

Using a Delphi Survey to Establish Learning Objectives in Chronic Disease Management for Medical Students

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Funded by the AMA's Improving Health Outcomes division

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Florida International University Herbert Wertheim College of Medicine

Harvard Medical School

Indiana University School of Medicine

Mayo Clinic School of Medicine

Michigan State University College of Osteopathic Medicine

Morehouse School of Medicine

New York University School of Medicine

Ohio University Heritage College of Osteopathic Medicine

Oregon Health & Science University School of Medicine

Pennsylvania State University College of Medicine

Rutgers Robert Wood Johnson Medical School

Sidney Kimmel Medical College at Thomas Jefferson University

University of California, Davis, School of Medicine

University of California, San Francisco, School of Medicine

The University of Chicago Pritzker School of Medicine

University of Connecticut School of Medicine

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University of Texas Rio Grande Valley School of Medicine

University of Utah School of Medicine

University of Washington School of Medicine

Vanderbilt University School of Medicine

The Warren Alpert Medical School of Brown University

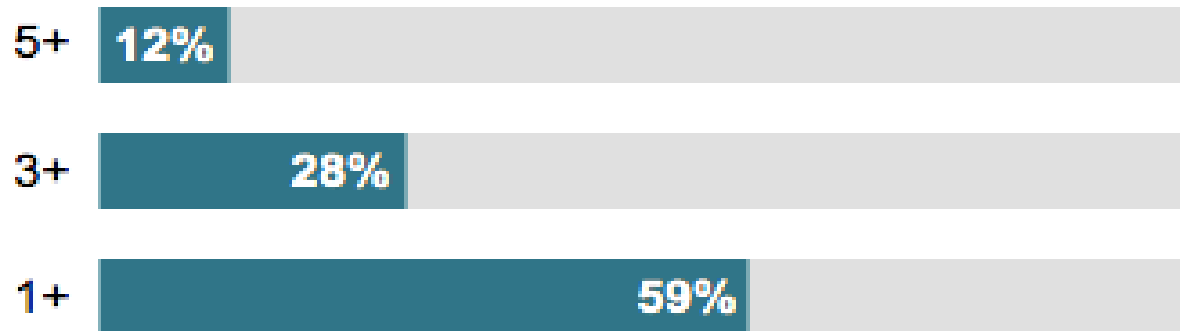
Disclosures

Michael Dekhtyar

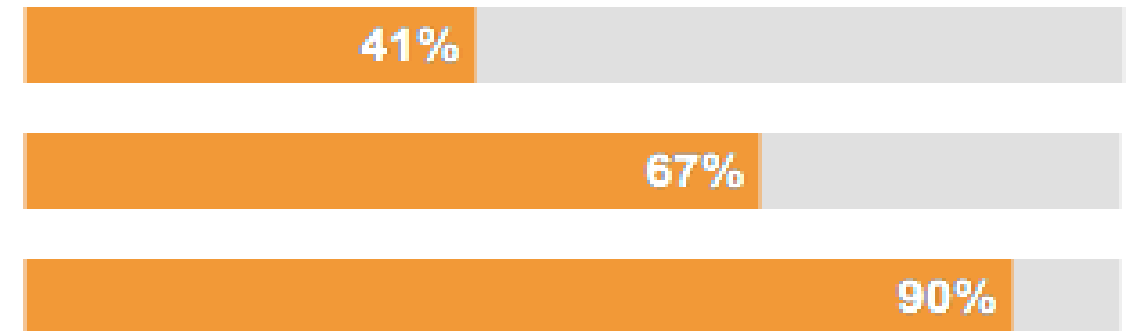
- Salaried employee of the AMA

Chronic conditions affect millions of Americans

Percentage of U.S. Adults, by Number of Chronic Conditions



Percentage of Health Care Spending



Rand Review, July 2017

Training Health Care Professionals for 21st-Century Practice: A Systematic Review of Educational Interventions on Chronic Care

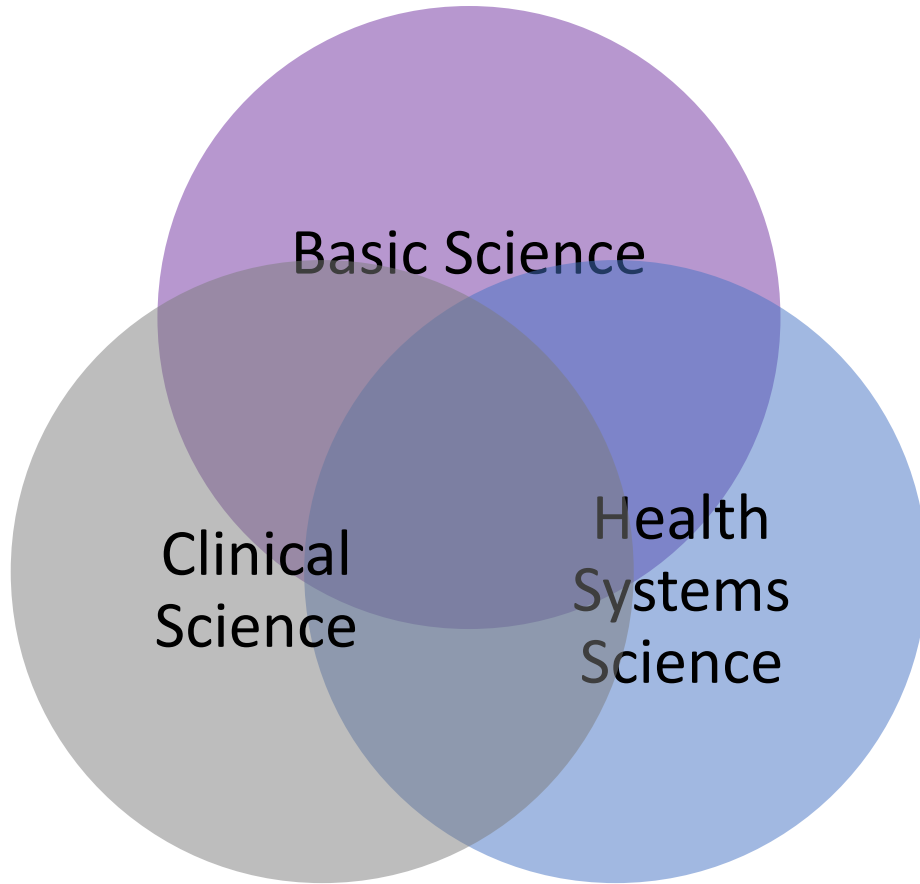
Successful interventions

- Included multiple elements of chronic care
- Assessed higher-level learner outcomes
- Changed health care delivery systems

Future activities

- Most studies lacked a theoretical framework
- Multi-institution studies
- Link to patient outcomes

Health Systems Science



Health Systems Science – “the principles, methods, and practice of improving quality, outcomes, and costs of health care delivery for patients and populations within systems of medical care”

Study Goals

To develop a set of learning objectives in chronic disease prevention and management (CDPM) for undergraduate medical education that:

1. Goes beyond the teaching of the pathophysiology and treatment of specific chronic diseases,
2. Provides a health system science framework,
3. Involves a systematic consensus process among CDPM experts and curriculum leaders.

Methods



Methods: A Consortium as Sample

- Venue for communication, benchmarking, and collaboration
- Annual and thematic
 - Chronic disease prevention, leadership, coaching
- Interest groups
 - Health systems science
 - Social determinants of health
 - Master adaptive learner
 - **Chronic disease prevention and management (CDPM)**
 - Leadership
 - Student wellness

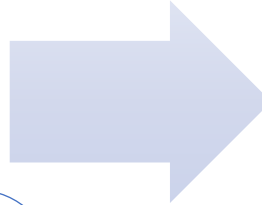
Consortium Members

A.T. STILL UNIVERSITY
SCHOOL OF OSTEOPATHIC MEDICINE IN ARIZONA | ATSU



Convening an Expert Panel

Invitational CDPM meeting in June 2016



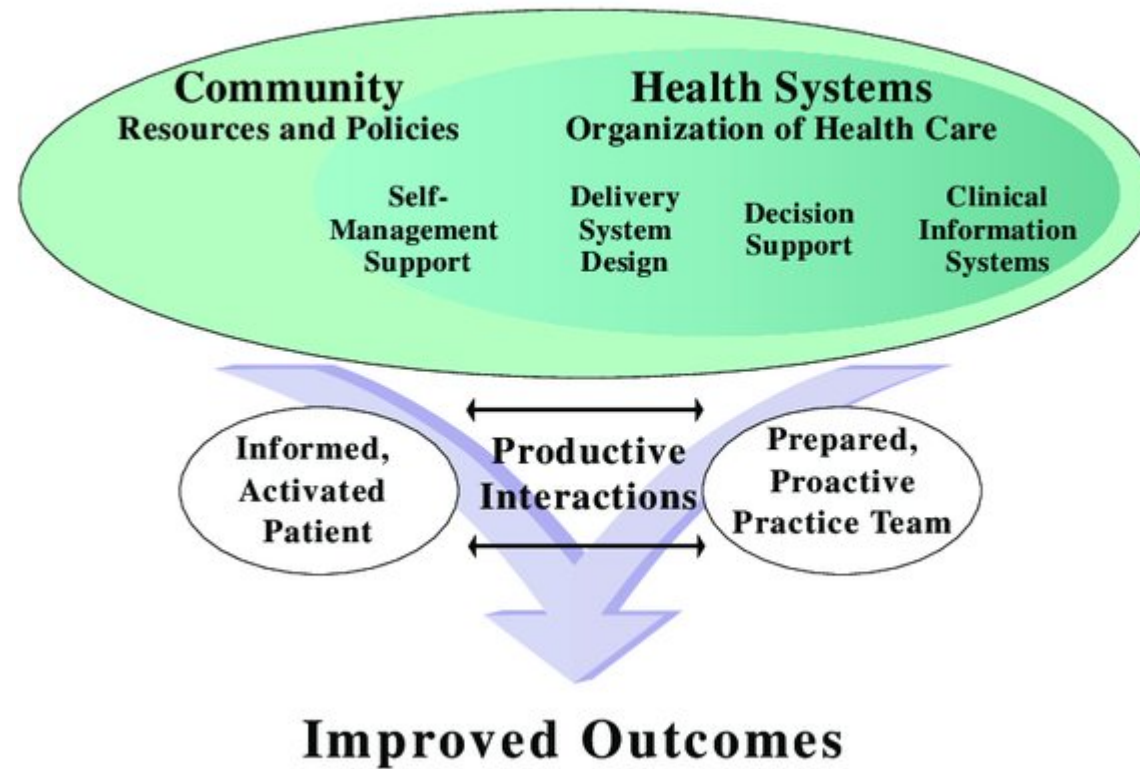
Meeting Outcomes

- To consider the chronic disease burden in the US and implications for medical student education
- To share best practices in teaching CDPM,
- To identify current curricular gaps, barriers, and needs
- Explore achievable goals and action steps

- Formation of a CDPM interest group with regular calls
- Priority need is for learning objectives for CDPM
- Choice of Wagner's Chronic Care model to guide learning objective identification

Wagner's Chronic Care Model

The Chronic Care Model



Developed by The MacColl Institute
© ACP-ASIM Journals and Books

Surveying the literature

- Conducting a review of the literature on needed CDPM knowledge, skills, or attitudes
 - Inclusion: identification of competencies or learning objectives for CDPM in students, residents, or practitioners
 - Exclusion: disease-specific rather than systems oriented
- Mapping results to Wagner's Chronic Care model
 - 45 articles
 - 451 competency statements

Conducting the Delphi Process

Round 1:

- Participants: 7 interest group members with expertise in CDPM and/or curriculum development representing 6 medical schools and 3 AMA staff
- Format: in-person meeting, Dec 2016
- Task: Review 451 objectives from the lit review to select most relevant for medical students related to 6 WCC competencies
- Outcome: 83 initial objectives reduced to 39 in subsequent phone discussion.

Round 2

- Participants: 32 CDPM experts and curriculum leaders
- Format: Online survey using snowball sampling of colleagues with CDPM expertise or curriculum leadership roles, spring 2017
- Task: Select 20 from the list of 39 that would help guide development of a CDPM curriculum for medical students
- Outcome: 21 objectives

Round 3:

- Participants: 35 Interest group members representing 14 schools
- Format: in-person thematic meeting, May 2017, with discussion, voting, reporting, and discussion until consensus
- Task: Consider relevance, importance, and feasibility, appropriate for medical student level, key objectives not addressed in other curricular areas
- Outcome: 11 final objectives

Results:

Patient self care and management

- Elicit patient-identified barriers
- Use motivational interviewing to activate patient engagement

Decision support

- Use an expanded social history
- Identify chronic care practice guidelines
- Apply data gathered for shared decision making with the patient

Results:

Clinical Information Systems

- Use EHR to appropriately document chronic care
- Use the EHR for population level actions

Community resources and engagement

- Identify community resources for chronic care support

Delivery systems and teams

- Describe the function of interprofessional teams in CDPM

Health system practice and improvement

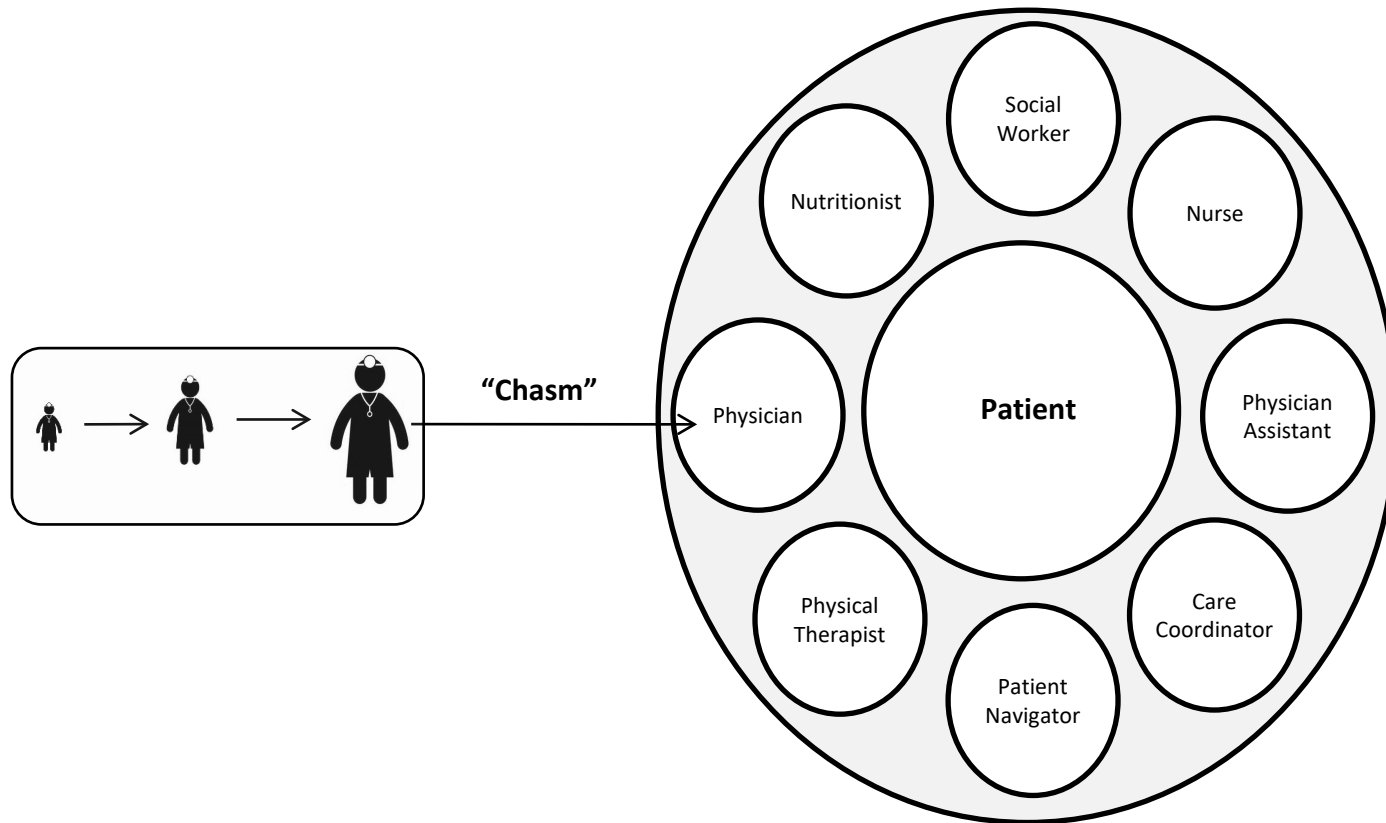
- Identify the role of financial systems in influencing access
- Understand policies that affect chronic disease care

Discussion: Shift from acute to chronic conditions

The 11 objectives represent the curriculum needed to prepare students to care for the increased incidence and prevalence of chronic diseases.

- Current curriculum may focus more on acute than chronic disease in both the classroom and clinical settings.
- Current curriculum may focus on understanding individual chronic diseases with little if any attention to the multi-faceted system needed to help patients prevent and manage complex chronic conditions.

Discussion: Student engagement



“Value-added Roles”

Patient Navigators

Care Transition Facilitators

Safety and Patient-Care Analysts

Quality Improvement Team Extenders

Population Health Managers

Patient-Care Technicians

Medical Scribes

Limitations and Next Steps

- Delphi included chronic disease faculty members and medical educators from only Consortium member schools.
- Important chronic disease topics related to physician wellness were not included but have the potential to worsen well-being among providers.
- A national survey of medical school curriculum deans could be conducted to determine the balance of acute and chronic care and the individual vs system approach