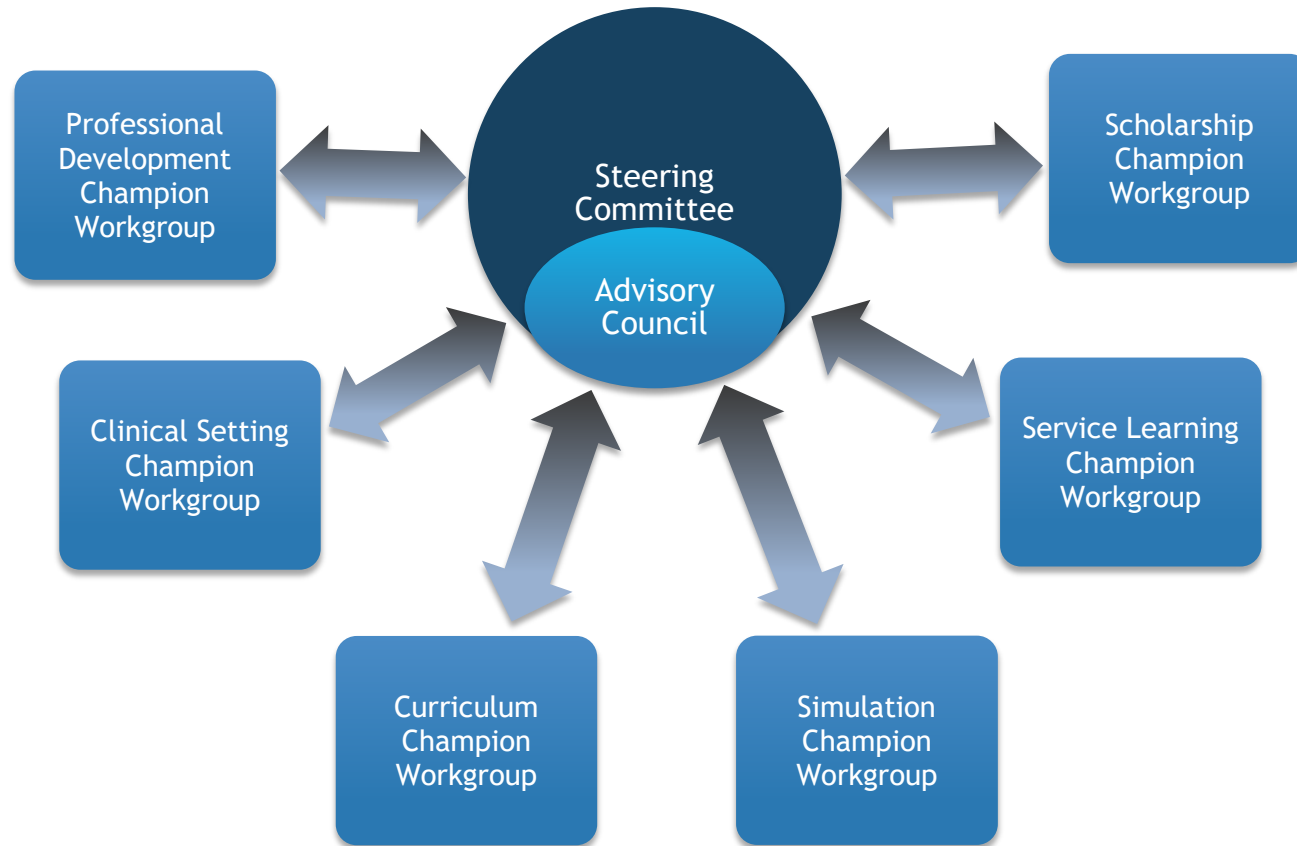
- 1) Integrate interprofessional learning throughout the curricula
- 2) Identify, develop, implement, and assess interprofessional clinical experiences for teams of students to practice and learn about, from and with each other (to enable effective collaboration and improve health outcomes)
- 3) Implement interprofessional scholarship across disciplines and institutions

MIPERC Model

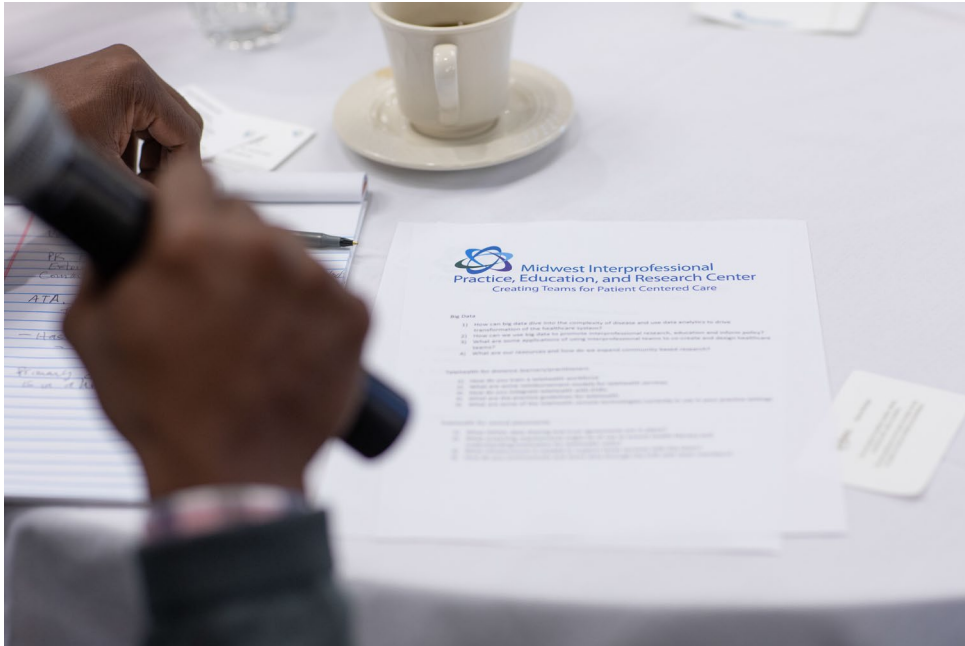
Midwest Model of Interprofessional Practice, Education, and Research A Model Contributing to Transforming US Healthcare



MIPERC Infrastructure



MIPERC as AIHC Designated Conference



- ▶ “This conference provides a great opportunity for scholars and advocates in the area of IPE and IPCP to intersect and connect with decision-makers at academic and health care institutions. It also provides the opportunity for *MIPERC to be clearly identified nationally and internationally* as an organization that is committed to promoting and supporting IPE and IPCP.” AIHC Press Release

**American Interprofessional
Health Collaborative**

Transcending Boundaries: Transforming Learning

14



Mark your calendars!

2019 MIPERC Conference

September 19 & 20, 2019

The Next Wave: Embedding IPE Initiatives within Health Professions Education and Practice Settings

1. Discuss the impact, clinical benefits, and costs of IPCP environments.
2. Discuss models and approaches for embedding IPCP and IPE initiatives into practice settings involving academic-service partnerships.
3. Describe what lessons have been learned by faculty and healthcare administrators as they have collaborated to establish IPCP environments involving health profession students and professional healthcare staff.
4. Describe the preparation needed to assist organizations as they consider establishing IPCP environments, including leveraging and navigating power structures, relationship building, and transformation of interactional barriers.
5. Cite successes for mutually beneficial, enduring academic-community agency alliances, which extend beyond student placements.

Regular Events and Opportunities

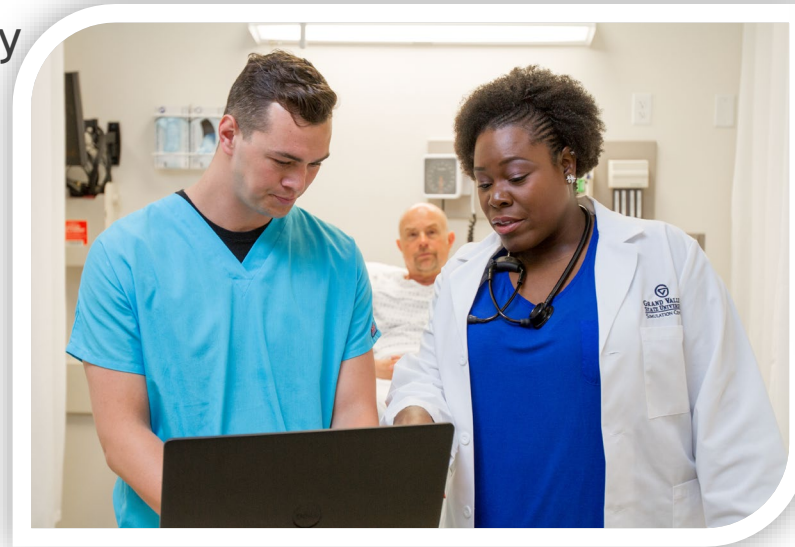
- ▶ Monthly Lunch and Learn Series
- ▶ Promoting Interprofessional Education for Students (PIPES)
- ▶ Health Forum -2018/2019

- ▶ IPE Student Certificate
- ▶ Professional Development Certificate



Scholarship research projects

- ▶ Patient safety in a Children's Hospital
- ▶ Veterans Traumatic Brain Injury in a Rehabilitation Center
- ▶ Cherry Street Primary Care Diabetes Outcomes
- ▶ Nurse Managed Centers Obesity Study
- ▶ Scribes Role on the IP Team in ED



MIPERC Mini-grant Awards

- ▶ Research should support the mission of MIPERC and align with one of the priorities identified by the National Center for Interprofessional Practice and Education
- ▶ Three grants (\$1,000 each) awarded annually
- ▶ Recipients must be an employee of a MIPERC academic or practice partner organization
- ▶ Deadline: August 15, 2019



MIPERC Awards of Excellence

The MIPERC mission is to identify ways that the members can develop collaborative, innovative and interprofessional initiatives across disciplines, learning institutions and health care systems.

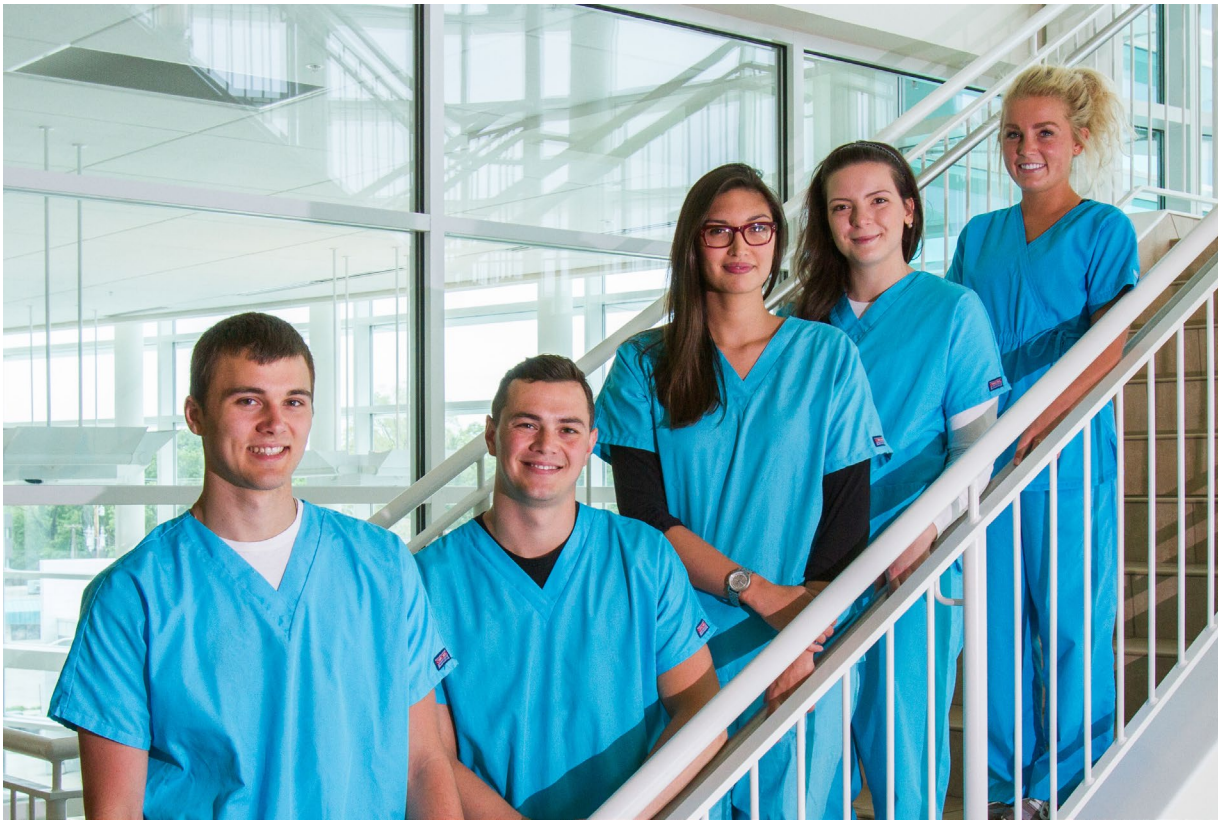
- ▶ Vision statement: healthcare team members and students will incorporate IP Collaborative education and practice as a best practice to transform healthcare environments and improve health for individuals, families and communities.
- ▶ These awards provide us an opportunity to acknowledge the outstanding commitment and contribution to the mission and vision



Benefits of MIPERC Membership

- ▶ Networking opportunities that include advisory council representation in a six state region, serving on interprofessional workgroups, sharing expertise in education and clinical settings for interprofessional collaborative practice and education
- ▶ Planning and participation for the annual MIPERC conference and preconference
- ▶ Attendance at the Annual Members Only Luncheon
- ▶ Apply for Mini-Grant Awards
- ▶ Participate in the Student Simulation competition
- ▶ Access to the MIPERC members only page and resources
- ▶ Showcase your Interprofessional scholarship and demonstration efforts in the bi-annual newsletter
- ▶ Potential opportunity for multiple site grant funding

Questions?



Thank you!



IPE – Learnings for Multiple Discipline Learners in a Non-teaching Federally Qualified Health Center

Amy Tompkins, L.M.S.W, Facility Manager,
Cherry Health, Grand Rapids, Michigan

Susan DeVuyst-Miller, Pharm.D., Assistant Professor, College of
Pharmacy, Ferris State University, Big Rapids, Michigan



- Practice Site

- Cherry Health, Adult Medicine Clinic
Grand Rapids, MI
- Ambulatory Care (PHAR 602)
- Integrated Team Based Care elective with GVSU





Cherry Street

- Practice Site
 - Cherry Health, Cherry Street Health Center
 - Grand Rapids, MI
 - Social Work Background
 - Medical Practice and Facility Management



The Nexus – National Center for Interprofessional Practice and Education

- Formed in October 2012 through a cooperative agreement with:
 - Department of Health and Human Services
 - Health Resources and Services Administration (HRSA)
 - Josiah Macy Jr. Foundation
 - Robert Wood Johnson Foundation
 - Gordon and Betty Moore Foundation
 - John A Hartford Foundation
- HRSA awarded the center designation to The University of Minnesota
- Mission - provide leadership, scholarship, and evidence to advance interprofessional education and practice



Important Aspects of the National Center for Practice and Education - Nexus Initiative

- Practice and Education Intersection
- Expanding Team Based Student Learning Environments
- Adding to the Evidence Base in IPE & IPCP
- Pioneer on the Process and Lessons Learned about Implementation of IPCP



Improving Outcomes in Adults with Diabetes Through an Interprofessional Collaborative Practice and Education Program

Study Purpose

- Examine the effects of implementing an IPCP program in a health clinic of Michigan's largest Federally Qualified Health Center

Other Aims

- Provide initial data to the National Center for Practice and Education research database as a Pioneer Site.
- Assess effects of student learners on clinical productivity.

Research Questions

- Does implementation of an IPCP model effect **patient outcomes**?
- Does implementation of an IPCP model effect **patient and worker satisfaction**?
- Does placing a team of students in an IPCP environment effect **access to care**?
- Does the **cost of care** change with implementation of IPCP?





Study Tools

Patient Outcomes

- Patient Outcome Data: BP, Lipid Panel, Diagnoses, HbA1c, Annual Foot, Eye, and Dental Exams

Patient and Worker Satisfaction

- Practitioner, staff, and patient satisfaction surveys

Access to Care

- Number of patients served at site and by provider

Cost of Care

- Cost of treatment per patient



Other Tools

- IPE/IPCP Assessments
 - Interdisciplinary Education Perception Scale (attitudes about IPE in own profession)
 - Entry Level Interprofessional Questionnaire (attitudes about IPE by individual)
 - Collaborative Practice Assessment Tool (assessment of ICP performance)
- Student and Practitioner Program Evaluations
- Monthly Student and Practitioner Focus Group Meetings
- Network Users Survey & Student Users Survey
- Pre and Post Module Tests

- Study participants included adults with a diagnosis of diabetes
- Cherry Street healthcare team included:
 - Physician, Medical Assistant, Patient Registration Services, Nurse, Dietician, and Clinical Site Manager
- Healthcare team will worked with students from three disciplines:
 - MSU-CHM: Medical
 - FSU: Pharmacy
 - GVSU: Physician Assistant





Study process

- Practitioner/student training in foundational Interprofessional collaborative practice modules, daily huddles, collaborative care planning and team case presentations
- Clinical setting intervention- program specific content delivered over three months, food/activity logs, patient-centered goals measured and assessed at each visit, selected clinical indicators collected



IPCP Training

Six Online Training Modules Include:

- *Preceptor Education
- *Faculty Development
- Learners Introduction to Interprofessional Education
- Safety Culture
- Team Building and Team Dynamic
- Patient Motivational Interviewing

*Faculty and Staff Modules



Student Teams Clinical Experiences

- Student & designated preceptor
- Preceptors used interprofessional exercises from the interprofessional preceptor manual
- Student teams:
 - Reviewed one patient chart for medication review (multiple medications) and made recommendations to a preceptor
 - Made a team appointment with one patient to present their findings to a preceptor
 - Completed patient call backs with an RN supervising





Student Teams Clinical Experiences

- Completed a minimum of 3 patient visits independently with their assigned preceptor per day
- Engaged in daily huddles
- Presented a 5 minute case presentation each week using the collaborative care plan guidelines
- Conducted group diabetic classes





Implementation of IPCP at FQHC

- 20 staff members
 - Live trainings (2 hours)
 - online modules (6 hours)
- Students oriented through Cherry Health
 - GVSU Physician Assistant Program
 - MSU Medical School
 - FSU College of Pharmacy
- 250 patients with diabetes consented and participated in the research.



Student Rotations

- The rotations varied in length
 - PA student - 8 weeks
 - Pharmacy students - 6 weeks
 - Medical students - 4 weeks
- Rotations overlapped & cycled
- Identified site preceptor

A typical day

- They would huddle in the morning and conference with the providers actively throughout the patient visits. Some students met with the majority of the provider's patients. While others, only met with 8-10 patients per day who were identified through that provider's huddle.
- Students would work directly with their providers seeing their patients throughout the day.
- The providers all seemed to share the Pharmacy Students.

Student Collaboration

- Each day at least one patient was identified by all the providers who would have a visit with all 3 students simultaneously.
- Students worked with triage RN to identify patients that they could make return phone calls to.
- Students worked with Diabetes Educator to facilitate monthly Diabetes Education Classes. These groups were very well attended and the students and patients both found them very beneficial.



Table 1. Demographics of study participants.

Group	N	Age Mean (SD)	Gender Frequency (%)		Race Frequency (%)			
			Male	Female	White	Black	Asian	Other
Students	22	27.0 (3.8)	11 (50.0)	11 (50.0)	20 (90.9)	0	2 (9.1)	0
Staff	20	41.4 (14.3)	2 (10)	18 (90)	12 (66.7)	2 (11.1)	2 (11.1)	2 (11.1)
Patients	250	57.3 (12.1)	96 (38.4)	154 (61.1)	96 (38.4)	120 (48.0)	22 (8.8)	12 (4.8)

Online Module Score Change

Group N	Module	Pre	Post	p-value
Student (22)	Safety	66.7	84.3	<.001
	IPE	63.9	65.7	0.459
	Teamwork	54.9	70.6	<.001
	Tips*	68.5	83.7	<.001
Staff (17)	Safety	68.6	77.3	0.048
(16)	IPE	56.7	58.7	0.493
(17)	Teamwork	49.8	61.6	0.008
(19)	Tips*	61.7	70.5	0.001

*Tips = Tips for Implementing Healthcare Behavioral Changes Module;

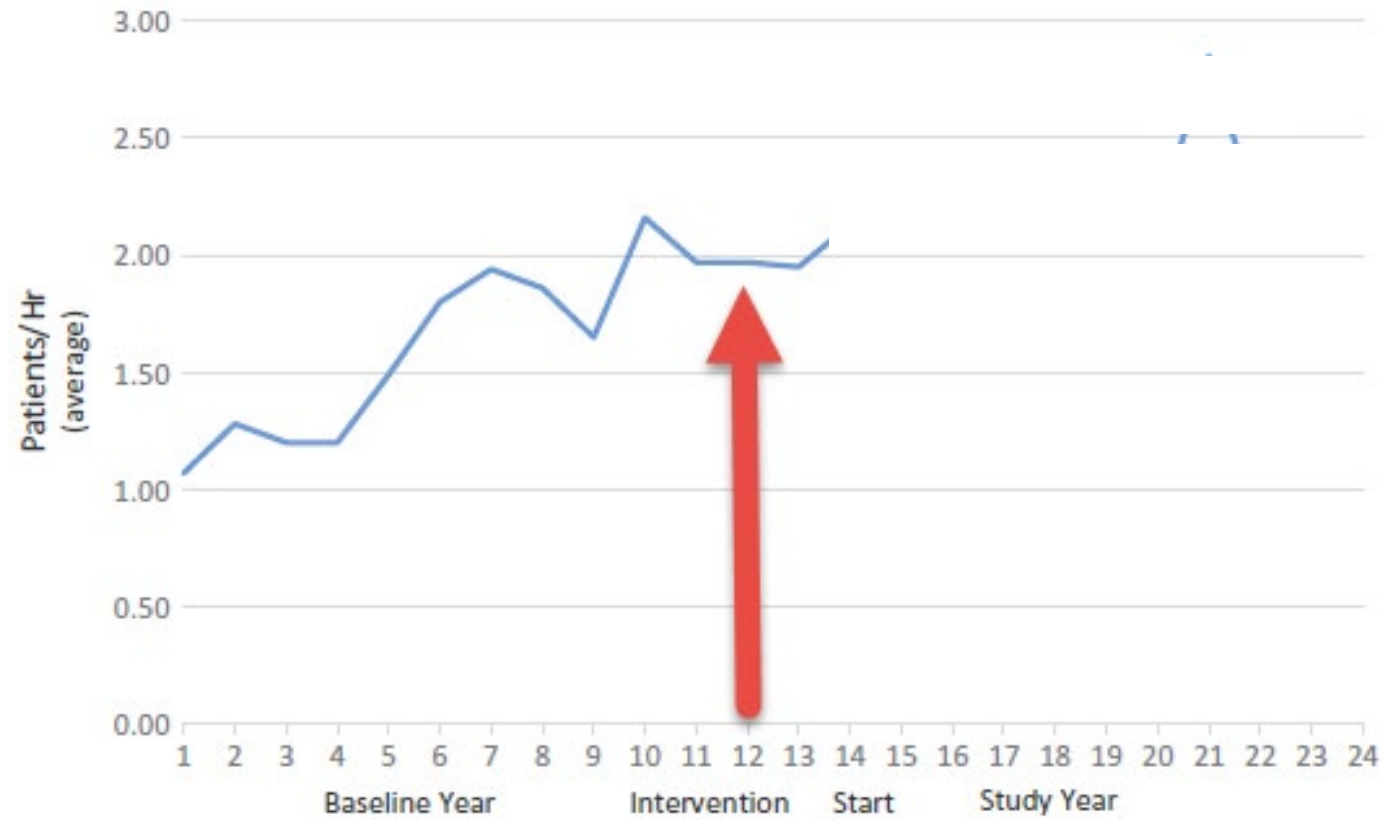
Clinical Indices

Outcome Indicator	N	Pre	Post	p-value
A1c	91	8.9		
BMI	89	33.4		
BP – Systolic	91	136.9		
BP - Diastolic	91	81.3		
Cholesterol	45	192.5		
Glucose	89	199.0		
HDL	45	45.6		
LDL	44	107.2		
Ratio (Total/HDL)	38	4.5		
Triglyceride	45	196.8		

Recommended Annual Exams

		Examinations Performed		
Exam Type	N	Pre	Post	p-value
Dental	242	26		
Eye	242	45		
Foot	242	51		

Physician Visit Productivity





Practice Influencing Education

- Critical to recognize that cycle time is crucial to providers and patients – having students adds time
- Provider productivity and working around patient schedules
- Needed to EXPAND the number of persons served (Medicaid Expansion – ACA)
- Blocking provider schedules for 6 hours for training is very challenging. Training was at times too lengthy and redundant for providers.
- How would the project affect other professional and non-professional care providers within the clinic besides the student learner disciplines (medicine, PA, pharmacy)?
- Cherry Health has a patient satisfaction survey that they would not change for the study

Education Influencing Practice

- Value of interprofessional practice
- Team Work Enhanced
- Fresh Perspectives
- Providers loved teaching

Student testimonial

- It was great when a physician would approach me and want my opinion on what they should prescribe a certain patient.
- Physicians, NP's, nurses, dietitians, and pharmacists all work together, so patients get better personalized care.
- Cherry Health is the best!
- I learned so much at Cherry Health, due to the inter-professionalism practiced there every day.



What we didn't expect to learn

- Much learning or data came from the focus groups. Qualitative research methodology would have strengthened the project.
- Despite learning modules, we created checklists and scripts to help student teams learn to work together more effectively.
- Not all learners want to engage in IP learning teams.
- HRSA approached the team to do a second year to demonstrate sustainability and reproducibility with different learner groups in a different setting.

Cherry Street Health Center



**Who we
are...**

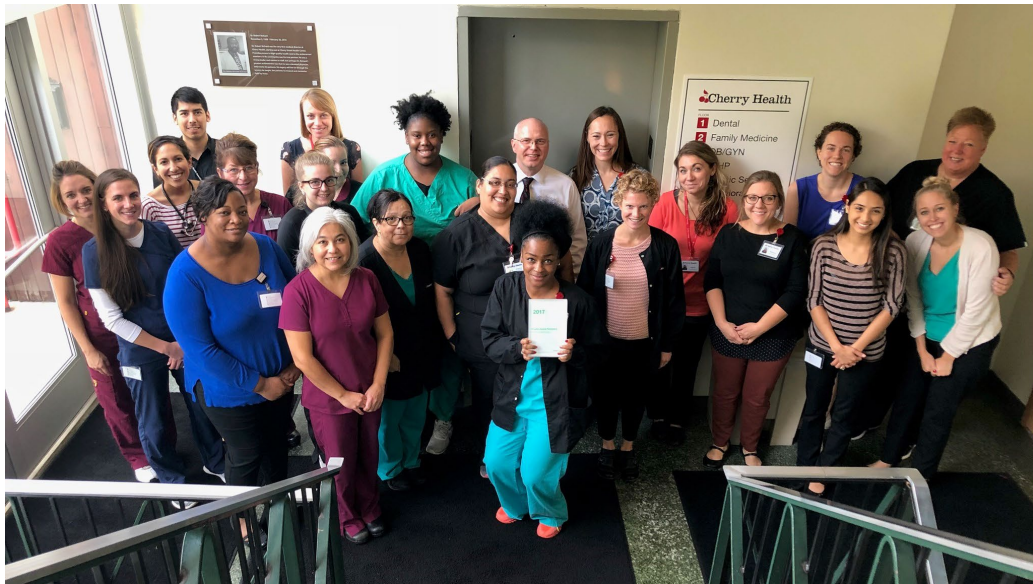
**Michigan's largest Federally
Qualified Health Center (FQHC)**

**More than 20 locations statewide
and over 800 employees**

**Network of greater than 60 health
care providers**

**Locations in Barry, Eaton, Kent,
Montcalm, Muskegon and Wayne
counties**

**Services include: primary care,
women's health, pediatrics, dental,
vision, pharmacy, behavioral health,
mental health, correctional health,
school based health centers, school
linked program**



Cherry Street Health Center

- Cherry Street Health Center is the original location of Cherry Health.
- Comprised of 3 floors:
 - Dental
 - Family Practice
 - Woman's Health
- The Cherry Street location sees approximately
 - 600 medical patients weekly
 - 75 medical employees

Primary Care

- Cherry Street Health Center is a Primary Care Patient Centered Medical Home with NCQA level 3 designation.
- Our Family Practice is comprised of two care teams. Each team is co-located and has a RN team lead, 3 providers, and 4 Medical Assistants, an interpreter and a PRS.
- Our team members include: providers (MD, NP, PA), RN, LPN, MA, Care Manager, Community Health Worker CHW, Front Desk and Medical Records. Ancillary support includes: Outreach and Enrollment, Dental, Vision, RD, Social Work, Maternal Infant Health Program, and interpreters.

Student Collaboration

- Each day at least one patient was identified by all the providers who would have a visit with all 3 students simultaneously.
- Students worked with triage RN to identify patients that they could make return phone calls to.
- Students worked with Diabetes Educator to facilitate monthly Diabetes Education Classes. These groups were very well attended and the students and patients both found them very beneficial.

Maintenance

- Representatives from GVSU met with Cherry Street staff members monthly at their staff meeting to gather their input and gauge how things were going.
- In addition, there was a monthly meeting with Cherry Street providers where input was gathered and needed adjustments to process were made.

Successes

- Cherry Street staff and providers loved having students on site and thoroughly enjoyed teaching.
- Implementation of the daily huddle improved communication, efficiency and staff satisfaction.
- Having the new perspective of PharmD on site was a huge staff, provider and patient satisfier.
- Opportunities for patient education increased.
- Patient clinical measures improved.
- Provider productivity continued to increase.

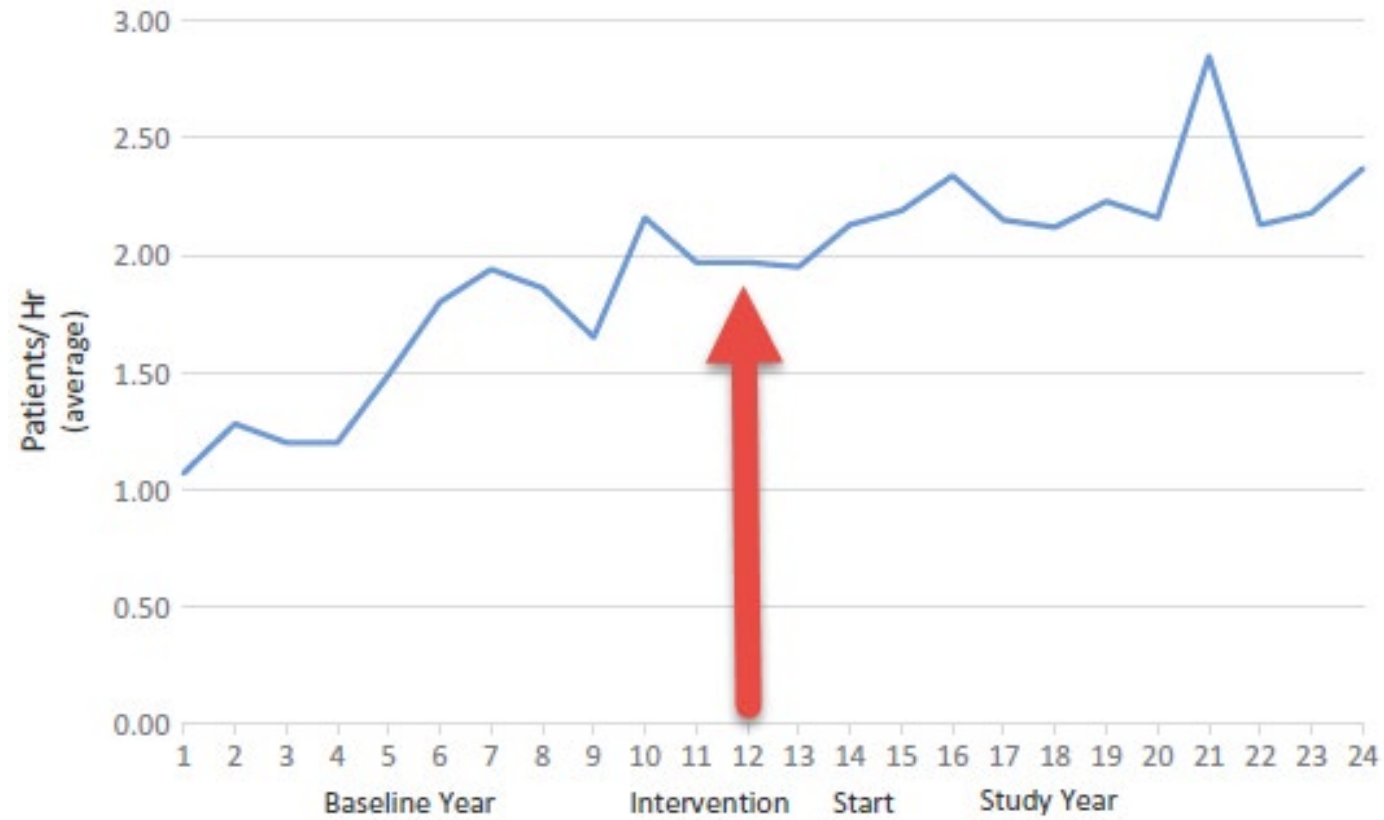
Clinical Indices

Outcome Indicator	N	Pre	Post	p-value
A1c	91	8.9	8.3	0.011
BMI	89	33.4	33.9	0.054
BP – Systolic	91	136.9	138.2	0.206
BP - Diastolic	91	81.3	82.4	0.086
Cholesterol	45	192.5	182.4	0.126
Glucose	89	199.0	172.8	< 0.01
HDL	45	45.6	47.6	0.063
LDL	44	107.2	101.2	0.315
Ratio (Total/HDL)	38	4.5	4.0	0.017
Triglyceride	45	196.8	165.5	0.006

Recommended Annual Exams

		Examinations Performed		
Exam Type	N	Pre	Post	p-value
Dental	242	26	34	0.312
Eye	242	45	37	0.396
Foot	242	51	164	< 0.001*

Physician Visit Productivity



Challenges

- The short duration of student rotations was a challenge. By the time the student was oriented to the practice site, trained on the EHR and becoming more independent, their rotation was ending.
- The provider's schedules with mostly 15 and 30 minute appointment times was also a challenge. When having one or more student push into a patient visit our cycle times increased by an average of 30 minutes per visit.
- Staff training was an additional challenge. Any time there was a training it required blocking the providers schedules and rescheduling patients.
- Transient patients - hard to keep 250 patients engaged over a year

Concluding Comments

- Connecting academics and practice resulted in a non-education mission clinic into a great learning environment
- Student learners contributed to improved clinical indices with little to no decrease in clinician productivity
- Cherry Health was able to expand service provision with student contributions
- Academic tools were incorporated into an established clinical practice with great effect
- We are just beginning to understand what it means to be interprofessionally practice ready

Questions & Feedback

