Participants will be able to:

- **Define** interprofessional team-based practice and education

- **Describe why** interprofessional team-based practice and education are especially critical to rural health and rural health care

- **Identify steps** a health care setting and community can take to implement interprofessional team-based care
210,000 – 440,000
A Team of Experts

is not

An Expert Team
“It is clear that HOW care is delivered is as important as WHAT care is delivered”. IOM 2001
Health Care Reform Necessitates Interprofessional Practice

- **Payment reform** – value based payment

- **Integrated care** – primary care, behavioral health, and/or oral health
Vision for 21st Century Health Care Professionals

IOM Core Competencies for Health Care Professionals:
• Provide patient-centered care
• Work in interdisciplinary teams
• Employ evidence-based practice
• Apply quality improvement
• Utilize informatics

Key Winnable Battles for Public Health

- Tobacco
- Healthcare-Associated Infections
- Teen Pregnancy
- Nutrition, Physical Activity, Obesity and Food Safety
- Motor Vehicle Injuries
- HIV
Maine PCMH / HH: Practice + Community Care Teams

- Environment
- Schools
- Transportation
- Workplace
- Housing
- Family
- High-need Individual
- PCMH Practice
- Care Mgt
- Med Mgt
- Coaching
- Outpatient Services
- Specialists
- Hospital Services
- Physical Therapy
- Food Systems
- Shopping
- Income
- Heat
- Faith
- Community
- Literacy
- Family
- School
Participants will be able to:

**Define interprofessional team-based practice and education**
“When multiple health workers from different professional backgrounds work together with patients, families, caregivers, and communities to deliver the highest quality of care”
(WHO, 2010)
4 Interprofessional Competencies

• Values/Ethics

• Roles/Responsibilities

• Communication

• Teamwork

2011 by associations of schools of nursing, MD, DO, pharmacy, dental, & public health (AACN, AAMC, AACOM, AACP, ADEA, and ASPPH)

http://www.aacn.nche.edu/education-resources/ipecrepor.pdf
Does It Work?

So far, yes.
7 studies indicate positive outcomes in diabetes care, medical errors, OR care, patient satisfaction, behavioral health care.


Implementing IP Practice tools such as TeamSTEPPS works to reduce errors and improve outcomes and care

http://www.teamsteppsportal.org/evidence-base
Participants will be able to:

**Describe why** interprofessional team-based practice and education are especially critical **to rural health and rural health care**
Rural Interprofessional Strategies

- Help recruit and retain health professionals
- Address lack of specialists
- Address health issues
Persistent Child Poverty and High Child Poverty
1980-2012

2012
Rankings of Health Outcomes by County

http://www.countyhealthrankings.org/
Figure 1.9 Diabetes Prevalence by County of Residence, Maine Adults, 2008-2010

Prevalence Rate
percentage of adults

- 7.0 - 7.4
- 7.5 - 8.1
- 8.2 - 9.3
- 9.4 - 10.7

Maine Overall: 8.4

Data Source: Behavioral Risk Factor Surveillance System.
All %s are weighted to be more representative of the general adult population of Maine and to adjust for non-response.
Diabetes does not include pregnancy-related diabetes.
Map Created by David Pied and Nisha Kini on 04/18/2012
Figure 3.7 Diabetes-Related Hospitalization Rates, by County of Residence, Maine 2007-2009

Age-adjusted Hospitalization Rate* per 10,000 population per year

- 123.6 - 135.4
- 135.5 - 161.8
- 161.9 - 183.0
- 183.1 - 199.8

Maine Overall: 157.6

Data Source: Maine Inpatient Database, Maine Health Data Organization.
Diabetes-Related Hospitalizations: ICD-9-CM 250; any listed diagnosis.
*Age-adjusted to the year 2000 standard U.S. population

Map Created by David Pied and Nisha Kini on 04/18/2012
Figure 3.13 Diabetes-Related Non-traumatic Lower Extremity Amputation Hospitalization Rates, by County of Residence, Maine 2007-2009

Age-adjusted Hospitalization Rate*
per 10,000 population per year

- 1.4
- 1.5 - 2.0
- 2.1 - 2.4
- 2.5 - 2.8

Maine Overall: 2.0

Data Source: Maine Inpatient Database, Maine Health Data Organization.
Non-traumatic Lower Extremity Amputation: Hospitalizations with diabetes (ICD-9-CM code 250) as any listed diagnosis and amputation of the lower limb (ICD-9-CM procedure code 84.1) as any listed procedure and not having ICD-9-CM codes 895–897 (traumatic amputation)

*Age-adjusted to the year 2000 standard U.S. population.

Map Created by David Pied and Nisha Kini on 04/18/2012

November, 2012

Diabetes Prevention and Control Program
Maine Center for Disease Control and Prevention
Figure 4.8 Diabetes-Related Death Rates, by County of Residence, Maine 2005-2009

Age-adjusted Mortality Rate*
per 100,000 population per year

- 37.6 - 54.4
- 54.5 - 75.1
- 75.2 - 91.0
- 91.1 - 116.9

Maine Overall: 69.5

Data Source: Maine Mortality Data; Data Research and Vital Statistics, Maine CDC.
Diabetes-Related Deaths: ICD-10 codes E10–E14, underlying or contributing cause of death.
*Age-adjusted to the year 2000 standard U.S. population

Map Created by David Pied and Nisha Kini on 04/18/2012
Participants will be able to:

**Identify steps** a health care setting and community can take to implement interprofessional team-based care
What can you do to build tools for interprofessional practice?

• Values/Ethics

• Roles/Responsibilities

• Communication

• Teamwork
TeamSTEPPS

- U.S. DHHS AHRQ curriculum for health professionals that teach team skills
- Curriculum and materials are free or low cost [http://teamstepps.ahrq.gov/](http://teamstepps.ahrq.gov/)
- St. Louis University (SLU) Module (I particularly recommend) [http://www.slu.edu/medicine/family-and-community-medicine/ahec-program/team-stepps-modules](http://www.slu.edu/medicine/family-and-community-medicine/ahec-program/team-stepps-modules)
Leadership Strategies

• Briefs – planning
• Huddles – problem solving
• Debriefs – process improvement

*Leaders are responsible to assemble the team and facilitate team events*

*But remember…*

*Anyone can request a brief, huddle, or debrief*
Planning

- Form the team
- Designate team roles and responsibilities
- Establish climate and goals
- Engage team in short- and long-term planning
# Briefing Checklist

<table>
<thead>
<tr>
<th>TOPIC</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Who is on your team today?</td>
<td>✔</td>
</tr>
<tr>
<td>All members understand and agree upon goals?</td>
<td>✔</td>
</tr>
<tr>
<td>Roles and responsibilities understood?</td>
<td>✔</td>
</tr>
<tr>
<td>Staff availability?</td>
<td>✔</td>
</tr>
<tr>
<td>Workload?</td>
<td>✔</td>
</tr>
<tr>
<td>Available resources?</td>
<td>✔</td>
</tr>
<tr>
<td>Review of the day’s patients?</td>
<td>✔</td>
</tr>
</tbody>
</table>
Huddle

Problem Solving

– Hold ad hoc, “touch-base” meetings to regain situation awareness
– Discuss critical issues and emerging events
– Anticipate outcomes and likely contingencies
– Assign resources
– Express concerns
Debrief

Process Improvement

• Brief, informal information exchange and feedback sessions
• Occur after an event or shift
• Designed to improve teamwork skills
• Designed to improve outcomes
  – An accurate reconstruction of key events
  – Analysis of what worked or did not work and why
  – What should be done differently next time
• Recognize good team contributions or catches
Barriers to Team Effectiveness

**BARRIERS**
- Inconsistency in Team Membership
- Lack of Time
- Lack of Information Sharing
- Hierarchy
- Defensiveness
- Conventional Thinking
- Complacency
- Varying Communication Styles
- Conflict
- Lack of Coordination and Followup With Co-Workers
- Distractions
- Fatigue
- Workload
- Misinterpretation of Cues
- Lack of Role Clarity

**TOOLS and STRATEGIES**
- Brief
- Huddle
- Debrief
- STEP
- Cross-Monitoring Feedback
- Advocacy and Assertion
- Two-Challenge Rule
- CUS
- DESC Script
- Collaboration
- SBAR
- Check-Back
- Handoff

**OUTCOMES**
- Shared Mental Model
- Adaptability
- Team Orientation
- Mutual Trust
- Team Performance
- Patient Safety!!
UNE Strategies

- Pipeline & educational activities for youth, health professions students, and rural providers

- Centers in Presque Isle (NMCC), Bangor (PCHC), Farmington (FCHN), and UNE

- Focus on interprofessionalism
UNE’s Rural Approach

- Identify interested youth/students early
- Frequent exposure early
- Interprofessional
Rural Interprofessional Immersion
Osteopathic Medicine

• Students train throughout rural Maine.

Results:
• 538 UNE graduates practice in Maine
• 1 in 5 Maine primary care physicians are UNE grads
• 1 in 4 Maine primary care physicians in rural areas are UNE grads
Care for the Underserved Pathway Scholars
Dental Medicine

- 64 students per class (254 enrollment)
- 1/3 from Maine
- All spent 24 weeks in their 4th year in rural northern New England
- Inaugural class graduates 2017
Pharmacy

• 100 per class

• 27% from Maine

• Students do community clinical trainings from Fort Kent to Kittery
Physician Assistant

- Interprofessional geriatric education focus

- 50 per class (2-year program)

- 52% practice in rural areas
Social Work

- Online, on-campus, and hybrid
- Students from across Maine and the country, with large proportion in rural areas
- Specialized tracks for Maine-based students
Lessons Learned

• Everyone has a role in building a pipeline for rural health care

• Identify interested students early

• Frequent exposure

• Interprofessional approaches help recruit and retain
Resources

UNE Center for Excellence in Health Innovation
http://www.une.edu/academics/centers-institutes/center-excellence-health-innovation

Core Competencies for IP Practice
http://www.aacn.nche.edu/education-resources/ipecreport.pdf

AHRQ TeamSTEPPS Primary Care Module
http://www.ahrq.gov/professionals/education/curriculum-tools/teamstepps/primarycare/

Video on Crew Resource Management and Healthcare Safety
https://www.youtube.com/watch?v=L_oXvXtQ1BA

University of Toronto Guide to Interprofessional Clinical Education
THANK YOU!