Addressing Health Disparities through Interprofessional Education and Community-based Participatory Research

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  - White Crane Wellness Center (WCWC, non-profit)
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- No financial conflict of interest

Learning Objectives

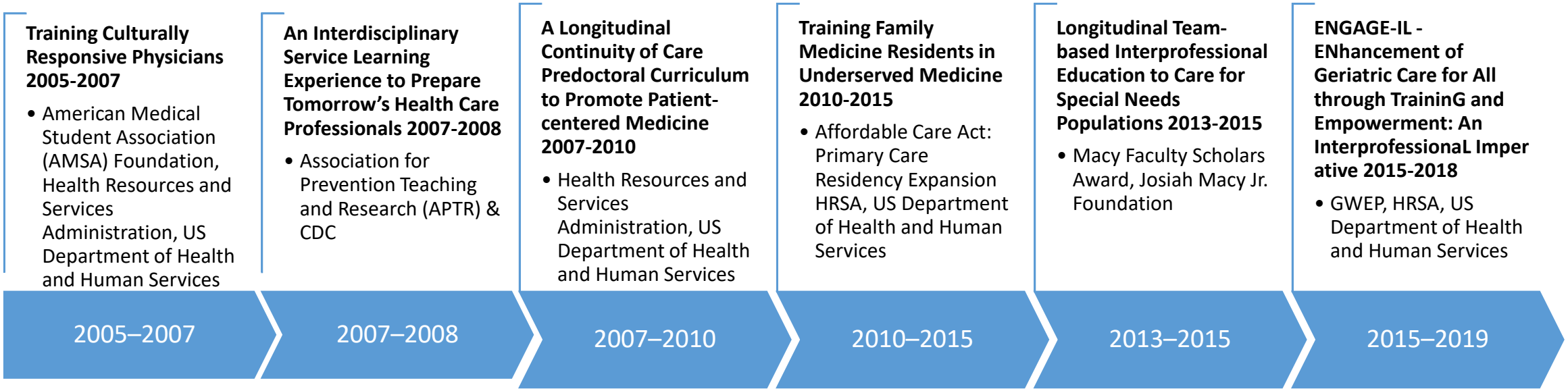
1. Discuss key principles of Community-Based Participatory Research (CBPR) and core competency domains for Interprofessional Education (IPE) and Collaboration

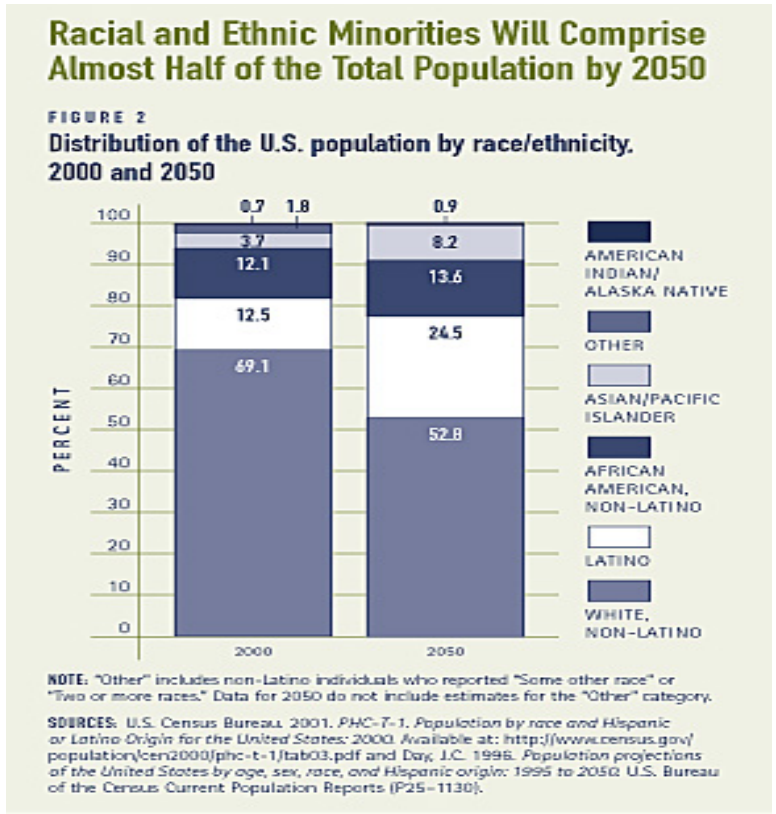
2. Analyze benefits of utilizing of the CBPR approach in IPE and collaborative practice to address health disparities

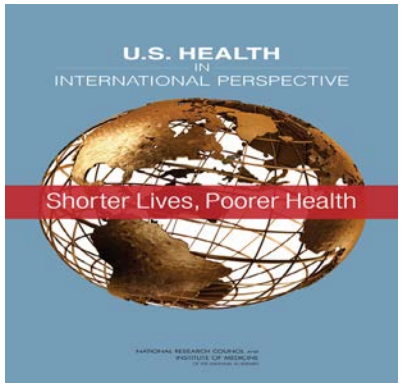
3. Discuss lessons learned from developing, implementing and evaluating the “Interprofessional Approaches to Health Disparities” (IAHD) course at UIC

4. Develop action plans to apply similar learning experiences at participant’s institutions

Our Journey in Program Development



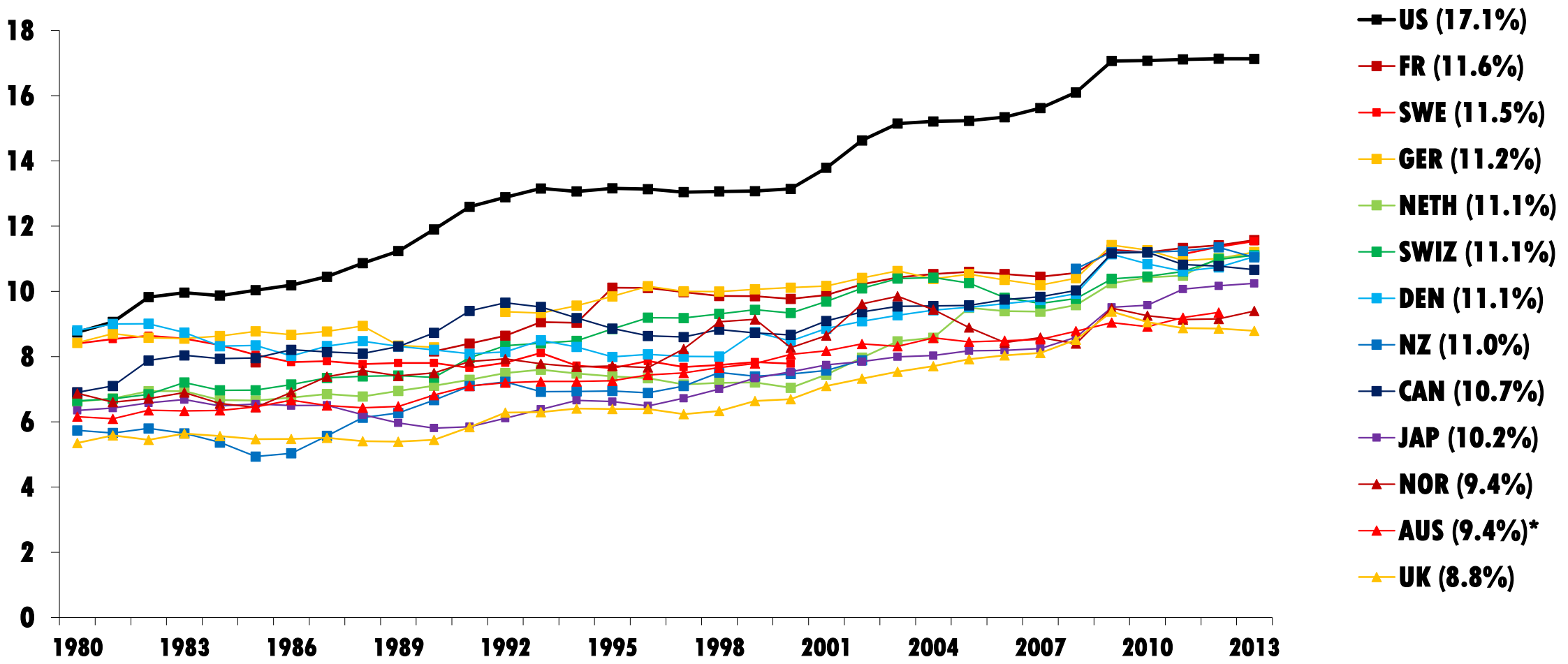




Background & Rationale

International Comparison of Health Care Spending as % of GDP

1980–2013



* 2012.

Notes: GDP refers to gross domestic product. Dutch and Swiss data are for current spending only, and exclude spending on capital formation of health care providers.

Source: OECD Health Data 2015.

The COMMONWEALTH FUND

Mirror, Mirror on the Wall
How the U.S. Health Care System Compares Internationally

3 (Paris: OECD, Nov. 2013).

Drivers for Change

IOM aims...care should be: safe, effective, patient-centered, timely, efficient and equitable

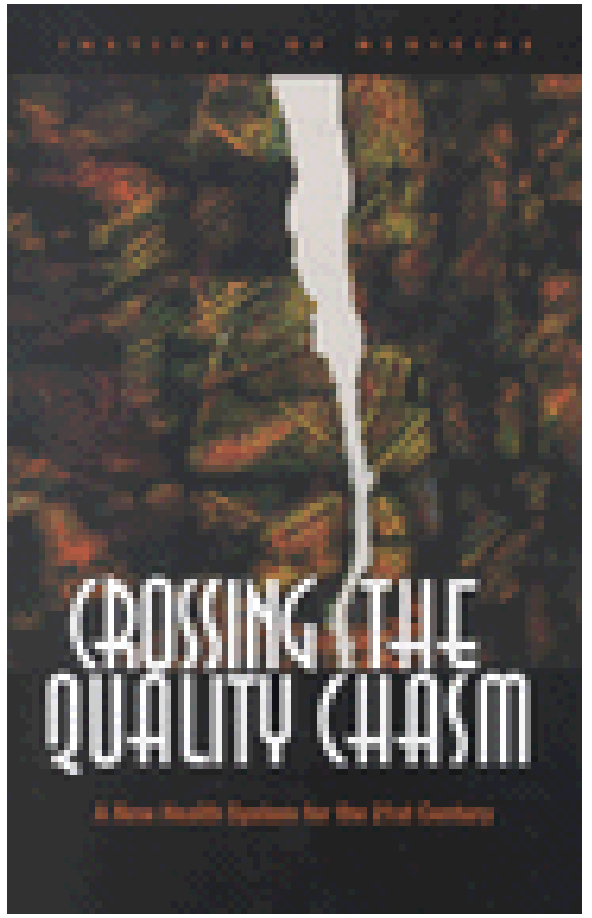
Recognition of social determinants of health

Persisting health disparities

Numerous calls to reform the health care system and health professions education

Emphasis on the need for integrating medical education with public health training

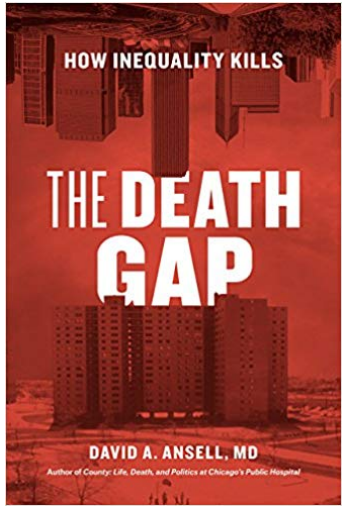
Evolving accreditation requirements for HPE

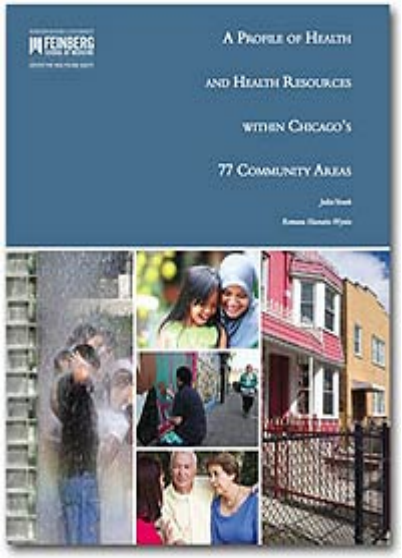


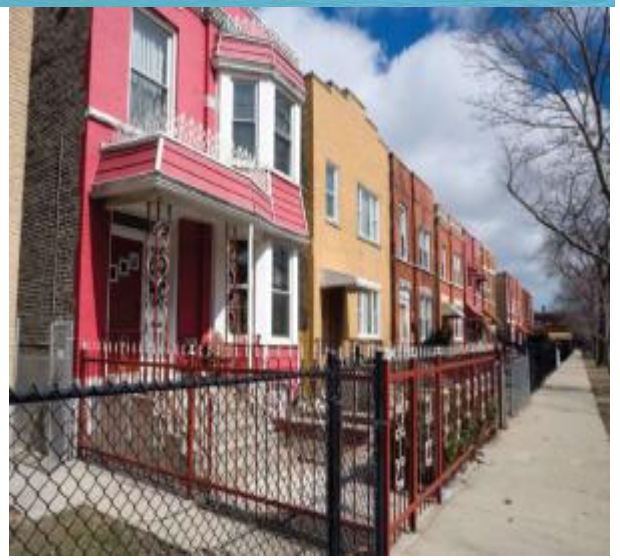
Health Disparities in Chicago

This map shows the distribution of Chicago's 36 hospitals by health system planning region. Hospitals were categorized as general acute care, long-term care, psychiatric, children's specialty, rehabilitation, and retrieved.

The spatial distribution of hospitals is unevenly distributed across the city. The greatest concentration of general acute care facilities are found in the north, west and south regions of the city. In contrast, the northwest, southwest, and far south region each had fewer than three general acute care hospitals.







Differences in Patient-Reported Experiences of Care by Race and Acculturation Status

Memoona Hasnain · Alan Schwartz · Jorge Girotti · Angela Bixby · Luis Rivera · and the UIC Experiences of Care Project Group

Abstract Patient-reported experiences of care are an important focus in health disparities research. This study explored the association of patient-reported experiences of care with race and acculturation status in a primary care setting. 881 adult patients (African-American 34 %; Hispanic—classified as unacculturated or biculturated—31 %; Caucasian 33 %; missing race 2 %), in outpatient Family Medicine clinics, completed a written survey in Spanish or English. Consumer Assessment of Healthcare Providers and Systems (CAHPS) Clinician & Group (CAG) Survey Adult Primary Care instrument was used for experiences of care and Short Form-12 survey for health status. Controlling for other variables, race and acculturation were significantly associated with several CAG subscales. Hispanic patients gave significantly higher ratings for care experiences and expressed greater interest in shared decision making. Selected patient-reported measures of care are associated with patients' race and acculturation status (for Hispanic patients). We discuss implications for both provision and measurement of quality

Keywords Patient-centered care · Acculturation · Cultural competence · Quality care

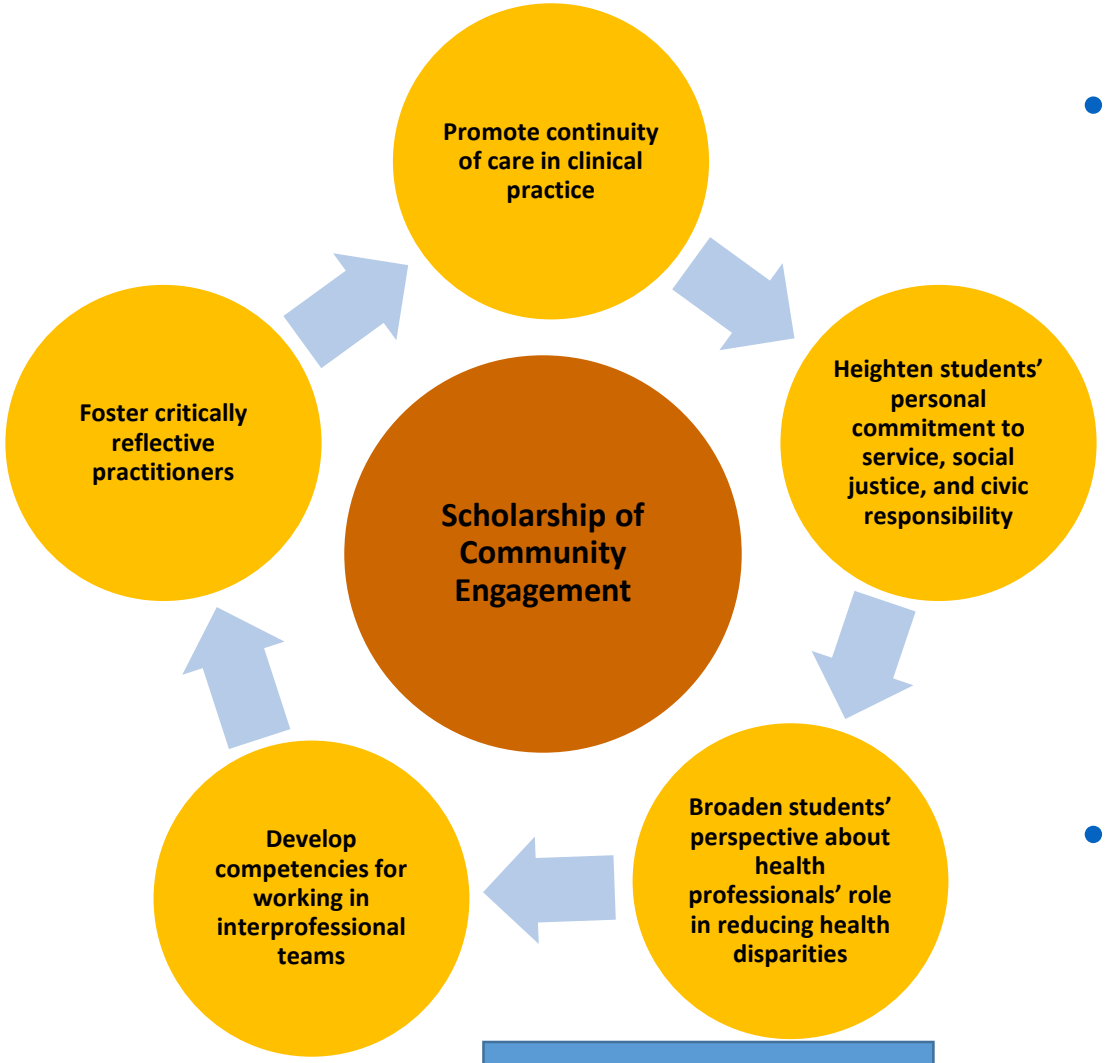
Introduction

Asking patients to rate the quality of their health care experiences is increasingly gaining emphasis in the ongoing evaluation of the provision of health care. Given persistent racial/ethnic disparities in health status in the United States, access to and utilization of health care, as well as the quality of care [1], it is crucial to explore differences in patients' perception of the quality of care across ethnically diverse populations. These questions are particularly important when studies indicate that some non-white patients report better care experiences in situations where they are known to receive lower-quality care, while others do not [2–5]. One recent study [6] suggests both an important role for differential item use by respondents of different ethnicities and approaches to survey validation to

Changing Needs for Health Professions Training

Revisiting the Medical School Mission at a Time of Expansion **Josiah Macy Jr. Foundation – 2008**	*Educating Physicians: A Call for Reform of Medical School and Residency* **Carnegie Foundation - 2010**
Need for… ■ Acceleration in the pace of change in order to prepare future physicians to meet the public's increasingly demanding needs and expectations; ■ Medical educators to ensure that physicians have more backgrounds in population health and the role social factors play in effecting health change; and ■ More frequent use of community-based settings as learning environments and less frequent use of hospital settings.	**Need for…** ■ Standardization of learning outcomes and individualization of the learning process ■ Integration of formal knowledge and clinical experience ■ Development of habits of inquiry and innovation ■ Focus on professional identity formation

Figure 1: New Beginnings in Education, Service & Research Hasnain, 2005 – Service Learning Conceptual Framework



Hasnain, 2005

- Service Learning...a teaching and learning strategy that integrates meaningful community service with instruction and reflection to enrich the learning experience, teach civic responsibility, and strengthen communities.

- Initial SL focus expanded to Program in Patient-centered Medicine

Patient-centered Medicine Scholars Program

M1

Foundations of PCC

M2

[1]PCC for Vulnerable Populations

M3

[2]Patient's Role in PCC

M4

[3]IAHD

Continuity of Care

[1] Domestic Violence, Geriatrics, HIV/AIDS, Homelessness, Immigrant & Refugee Health

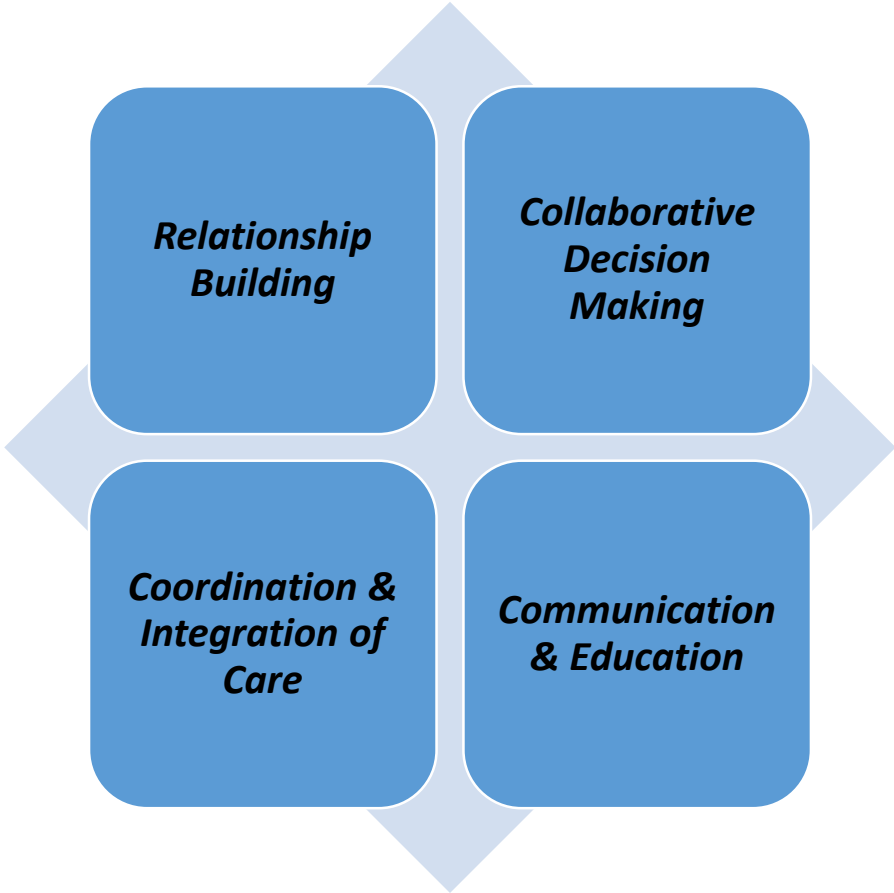
[2]Chronic Disease Self-management, Home visits, Group Visits, Special Topics in PCM

[3] Interprofessional Approaches to Health Disparities

Patient-centered Care

…health care that establishes a partnership among practitioners, patients and their families (when appropriate) to ensure that decisions respect patients' wants, needs and preferences…IOM

Model for Patient-centered Delivery of Care



UIC

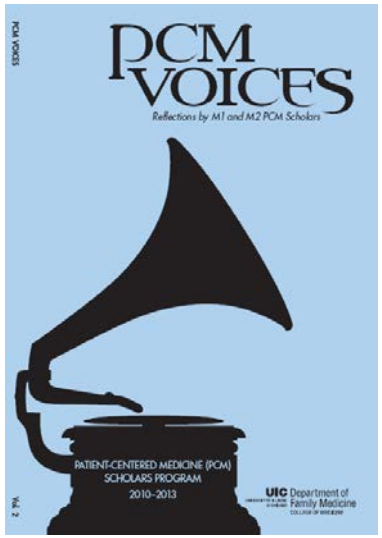
Theoretical Foundation

Education in Action Philosophy

Drawing from the wisdom of…

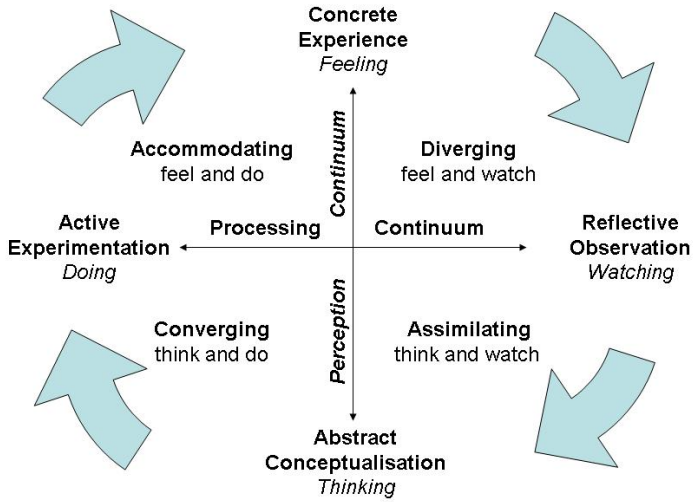
John Dewey, Earnest Boyer, David Kolb and other educators and philosophers

- Active-experiential learning
- Reflection
- Application
- Integration

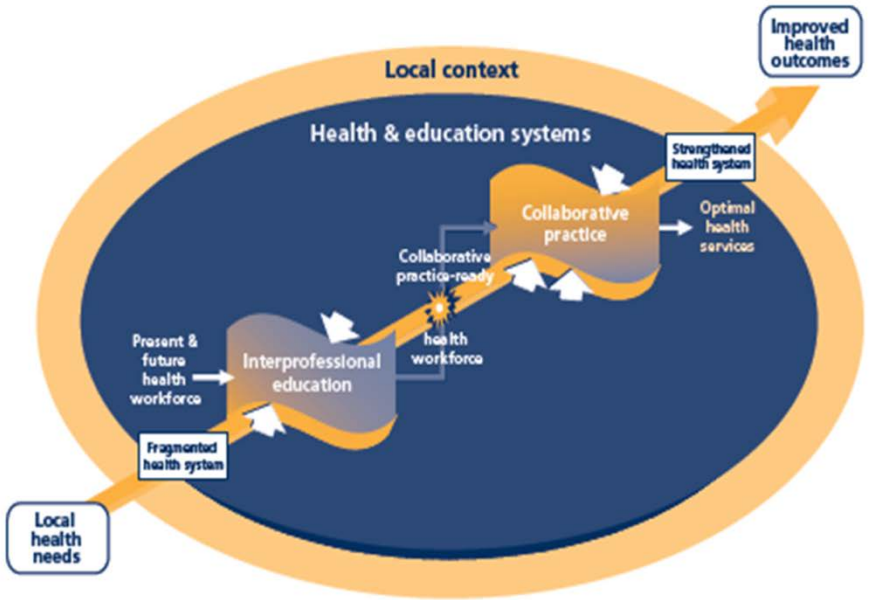


Adult Learning Principles - Knowles

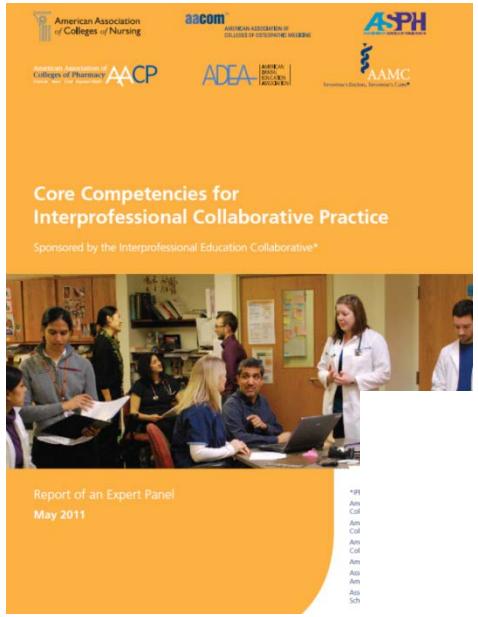
Kolb's Model

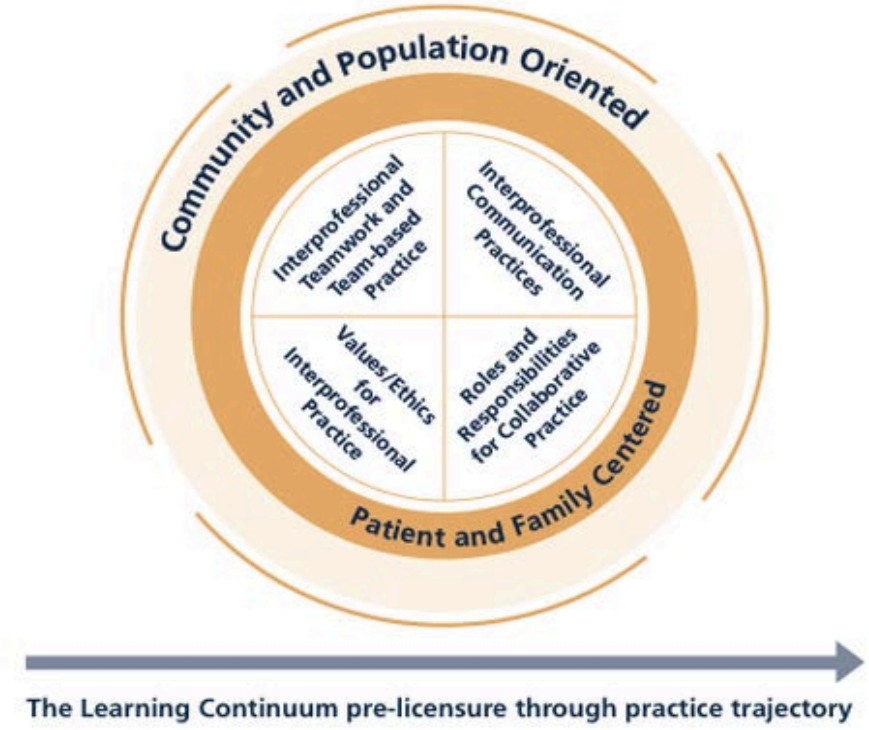


Focus on IPE & CP



Framework for Interprofessional Education & Collaborative Practice – WHO 2010





Interprofessional Education Collaborative 2011

Recommendations

"All health professionals should be educated to deliver patient-centered care as members of an interprofessional team, emphasizing evidence-based practice, quality improvement approaches and informatics." *IOM*

"If we acknowledge the growing body of evidence that healthcare delivered by well-functioning teams produces better results, there is a serious disconnect with the educational system that is still structured in silos" *George Thibault, MD*

The core curriculum of a medical education program must prepare medical students to function collaboratively on healthcare teams that include other health professionals. *LCME: Standard 19*

Although IPE can be viewed as curriculum (what material is learned) or an instructional method (how material is learned), **its real promise lies in its role as a lever for promoting change.**
Dow & Thibault, NEJM 2017

Pilot Work

Training Future Health Providers to Care for the Underserved: A Pilot Interprofessional Experience

Memoona Hasnain[1], Michael J. Koronkowski[2], Diane M. Kondratowicz[1], Kristen L. Goliak[2]

[1] *Department of Family Medicine, College of Medicine, University of Illinois at Chicago, USA*
[2] *Department of Pharmacy Practice, College of Pharmacy, University of Illinois at Chicago, USA*

ABSTRACT

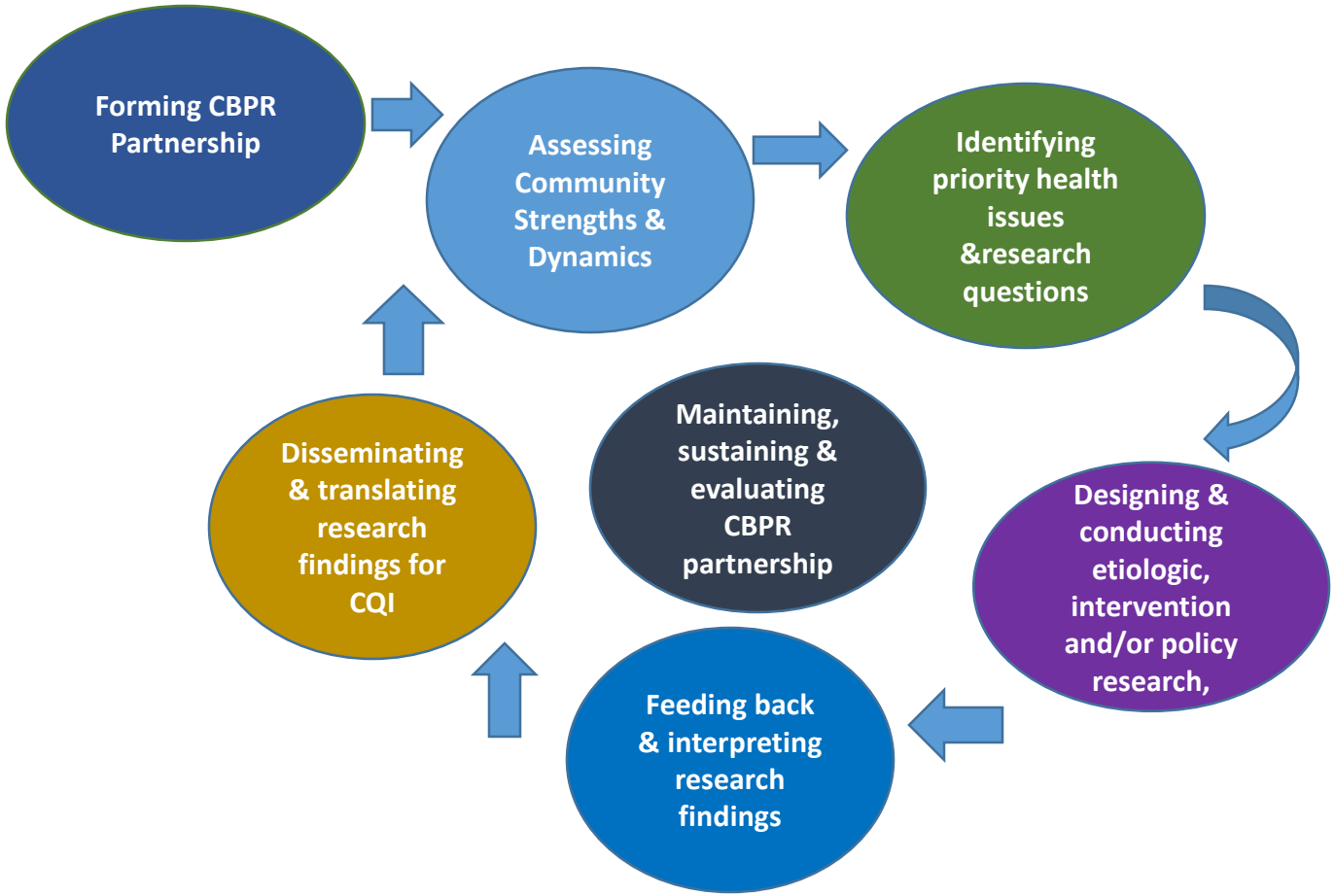
Introduction: Interprofessional teamwork is essential for effective delivery of health care to all patients, particularly the vulnerable and underserved. This brief communication describes a pilot interprofessional learning experience designed to introduce medicine and pharmacy students to critical health issues affecting at-risk, vulnerable patients and helping students learn the value of functioning effectively in interprofessional teams. **Methods:** With reflective practice as an overarching principle, readings, writing assignments, a community-based immersion experience, discussion seminars, and presentations were organized to cultivate students' insights into key issues impacting the health and well-being of vulnerable patients. A written program evaluation form was used to gather students' feedback about this learning experience. **Results:** Participating students evaluated this learning experience positively. Both quantitative and qualitative input indicated the usefulness of this learning experience in stimulating learners' thinking and helping them learn to work collaboratively with peers from another discipline to understand and address health issues for at-risk, vulnerable patients within their community. **Discussion:** This pilot educational activity helped medicine and pharmacy students learn the value of functioning effectively in interprofessional teams. Given the importance of interprofessional teamwork and the increasing need to respond to the health needs of underserved populations, integrating interprofessional learning experiences in health professions training is highly relevant, feasible, and critically needed.

Keywords: Interprofessional care, interprofessional education, interprofessional learning, underserved populations

Community-based Participatory Research CBPR

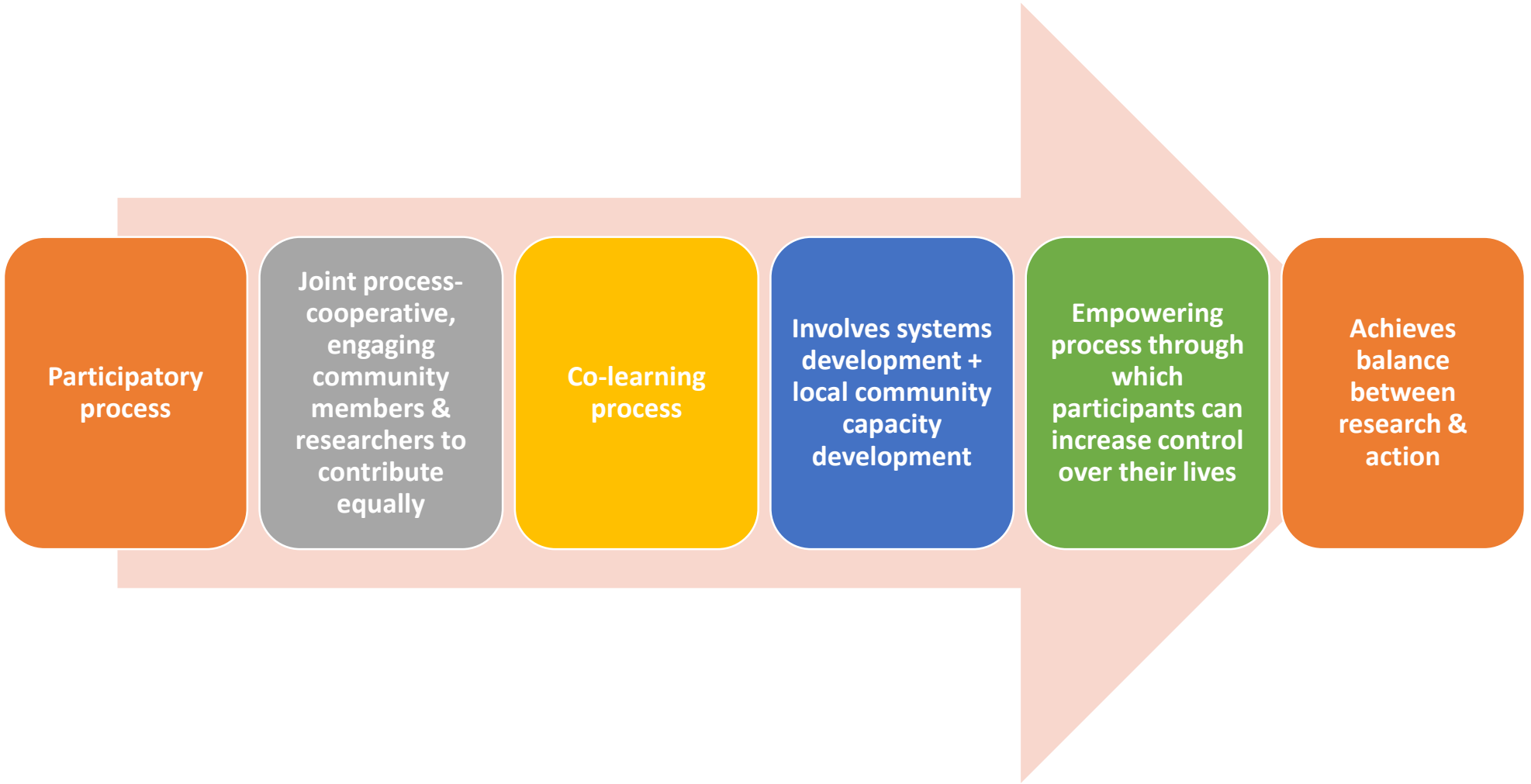
"A collaborative approach to research that equitably involves all partners in the research process and recognizes the unique strengths that each brings. CBPR begins with a research topic of importance to the community and has the aim of combining knowledge with action and achieving social change to improve health outcomes and eliminate health disparities."

W.K. Kellogg Foundation Community Scholars Program, 2001

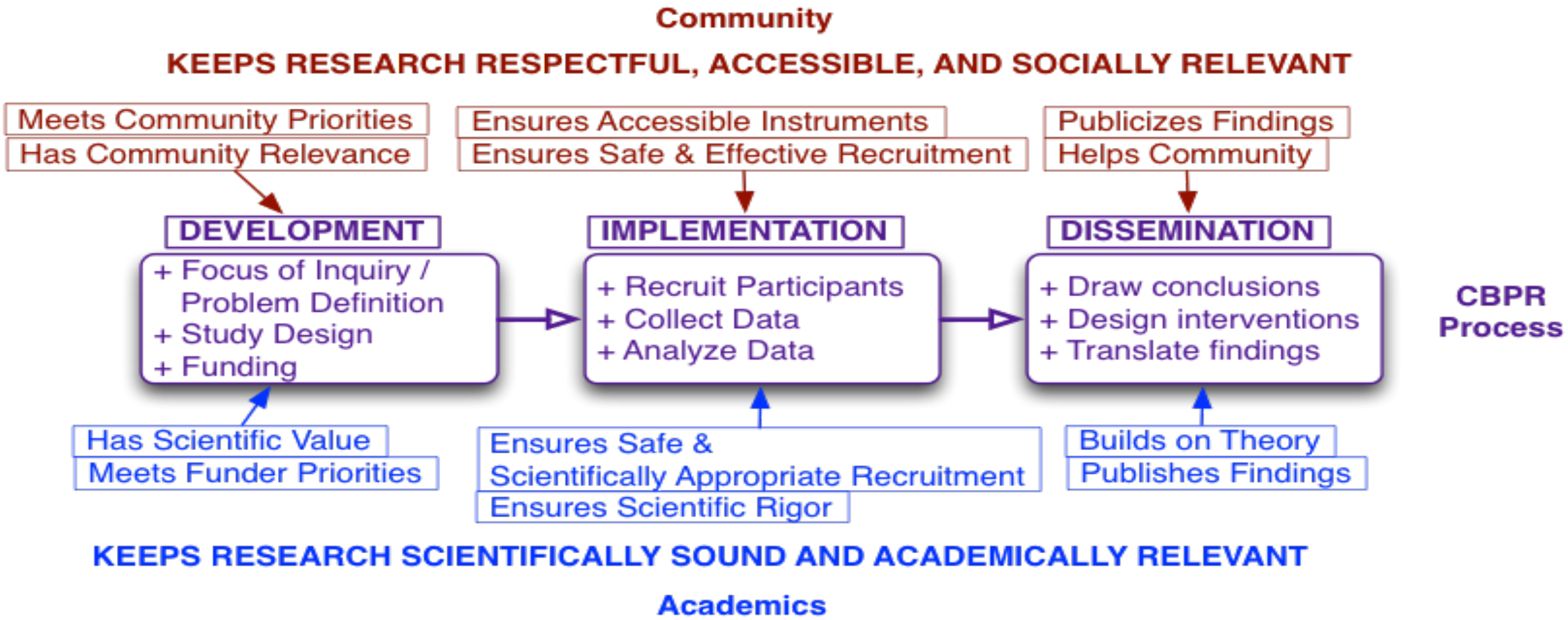


CBPR Principles

CBPR for Health, Minkler & Wallerstein Editors – Page 9



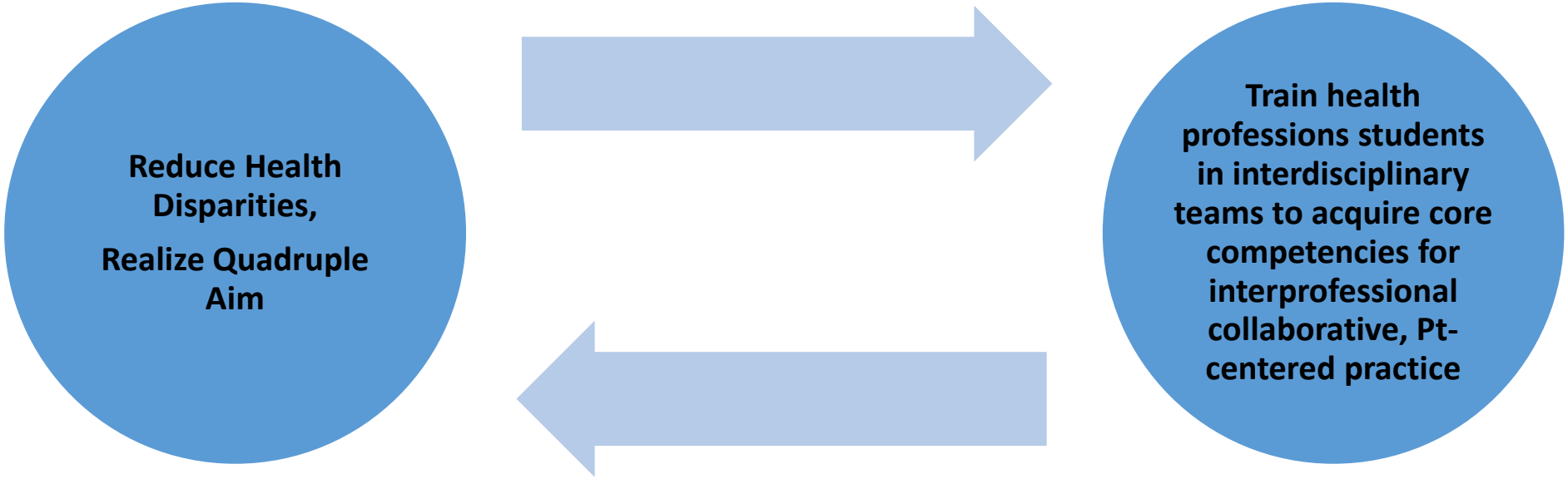
Community-Based Participatory Research



Isreal, Barbara A. "Community-Based Participatory Research: Principles, Rationale and Policy Recommendations." Successful Models of Community-Based Participatory Research, pp. 16-22, March 2000, Washington, DC.

Interprofessional Approaches to Health Disparities (IAHD)

Goal: To equip learners with essential skills to improve health care for underserved populations and transform health disparities through interprofessional education, research and collaborative practice.



Educational Methods

- Orientation, student, faculty and staff development
- Community-based immersion activities
- CBPR & QI Research
- Monthly seminars & online tutorials
- Team-based learning
- Reflections
- Final showcase presentations

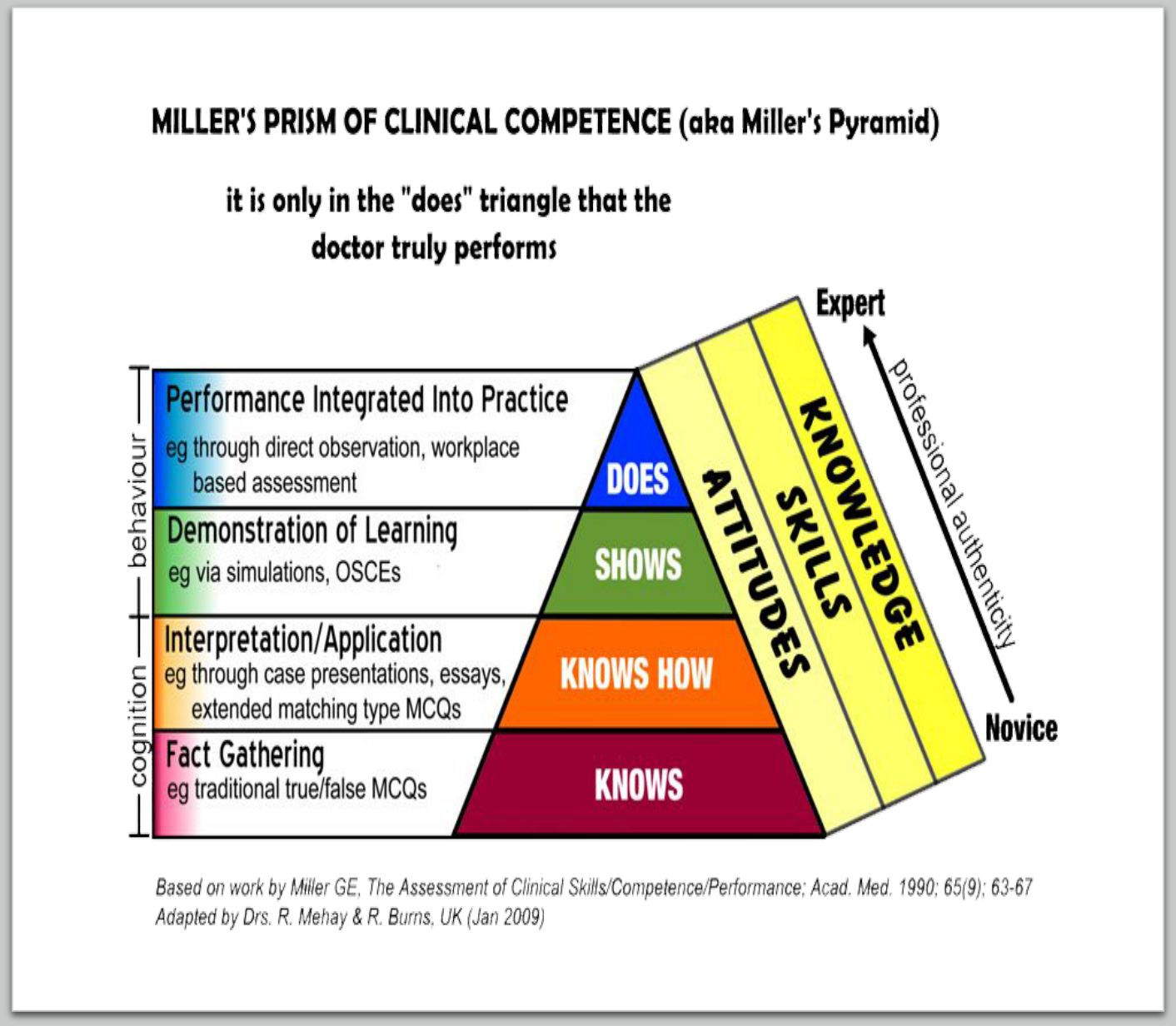
Nuts & Bolts: Course Participation - Credit

	Medicine	Nursing	Pharmacy	Social Work*	Public Health
Student Level	M4	Graduate level students (e.g. ANPs)	P3 (pilot P4)	2nd year MSW students	2nd year MPH students
Place in Curriculum	PCM Scholars Program	Independent study	Independent study Pilot - *embedded in Advanced Pharmacy Practice Experience*	Practicum coursework	Part or all of the field practicum requirements or independent study

*Planned for future participation

Assessment

- Assessment **of** Learning versus Assessment **for** Learning
- Balance between formative and summative assessment
- Mixed methods – opportunity for open ended feedback



Step 1:

Reaction - How well did the learners like the learning process?

Step 2:

Learning - What did they learn? (the extent to which the learners gain knowledge and skills)

Step 3:

Behavior - (What changes in job performance resulted from the learning process? (capability to perform the newly learned skills while on the job)

Step 4: **Results** - What are the tangible results of the learning process in terms of reduced cost, improved quality, increased production, efficiency, patient outcomes?

Kirkpatrick's Four-step Evaluation

UIC ENGAGE-IL
Enhancement of Geriatric Care for All

Objectives

1. Enhance health care professionals' knowledge and competence to integrate geriatrics into primary care

2. Educate consumers about Alzheimers' disease and related dementias

3. Empower and *engage* older adults and caregivers to enhance competency and adopt behaviors to improve overall health status

4. Enable health science students interested in geriatrics to acquire knowledge, understanding, and appreciation of integrated ethical geriatric care in a variety of health car settings

Programs

1. Online Accredited Learning in Interprofessional Geriatrics
(ENGAGE-IL-OALIG)

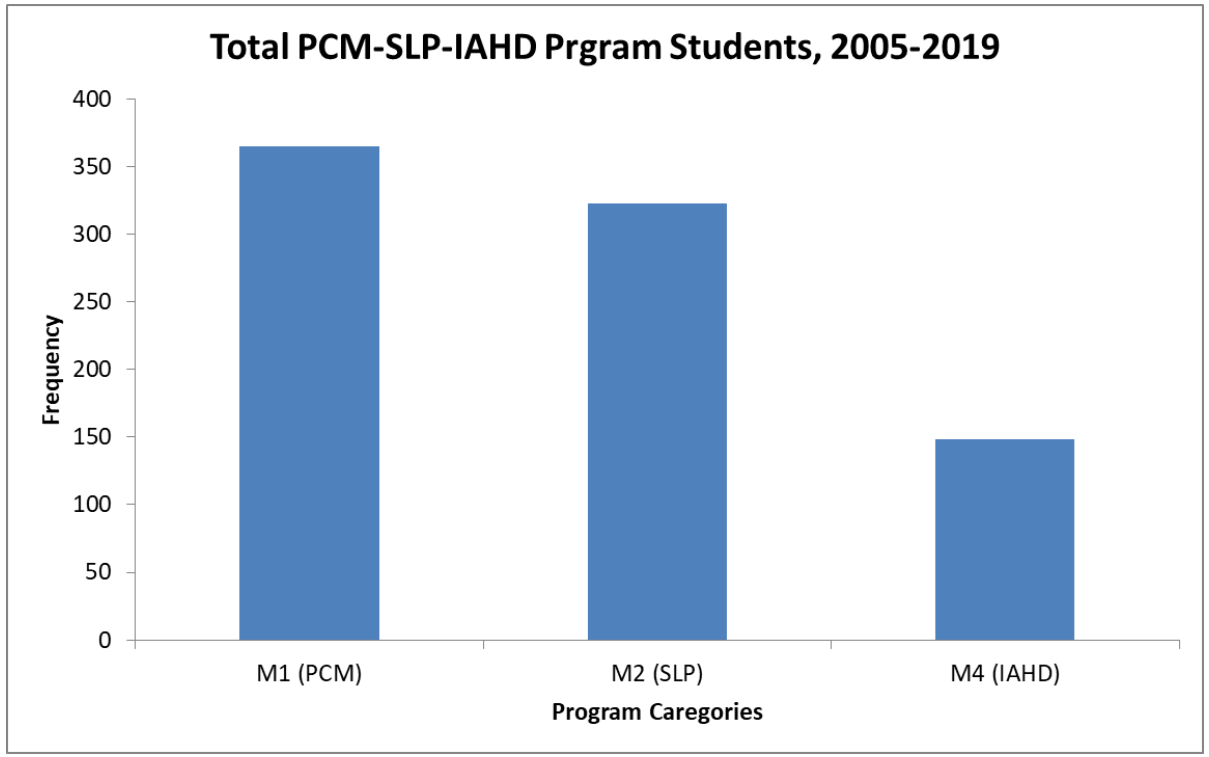
2. Digital Tools to Empower Clinicians and Communities in Interprofessional Geriatrics
(ENGAGE-IL-DTECCIG)
Dementia Guide Expert for Families

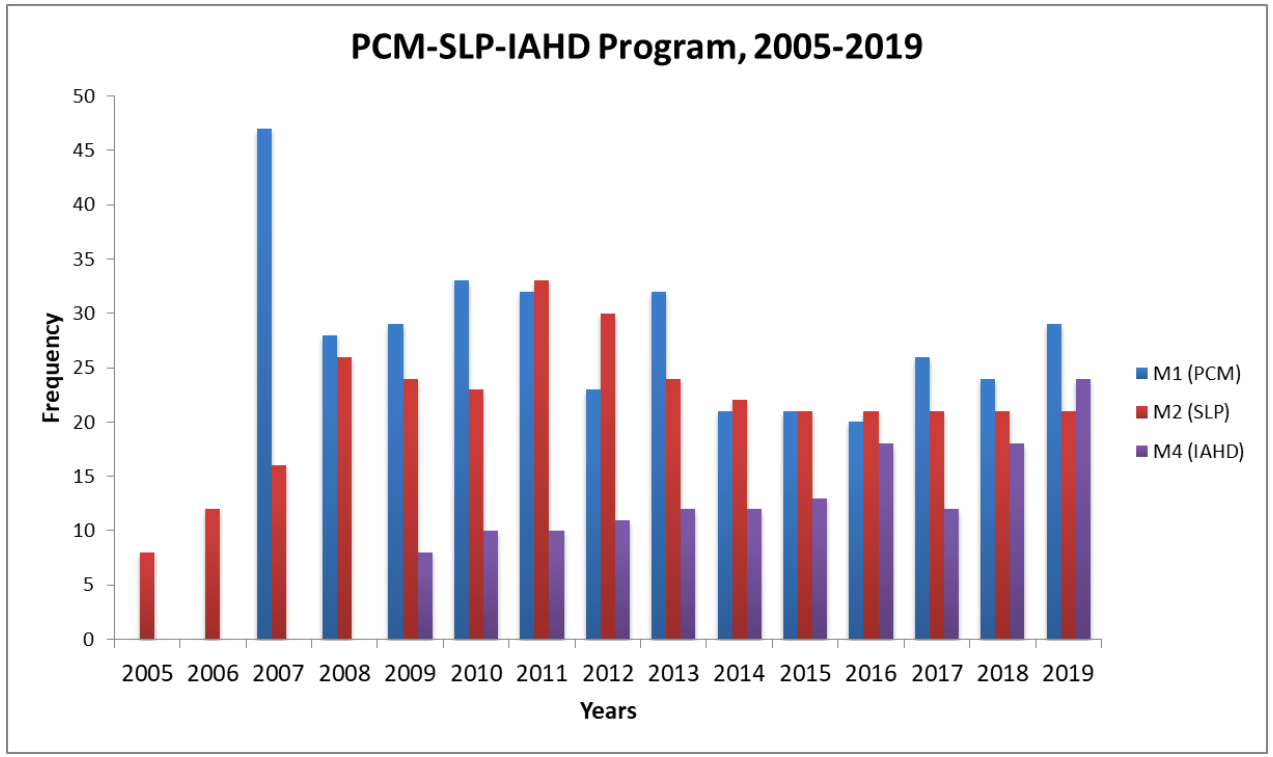
3. Community-Campus Connections in Interprofessional Geriatrics
(ENGAGE-IL-CCCIG)

4. Scholars and Leaders in Interprofessional Geriatrics **(ENGAGE-IL-SLIG)**

Go to engageil.com

Outcomes - Participants





Outcomes - Continued

- **PCM Scholars Program –** impact on choice of working in primary care and underserved settings and on population health
- **IAHD and ENGAGE-IL-SLIG** – overall positive learner feedback with suggestions for improvement
- **Online ENGAGE-IL learning modules** – over 6500 completed
- **Dementia app** - since Dec 2016, over 22,000 views/downloads in 12 different countries
- **Continuous external funding** since 2005
- **Sustainability** of educational innovations beyond grant funding
- **Involvement of multiple health professions colleges**

PCM Scholars' reflections about their experiences are available as "PCM Voices".

Learner “VOICES” – PCM-SLP

“PCM had the biggest impact on me in regards to getting to know a patient and what that patient goes through in the course of their care…I think this understanding will make me a more compassionate physician that values the time that I get with my patients more, and try to use it in the best possible way for them.”

Learner “VOICES” – PCM-SLP

“This program has enriched my appreciation for the patient’s background, lifestyle and living conditions and the way all of these factors impact his/her ability to take care of his/her health…I also received an introduction to the way that doctors think. I will take both of these important things with me into my practice.”

Learner comments – PCM-SLP

"The service learning program has motivated me to learn more about the prevalent issues that affect my communities and consequently my patient's health outcomes. As a future physician, I will be able to apply all the lessons I learned in SLP. I have learned that health is very complex and influenced by many external factors. As a physician, I will like to have the resources that will allow me to help and empower my patients. I will like to focus on patient centered and preventive medicine and hope to be involved in my respective communities."

Learner comments –

IAHD

“Every one brought different experience and expertise to our project, especially since we had members who were already practicing professionals. That was especially helpful, because she had a much better understanding of systems level issues that aren't necessarily taught in medical or pharmacy school and come from years of experience. Also, coming from different professions and perspectives greatly expanded the scope of content we could share with our target audience for our health education intervention.”

Learner comments –

IAHD

"My team members helped shape the way I see myself within an interprofessional group. I was able to identify the differences in our knowledge and skills. Together we were able to use those different perspectives to put together a project that was somewhat successful."

Learner comments –

ENGAGE-IL-SLIG

"I absolutely love all the topics that we are learning about. It's interesting, especially when we discuss healthcare as a whole at a level that is higher than each of our professions. I feel that I am learning a tremendous amount, not just about geriatrics, but also about the healthcare system. The Scholars Program fosters a fantastic learning environment that is driven by the students' interests and their eagerness to learn. The learning experience through this program is not something that I have seen in my regular coursework at the College of Pharmacy, and I am very grateful to be a part of this experience."

Learner comments –

ENGAGE-IL-SLIG

"This program has really helped me to learn more about how to be a patient advocate."

"I have really enjoyed and benefited from the multidisciplinary approach. This perspective has provided in-depth clarity as to the function of my colleagues' professions in geriatrics care, as well as a more definitive understanding of the breadth of social work practice in this context."

Program Students, Faculty, Staff, Community Partners

Pictured Front (from left to right): Dr. Griselle Torres, Dr. Susan Altfeld, Dr. Memoona Hasnain, Dr. Valerie Gruss, Dr. Nimmi Raj Gopal
Back (from left to right): Dr. Amanda Perry, Dr. Michael Koronkowski, Dr. Ron Chacko

Patient-centered Medicine (PCM) Scholars Program, Service Learning Program (SLP) & Interprofessional Approaches to Health Disparities (IAHD)

PCM Scholars Program fosters the development of critically reflective future health professional leaders, scholars and change agents who embrace the concepts of patient advocacy, humanism, and compassion, and blend it with the art and science of their health professions.

The programs offers medical students and other health science students learning opportunities to work with culturally and socioeconomically diverse patients in clinical settings and in the community.

Each year, interprofessional student teams engage in didactic and experiential learning activities, including mentored community-based participatory research (CBPR) and quality improvement (QI) projects.

- 5 Concentrations for SLP and IAHD: Domestic violence, HIV/AIDS, Homelessness, Geriatrics, and Immigrant & Refugee health
- Team of 12 interprofessional faculty - Medicine, Nursing, Pharmacy and Public Health.
- Over 300 medical students - participated in the SLP since 2005.
- Nearly 100 students from medicine, nursing, pharmacy and public health - participated in IAHD since 2014.
- 100+ presentations - conducted at community sites by students to close the gaps on health disparities.
- Community Partners:

  Connections for Abused Women and their Children (CAWC)
  Project Vida; EdgeAlliance/ AIDSCare Progressive Services
  Lincoln Park Community Shelter; Cathedral Shelter (now Revive)
  Housing Opportunities and Maintenance for the Elderly (H.O.M.E.)
  Heartland Alliance, Syrian Community Network

PCM-SLP-IAHD Program Director: Memoona Hasnain, MD, MHPE, PhD, Interim Head, Department of Family Medicine, memoona@uic.edu To learn more, visit: **https://tinyurl.com/yyjwtzpl**

Syrian Community Health Fair – March 2019

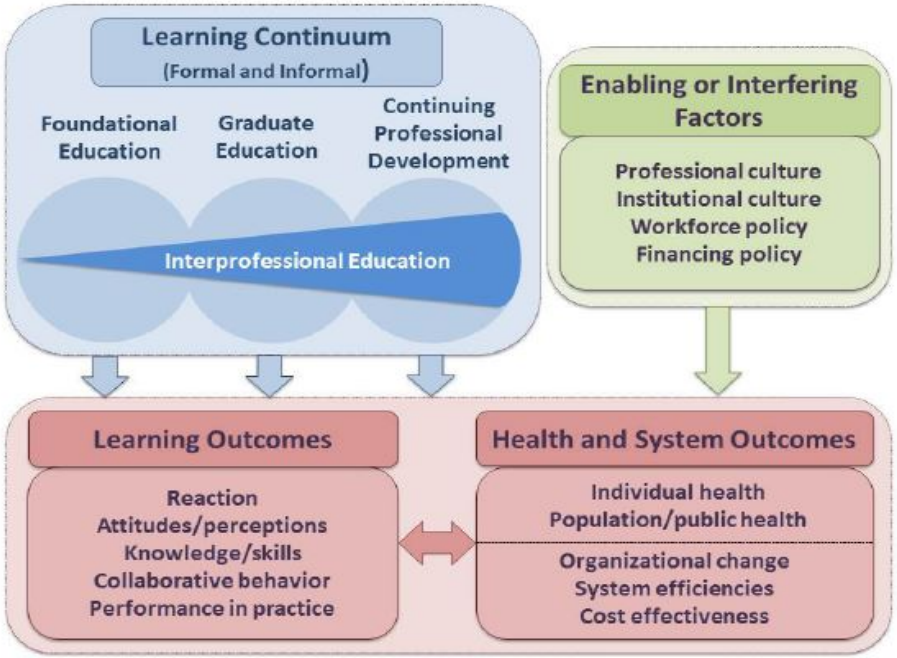
Building healthy communities through care, compassion and collaboration

- UIC Interprofessional Approaches to Health Disparities (IAHD) Immigrant & Refugee Health Concentration Scholars organized and carried out the health fair
- Focus - **nutrition**, **diabetes**, **blood pressure**, **smoking cessation** and **mental health**
- Special thanks to our community partner, the Syrian Community Network, the Mecca Center and all volunteer faculty and students from medicine, nursing and pharmacy

Community-based Participatory Research Projects 2014-2019

Concentration	CBPR Projects
Domestic Violence	• Self-Care Tools and the Effect on Quality of Life for Survivors of Domestic Violence • Health Care Literacy & Empowerment for Survivors of Domestic Violence • Rediscovering Her Power: Assessing & Increasing Empowerment Amongst Survivors of Domestic Violence • Finding My Voice: Navigating the Healthcare System Curriculum
Geriatrics	• Assessment of a Navigation Tool to Assist in Improving Healthcare Activation amongst Senior Residents: A Prospective Study Using Community-Based Participatory Research • Using Active Remote Care Technology to Enhance Health and Wellbeing of Home-residing Older Adults: Evaluation of Initial Impacts and Future Directions • Geriatric Health Literacy: Piloting a Healthcare Appointment Workbook • Efficacy of Different Curricular Methods of Chronic Disease Self-Management Education Programs among Community Dwelling Older Adults
HIV/AIDS	• Improving Health Literacy at Project VIDA • Peer Video Testimonials to Increase Use of PrEP by African American and Latino Communities in Chicago • PrEP Continuum of Care: Analysis of Outreach to PrEP Initiation and Follow-up • Increasing PrEP Adherence
Homelessness	• An Interprofessional Approach to Improving Health Disparities in a Homeless Population • Nutrition Education & Cookbook Design at the Lincoln Park Community Shelter: A Community Based Participatory Research (CBPR) Pilot Study • Homelessness and Diabetes
Immigrant & Refugee Health	• Assessing Barriers to Health Care Access amongst Refugees Recently Resettled in Chicago • Preventative Health Care Among Syrian Refugees: Beliefs, Practices, and Experiences • Employing a Health Fair to Determine the Healthcare Needs of the Syrian Refugee Population

FIGURE: The Interprofessional learning continuum (IPLC) model



NOTE: For this model, "graduate education" encompasses any advanced formal or supervised health professions training taking place between completion of foundational education and entry into unsupervised practice.

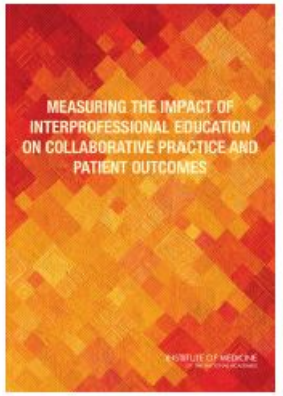
REPORT BRIEF APRIL 2015

INSTITUTE OF MEDICINE
OF THE NATIONAL ACADEMIES

Advising the nation • Improving health

For more information visit www.iom.edu/IPE

Measuring the Impact of Interprofessional Education on Collaborative Practice and Patient Outcomes



Interprofessional Conceptual Model for Evaluating Outcomes

JOURNAL OF INTERPROFESSIONAL CARE
http://dx.doi.org/10.1080/13561820.2016.1249789

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ORIGINAL ARTICLE

Development and validation of a tool to assess self-efficacy for competence in interprofessional collaborative practice

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ABSTRACT

Although interprofessional education and collaborative practice have gained increasing attention over the past five decades, development of rigorous tools to assess related competencies is still in infancy. The purpose of this study was to develop an instrument to evaluate health professions students' self-efficacy in interprofessional collaborative competency and to assess the instrument's psychometric properties. We developed a new instrument based on the Interprofessional Education Collaborative's (IPEC) *Core Competencies for Interprofessional Collaborative Practice*. In a cross-sectional study design, 660 students from 11 health programmes at an urban university in the Midwest USA completed the Interprofessional Education Collaborative Competency Self Efficacy Tool (IPECC-SET). Rasch analysis evaluated the following: (1) functioning of the instrument; (2) fit of items within each subscale to a unidimensional construct; (3) person-response validity; (4) person-separation reliability; and (5) differential item functioning in relation to gender and ethnicity. After removing seven items with suboptimal fit, each subscale demonstrated high internal validity. Two items demonstrated differential item functioning (DIF) for "Gender" and none for "Race/Ethnicity." Our findings provide early evidence of IPECC-SET as a valid measure of self-efficacy for interprofessional competence for health professions students. Additional research is warranted to establish external validity of the new instrument by conducting studies across institutions.

ARTICLE HISTORY
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KEYWORDS
Collaborative competence; interprofessional collaboration; interprofessional education; interprofessional evaluation; interprofessional practice; self-efficacy

Challenges & Discoveries

- Understanding change, stakeholder engagement – Kotter 8 steps
- Curricular transformation – providing a structure and mechanism for integration of innovations
- Coordination, organization, time management
- Staying true to process – patience & perseverance
- Developing & maintaining trust and respect, avoiding hierarchal roles
- Maintaining motivation – intrinsic versus extrinsic
- Unanticipated benefits
- Vision - big picture

Small Group Discussion

Please reflect on:

Your experiences in using CBPR methodology and interprofessional education.

See reflection guide for questions.

Group Reports

Let’s Develop Action Plans

Key Take Home Lessons

Utilize a systems approach

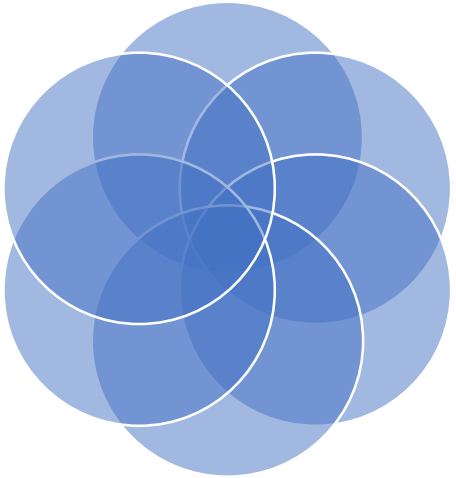
Integrate educational theory and principles

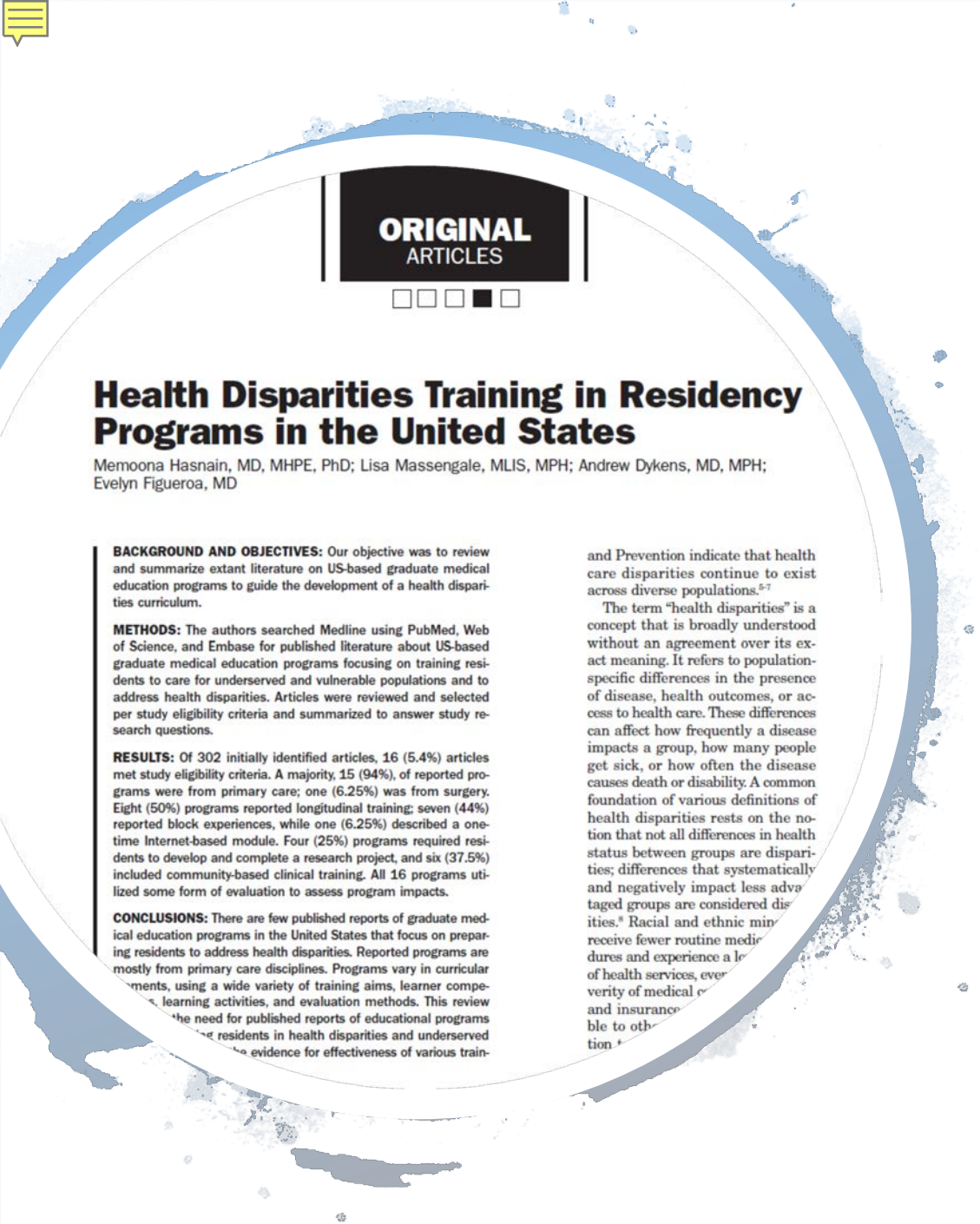
Optimize the change process

CQI - Build on incremental blocks

Don’t be paralyzed by perfection

Do everything with love, joy and gratitude





ORIGINAL ARTICLES

Health Disparities Training in Residency Programs in the United States

Memoona Hasnain, MD, MHPE, PhD; Lisa Massengale, MLIS, MPH; Andrew Dykens, MD, MPH; Evelyn Figueroa, MD

BACKGROUND AND OBJECTIVES: Our objective was to review and summarize extant literature on US-based graduate medical education programs to guide the development of a health disparities curriculum.

METHODS: The authors searched Medline using PubMed, Web of Science, and Embase for published literature about US-based graduate medical education programs focusing on training residents to care for underserved and vulnerable populations and to address health disparities. Articles were reviewed and selected per study eligibility criteria and summarized to answer study research questions.

RESULTS: Of 302 initially identified articles, 16 (5.4%) articles met study eligibility criteria. A majority, 15 (94%), of reported programs were from primary care; one (6.25%) was from surgery. Eight (50%) programs reported longitudinal training; seven (44%) reported block experiences, while one (6.25%) described a one-time Internet-based module. Four (25%) programs required residents to develop and complete a research project, and six (37.5%) included community-based clinical training. All 16 programs utilized some form of evaluation to assess program impacts.

CONCLUSIONS: There are few published reports of graduate medical education programs in the United States that focus on preparing residents to address health disparities. Reported programs are mostly from primary care disciplines. Programs vary in curricular ments, using a wide variety of training aims, learner compe- learning activities, and evaluation methods. This review he need for published reports of educational programs g residents in health disparities and underserved e evidence for effectiveness of various train-

and Prevention indicate that health care disparities continue to exist across diverse populations.[5-7]

The term "health disparities" is a concept that is broadly understood without an agreement over its exact meaning. It refers to population-specific differences in the presence of disease, health outcomes, or access to health care. These differences can affect how frequently a disease impacts a group, how many people get sick, or how often the disease causes death or disability. A common foundation of various definitions of health disparities rests on the notion that not all differences in health status between groups are disparities; differences that systematically and negatively impact less adva taged groups are considered dis ities.[8] Racial and ethnic min receive fewer routine medic dures and experience a l of health services, ever verity of medical c and insurance ble to oth tion

Future Directions

- Continuous program refinement through rigorous learner assessment and program evaluation
- Linking UGME, GME and Faculty development
- Ongoing program of interprofessional education, service and research/scholarship
- Improving prevention and population health with special focus on understudied vulnerable populations – new concentrations in "Disability" and Incarcerated populations" in planning phase

Let's work together, the possibilities are endless!

Foster the development of critically reflective future health professional leaders and scholars who embrace the concepts of patient advocacy, humanism, and compassion, and blend it with the art and science of different health professions

"Together we can do so much." Hellen Keller

Transformative Education – In Action

"With great privilege comes great responsibility. I'm unbelievably lucky to have my dream job - being a FAMILY DOCTOR! In return for my training, I am giving back to communities in need via the National Health Service Corps. I recently became the ***Medical Director at Foremost Family Health Center in Balch Springs TX****, which means* ***besides being the only Family Doctor in the town, I'm challenged to build up a whole team of clinical staff and services to meet the needs of this community****. What an amazing opportunity to make a difference!"*

Lindsay Martin-Engel, PCM Graduate 2013

Acknowledgements

- Contributions of a large number of individuals – students, staff, faculty, UIC Health Professional Colleges, **Community Partners** - including agency staff & clients from:
  - Connections for Abused Women and their Children (CAWC)
  - Project Vida; EdgeAlliance/ AIDSCare Progressive Services
  - Lincoln Park Community Shelter; Cathedral Shelter (now Revive)
  - Housing Opportunities and Maintenance for the Elderly (H.O.M.E.)
  - Heartland Alliance, Syrian Community Network
- **Funding:** American Medical Student Association [AMSA], Association for Prevention Teaching & Research [APTR] & CDC, Grant # 1 D56 HP 08344 by the Health Resources and Services Administration, Josiah Macy Junior Foundation, HRSA Geriatrics Workforce Enhancement Program (GWEP) Grant # U1QHP28730
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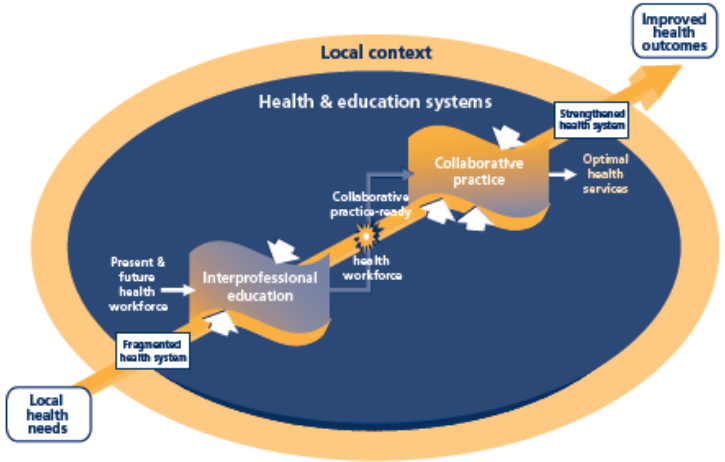
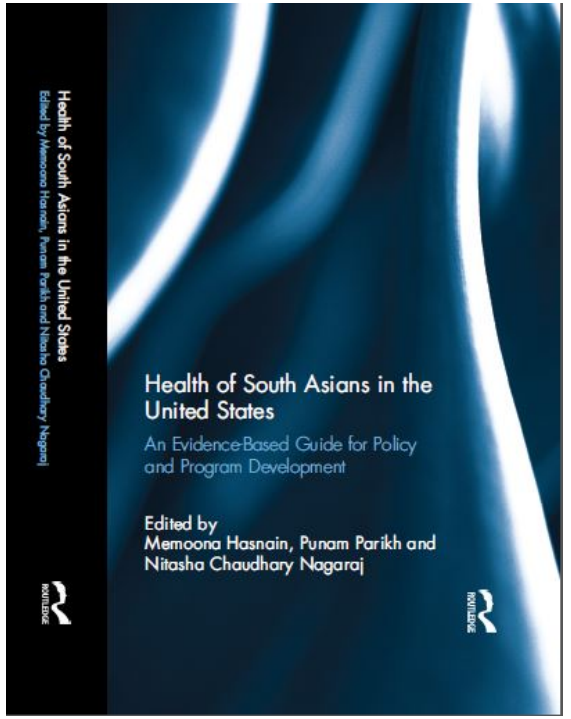
"Of all the forms of inequality, injustice in health care is the most shocking and inhumane."
Martin Luther King Jr.

Additional Resources:

- Patient-centered Medicine Scholars Program
- ENGAGE-IL
- New Book on South Asian Health
- UIC IPECC-SET





Thank you!

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Although IPE can be viewed as curriculum (what material is learned) or an instructional method (how material is learned), **its real promise lies in its role as a lever for promoting change.**
Dow & Thibault, NEJM 2017

Resource: Facilitating factors for sustaining CBPR partnerships

Funding and Other Resources for Partnership Infrastructure	Established Core Principles
Funding and Other Resources for the Community	Continuous Planning Process
Excellent Project Manager	Ability to Evolve
Tangible Benefits to Members of the Partnership	Having a Specific Focus
Having the Right People and Organizations Involved	Having a National Reputation
Organizational Representation	Being About an Approach (CBPR), Not Just a Project
Strong Staff Team	Excellent New Partners
Shared Experiences and History	Trust
Good Communication	Performing Internal Evaluations
Strong Long-term Commitment	Learning from Past Mistakes and Successes
Individual Relationships Between/Among Partners	Flexibility
Mutual Respect and Support	Humor
Shared Understanding or Shared Purpose	Achievement of Targeted Goals

Developing and Sustaining Community-Based Participatory Research Partnerships: A Skills-Building Curriculum University of Washington - Unit 7

2019 IAHD Projects

Finding My Voice: Navigating the Healthcare System

Exploring the Creation of a Healthcare Navigation Curriculum for Survivors of Domestic Violence Through Community Engagement and Interprofessional Collaboration

Aileen Chan, Maria Guadalupe Gomez, Farah Khan, Elizabeth Ortiz, Nikki Waltrich, Sonia Oyola MD, Memoona Hasnain MD, MHPE, PhD

Interprofessional Approaches to Health Disparities | University of Illinois at Chicago

Background

Connections for Abused Women and Children (CAWC)[1]

Mission - CAWC is committed to ending domestic violence. Using a self-help, empowerment approach, they provide a shelter for adults and children, counseling, advocacy, and a 24-hour hotline for people affected by domestic violence. They work for social change through education, service collaboration, and institutional advocacy.

Services include:

- Individual and group counseling
- Life skills training in goal setting, budgeting and safety planning
- Housing, income, employment and educational information
- Legal advocacy including court orders and immigration

Problem Statement

Survivors of intimate partner violence (IPV) serviced by CAWC identified a need for a safe space to have open dialogue related to navigating health care service barriers.

Research Question

Do the "Finding My Voice: Navigating the Health System" (FMV) workshops support IPV survivors in navigating healthcare system barriers?

Objectives

a. **Identify** most beneficial aspects of FMV
b. **Evaluate** knowledge gained from FMV
c. **Ascertain** skills gained from FMV

Literature Review Summary

- 1 in 3 women and 1 in 4 men in the United States have experienced some form of physical violence by an intimate partner[2]
- Conservation of Resources (COR) Theory posits that traumatic events result in loss of resources; IPV services counter this loss by connecting survivors to resources, increasing overall well-being and resilience[3]
- A patient's maintenance of consistent healthcare treatment is inextricably linked to having access to culturally-sensitive and appropriate interventions and programs[4]
- Skill building using role-playing improves self-efficacy[3]
- Limited research conducted on IPV services exists to adequately evaluate and understand whether the complex dynamic needs of survivors are met[5]

Methodology

Study Design: Pre-Post Intervention Study

Intervention

- Four workshops offered during CAWC support group followed by self-care activities including poetry reading, mindfulness exercises, guided meditations, and manicures.
  - Session 1 - Navigating Insurance and the Affordable Care Act
  - Session 2 - Empowering Conversations With Clinicians
  - Session 3 - Women's Health
  - Session 4 - Assisted yoga and guided meditation

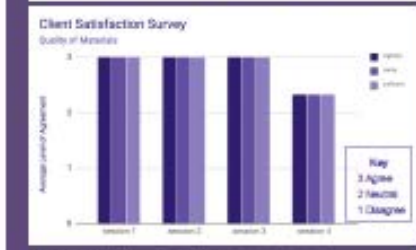
Measures & Data Collection

- Mixed-methods survey with true-false, Likert-scale and open-ended questions
  - Satisfaction questions
    - Quality of resources provided
    - Quality of session content
  - Skills-based questions
    - Skills gained (i.e. self care techniques)
  - Open-response questions
    - Recommendations to improve sessions
    - Skills gained
- Field notes and debriefing sessions following workshops by IAHD team

Acknowledgments

This project was supported by the Department of Family Medicine, College of Nursing, College of Pharmacy, College of Medicine, and the School of Public Health. Special thanks to the women at CAWC, Maritza Osorno, CAWC staff, Dr. Hasnain, Dr. Oyola, Dr. Alfeld and Turiya Ingram.

Results



Qualitative Findings

Benefits, Skills & Knowledge

Selected Participant Quotes:

*"The most beneficial aspect was [learning] how to speak up and **empower myself.**"*

*"One most important thing or lesson that [I am] taking away from this session is to **not just [agree] to doctor's decisions.**"*

*"The most important lesson I am taking with me will be to **get checked for multiple [exams] at the same time** rather than [only] STI checks."*

*"[I am learning to] not be critical with myself and **allow myself ample time to heal**; instead of being disappointed with myself that I'm still wounded."*

Conclusions

Key Findings

- Participants were satisfied with the content and quality of resources provided
- Participants found the open dialogue and self care activities to be the most beneficial part of FMV
- Workshops improved knowledge about women's health topics

Skills Gained

- Tactics to better communicate concerns and needs with providers
- Mindfulness and breathing techniques
- Formulating and integrating empowerment statements into daily life

Implications

- Identified gaps between survivors, health care providers, and health care systems
- Illuminated needs of IPV survivors that commonly go unaddressed given lack of studies highlighting IPV survivor experiences with healthcare system

Lessons Learned by IAHD Scholars

- Client group needs evolve; be flexible
- Maintain balance between agency and client needs
- Do not discount the resiliency and ability of survivors

Strengths

- Diversity in experiences of survivors, CAWC staff, and IAHD scholars
- Developed meaningful relationships with CAWC clients and staff
- Interprofessional collaboration supported depth of workshop content
- Workshops are replicable for future IAHD cohorts

Limitations

- Inconsistent group attendance
- Limited timeframe to standardize and expand study
- Unable to accommodate Spanish-speaking group in-person
- Limited sample size
- IAHD research took time away from regularly scheduled program

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Efficacy of Different Curricular Methods of Chronic Disease Self-Management Education Programs Among Community Dwelling Older Adults

Good Life Senior Residences @ HOME

Darwish, D. Lester, T. Rivera, L. Schorsch, P. Gruss, V.

Interprofessional Approaches to Health Disparities | University of Illinois at Chicago

UNIVERSITY OF ILLINOIS AT CHICAGO
INTERPROFESSIONAL APPROACHES TO HEALTH DISPARITIES

Background

Pat Crowley House, a residential site of Housing Opportunities and Maintenance for the Elderly (H.O.M.E.) provides access to affordable housing and services to low-income seniors in Chicago

Problem

- Seniors living in subsidized housing have lower income, poorer health, and increased risk for multiple chronic conditions.
- They need education on self-management of common chronic health conditions.
- The best curricular methodology for delivering patient education for older adults has not yet been established.

Study Purpose

To identify which curricular methodology works best in providing basic chronic disease (CD) management education to enhance healthcare management community-dwelling older adults

Summary of literature

- Studies aimed at improving quality of life, decreasing risks, and increasing health status (1) have been found to help people better manage symptoms of CD
- Modalities used to assess geriatric understanding of health risks and conditions include online information sources, physical paper symbols, and direct provider-patient conversation (8,9)
- Improvements in medication compliance were seen if patients given direct handouts, charts, and illustrations particularly aimed at lower literacy levels (5)
- Student based curriculum did not lead to direct improvement in patient labs such as HbA1C, but increased interest in health promotion by providing a social opportunity for patients to interact, be hands on, and openly ask questions (7)

Methodology

Design

Older adult residents of the H.O.M.E. Pat Crowley House attended four weekly sessions of an educational program on managing CDs. Pre-post test design used a survey to measure the degree of change in older adults' knowledge, disease self-management and understanding of resources occurring as a result of the educational intervention on CD management using different curricular formats (self-directed, team-based, didactic, and interactive game).

Procedure for Data Collection and Implementation

- Each participant completed a pretest survey followed by a 45-minute educational intervention session on a CD management and healthy lifestyle. At the conclusion, each participant completed the posttest survey.
- PRE-TEST: A brief survey of basic knowledge and understanding of four CDs (hypertension, diabetes, osteoarthritis, COPD) was developed using a standard template to control for variations.
- INTERVENTION: Participants were invited to a series of weekly health seminars in their residential living room. Sessions were scheduled on a weekly basis at the same time and day of the week, as much as possible. Each educational session was 45 minutes. The four sessions were conducted using a different curricular format; Week 1) lecture, Week 2) self-directed, Week 3) team-based learning, Week 4) interactive game.
- POST-TEST: The brief survey was administered immediate post-educational intervention.
- EVALUATION: Data collected was organized into a table for comparison of degrees of change from pre to post intervention with different curricular format.

Results

- Each of the four different curricular formats were found to increase the knowledge (knowledge, self-management, understanding resources) of the residents as shown by the results of the pre and post-tests in Table 1.
- Thus, these educational sessions were all able to make an impact with interactive game format making the greatest impact.

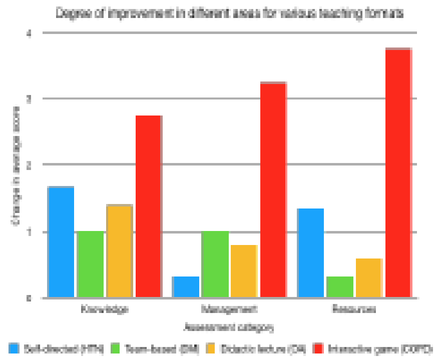
Table 1. Pre-Post educational intervention increase in residents' knowledge, self-management and resources by curricular format

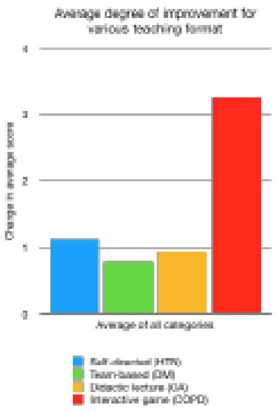
Curricular Format (topic)	Self-Directed (HTN) N =3	Team-Based (DM) N =3	Didactic Lecture (OA) N =5	Interactive Game (COPD) N = 4
Knowledge	1.67	1	1.4	2.75
Disease Self-Management	0.33	1	0.8	3.25
Understanding Resources	1.34	0.33	0.6	3.75

Table 2. Pre-Post change increase in knowledge for various curricular formats

	Self-Directed (HTN) N =3	Team-Based (DM) N =3	Didactic Lecture (OA) N =5	Interactive Game (COPD) N =4
Change in pre-post scores	1.11	0.78	0.93	3.25

- It can be seen from the Table 2 and bar graphs below that the **interactive game format** had the biggest impact in increasing the perceived knowledge of the residents with an average increase of 3.25 points on the survey compared to 1.11 points for self-directed, 0.78 points for team based, and 0.93 points for didactic lecture.
- This significant increase with the interactive game format is likely due higher retention of the information and more encouragement for participation from the residents.
- This study shows that the **interactive game format** is by far the best method to use in the older adult population when teaching about health topics and can inform how other educational programs targeted to this audience are structured.





Conclusion

Key findings and how they relate to prior evidence

- In general, people learn differently, and thus various approaches to learning must be implemented.
- Healthcare providers must be aware that caring for different populations needs to involve population-focused approaches.
- Our results show that the participants in our study improved their learning significantly by participating in an interactive game.
- As we age, our dexterity and other physical and physiological processes begin to decline. As a result, teaching methods in the elderly population must be designed to meet their needs and abilities.

Implications

While more research needs to be conducted, our results show significant differences in how the elderly population learns and retains information. This is important to all healthcare providers caring for this population as improved learning and retention can lead to increased adherence to medical care plans and thus improved patient outcomes.

Limitations

There were limitations to this community based participatory research project: Small sample size of 3-5 attendees for any given session; non-controlled variables, such as the different chronic condition topic of presentation, different speaker for each session, different time of day and week when the sessions were given.

Next steps/ future directions

Recreate this study with a larger sample size and fewer variable
Examine and improve the set-up of the interactive format to optimize the design as a health educational tool for the elderly population

References

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5. [illegible]
6. [illegible]
7. [illegible]
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Acknowledgements

Thank you H.O.M.E. for allowing us to work with your residents, Dr. Valerie Gruss for being a great faculty mentor, and the Department of Family Medicine for the opportunity to participate in PCM and IAHD.

Identifying Barriers to PrEP Access & Adherence within the At-Risk African American and Latinx Populations served by Project Vida in Chicago

Ahad Bagasarawala MD(c), Christina Feng, MSN(c), Anna Haltman PharmD(c), Surbhi Jain MD(c), Virginia Mason MPH(c), Seunghee Song DNP-WHNP(c), & Patrick A. Tranmer, MD, MPH

Interprofessional Approaches to Health Disparities | University of Illinois at Chicago

Background

- Pre-exposure prophylaxis (PrEP) is a safe and effective method for HIV negative patients who engage in high-risk behaviors to prevent acquisition of the infection.[11]
- When taken consistently, PrEP has been shown to reduce the risk of HIV infection in high-risk people by 92%.[11]
- Although there are an estimated 1 million people in the United States who would benefit from PrEP, it has been prescribed to less than 150,000 people since it went on the market in 2014.[8]
- PrEP adherence rate (approximately only 10% of people who can benefit) in Chicago, Illinois is higher than the national average (6.42%).[1]
- Disproportionate level of HIV diagnoses within MSM in Chicago (making up 71.8% of all new cases).[2]
- Latinx and African American populations are at a greater risk for contracting HIV than their white non-Hispanic counterparts at 1.63 and 3.78 times greater, respectively.[1]
- An estimated 1.1 million people in the United States are living with HIV as of 2015.[3]

Research Question

What barriers are prohibiting the at-risk African American and Latinx population, in Chicago, served by Project Vida from adhering to PrEP adherence?

Community Partner

Project Vida is a community organization that aims to improve quality of life and reduce health disparities in underserved communities by promoting self-empowerment and providing holistic health education and direct services.[4]

The organization currently serves as a point for direct services as well as connecting community members with resources in the Little Village neighborhood of Chicago.[4]

Proposed Methods & Objectives

Project Purpose and Design:

1. Understand the barriers associated with low adherence to PrEP in the at-risk African American and Latinx communities, in Chicago, served by Project Vida
2. Assess local barriers experienced by this community through focus groups, questionnaires,
3. Provide PrEP resources to community members

Methods for Proposed Program Implementation

Community Outreach:

Project Vida will host routine outreach events and advertise our focus groups. Our group created a flyer with focus group information and RSVP instructions.

Focus Group Location:

UIC West Campus was chosen to host all focus groups. The location decision was done in collaboration with Project Vida (due to transportation access).

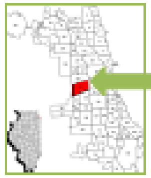
Compensation:

Community members will be offered refreshments during the focus group and a voucher to a popular night club of their choosing. Voucher will be provided by Project Vida.

Procedures for Data Collection:

Questionnaires will be administered during focus groups, 1 and 3-month follow-ups, & follow-up with pharmacies to obtain prescription fill history.

Literature Review Methods



Our group started with Project Vida in the Little Village neighborhood of Chicago and expanded our literature review to include all United States journal articles addressing barriers to PrEP.

Keywords: "Perceived barriers to PrEP adherence," "stigma associated with PrEP use," "questionnaire development," "challenges associated with qualitative collection of patient-centered outcomes data," psychological barriers to PrEP adherence," "demographics of PrEP candidates/those who would benefit from PrEP but are not using," "epidemiologic benefits of PrEP," "improve qualitative survey," "strategies for qualitative survey questionnaires," and "effective survey questionnaires."

Databases: New England Journal of Medicine, PubMed, CDC, CINAHL

Inclusion Criteria: Clients screening HIV negative, African American or Latinx, part of the MSM community, in pre-contemplation, contemplation or preparation stage for using PrEP.

Results

Common Themes from the Literature on PrEP Access and Adherence Barriers

Medical System (Provider & Mistrust)

Focus groups of clinicians elicited the following concerns as reasons providers do not prescribe PrEP: PrEP would cause unnecessary harm, patient adherence, and confusion about who should be the prescriber.[7] Some PrEP candidates are distrustful of the medical system due to a history of mistreatment of black and Latino communities.[4]

Financial Burden

The cost of PrEP does not merely contain the cost of the medication, but also the multiple office visits and labs required.[4] The cost for a year of PrEP could be $10,000 or more without insurance. Black and Latino gay and bi-sexual, and transgender women are more likely to be uninsured.[4]

Drug Side Effects

Candidates lack an understanding of the side effects of PrEP when mixed with alcohol, drug use, kidney damage, etc.[5] Over a third of YMSM in the sample surveyed by Bauermeister et. al responded that they would not take PrEP due to side effects.[11]

Lack of Knowledge

A lack of knowledge around PrEP leads to miscommunication, multiple different messages being spread within the LGBTQ community, etc. These varieties of misinformation have made possible PrEP candidates "confused] and overwhelmed]."[9]

Stigma

The stigma experienced by PrEP users can be seen from a connection to HIV/AIDS, sexual orientation, and the sexual freedom of using PrEP. In turn, PrEP users have noted that the PrEP program for does not address the "impact of mental health and social stigma."[4]

Quantitative Survey

Multidimensionality:

- Identify which variable each question is designed to measure[18]
- Identify how the variable is possibly affected by other variables[18]
  - Accounts for confounding

Subjectivity:

- Define all medical terms by placing the definitions at the beginning of the survey[18]
- Collect demographics on the subjects, such as age, primary language spoken, and highest level of education completed, etc.[18]

Numerical Results:

- Define the clinical interpretation of each numerical value in relevance to the question[18]
- Maintain consistency across all questions[18]
- This method strengthens clinical relevance of survey results[18]

Translation:

- Ensure the meaning of each clinical term and interpretation of the numerical values are maintained across various languages[18]
- This method improves validity of the survey[18]

Qualitative Survey

Exploratory:

- Open ended questions help the audience lead discussion[12]
- The information obtained gives researchers idea on how to tailor their survey questions to better reflect the main research question and the target audience.[12]

Validity:

- Performing a pilot study with a first set of questionnaires can help researchers assess whether the questionnaires truly reflect the target audience and the main research question.[14]
- This method increases the validity of the questionnaires.[14]

Credibility:

- Assess whether the target audiences understand the questionnaires through a pilot study.[14]
- Edits made to questionnaires post pilot study, better reflect the knowledge level of audience.[14]
- This method increases the credibility of the questionnaires.[14]

Relevance:

- Creating succinct and clearly interpretable questions helps researchers obtain answers that are more specific to research objectives.[12]
- This method increases the relevance of the data.[12]

Discussion & Conclusion

Key Findings

- The literature review highlighted current barriers preventing persons from accessing and adhering to PrEP (thus reducing the PrEP adherence rate)
- Analyzed published data to tailor the direction of our research
- Designed focus groups that will provide a safe and open space for clients to share the barriers they are facing
- Designed questionnaires to collect quantitative and qualitative data that will collect the participants' knowledge and barriers to PrEP (to be used to create an intervention specifically for the clients served by Project Vida)

Implications/Outcomes

- Main Goal - providing a roadmap for next year's HIV/AIDS group to create an intervention to target the specific barriers faced by Project Vida's clients
- Designed three levels of goals
  - Short term - providing information on overcoming barriers on PrEP
  - Mid-term - informing future interventions for Project Vida to reduce these barriers
  - Long term - reduction in barriers to accessing and adhering to PrEP within our specific population

Lesson Learned

- Designing focus groups, implementing the focus groups, and collecting data was more time intensive than we anticipated but it will be a great resource for next year's HIV/AIDS group

Next Steps/Future Directions

- Given the time frame, we would like to next year's HIV/AIDS group to carry out our planned intervention to assess how Project Vida can provide help reduce barriers this increasing client PrEP access & adherence.

References

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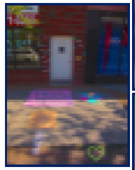
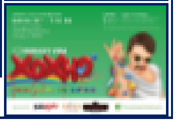
We appreciate the time and effort that Project Vida team placed into the project.

We look forward to the continuation and growth of this work!





A Nutrition Educational Initiative for Homeless Persons in Chicago

UNIVERSITY OF ILLINOIS AT CHICAGO
INTERPROFESSIONAL APPROACHES TO HEALTH DISPARITIES

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Edwin Le, BA, College of Pharmacy, Steven Papastefan, BA, College of Medicine,
Interprofessional Approaches to Health Disparities | University of Illinois at Chicago

Background

- Homeless persons in Chicago face a variety of unique challenges that have a direct or indirect impact on their health.
- **Proper nutrition** is particularly difficult for homeless persons, and many have diets deficient in essential vitamins and macronutrients. Additionally, financial limitations may lead homeless persons to purchase inexpensive foods high in saturated fats, sugars and salt.
- We sought to establish a community-based, collaborative partnership **with the Lincoln Park Community Shelter (LPCS)** to address challenges faced by their residents.
- **AIM:** to improve the nutritional literacy of our guests, and to better understand the challenges faced by homeless persons in achieving good nutrition. We also aimed to better understand our inherent biases and privilege when interacting with homeless persons in Chicago.

Methodology

Needs Assessment: A needs-based assessment consisting of interviews of the residents and social workers identified nutritional education as an actionable intervention in a needed area of improvement for the residents.

Pre-Intervention Survey: A pre-intervention survey was administered to the residents to assess diabetes knowledge, nutritional literacy and confidence in nutritional decision-making.

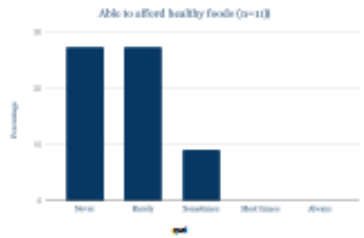
Nutritional Education Intervention: Four specific sub-challenges in nutritional management: 1) Diabetes fundamentals, 2) nutrition fundamentals, 3) financial considerations
4) in-practice nutritional decision-making.

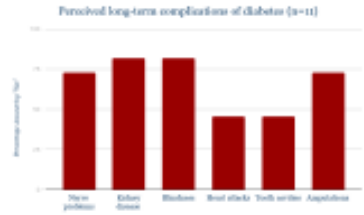
- All sessions were presented through PowerPoint presentations. Sessions were interactive, conversational and encouraged learner-participation.
- Sample foods were used in the final session for nutritional label reading and financial decision-making demonstrations.

Results

Pre-Intervention Diabetes Survey Results

Factor	Score (1 - Not at all confident/knowledgeable 5 - extremely confident/knowledgeable)
Confidence in diabetes management (n=1)	3
Confidence explaining diabetes to others (n=1)	2
Confidence in making healthy food choices (n=11)	2.64
Confidence in preventing long-term complications of diabetes (n=11)	2.09
Perceived knowledge of diabetes-friendly foods (n=1)	2
Perceived knowledge of diabetes medications (n=1)	2





Sample Didactic Session: Financial Considerations

Conclusions

- The homeless community has many challenges that are not fully addressed by the healthcare system.
- Financial limitations, limited nutritional knowledge, and false perceptions of healthy behaviors may contribute to the prevalence of nutritional deficiencies and chronic health conditions in this population.
- This community-based participator research (CBPR) project aimed to create sustainable solutions toward a health disparity that is common in the homeless community: nutritional literacy.
- Through an educational and collaborative didactic series, we created a framework for nutrition that is both actionable and achievable with limited financial resources.
- Misconceptions surrounding nutrition and chronic disease states were common in this cohort. For example, only 45.5% of our cohort believed that heart disease is a potential consequence of diabetes, and as many as 45.5% believed that dental caries are a consequence of diabetes. Throughout the didactic series, we aimed to address common misconceptions, and adapt our cohort's knowledge base to better reflect that of evidence-based medicine.

The primary limitation of our study was that the individual members of each session changed on a weekly basis, due to movement in and out of LPCS. This prevented our assessment of post-intervention diabetes knowledge across the duration of our IAHD sessions. **Future studies** should focus on active nutritional planning with residents, exercise interventions for prevention of chronic health disease, and strategies to access subsidized healthy foods for homeless persons in Chicago.

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Assessing Health Needs of Middle Eastern Immigrants and Refugees

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UNIVERSITY OF ILLINOIS AT CHICAGO INTERPROFESSIONAL APPROACHES TO HEALTH DISPARITIES

Background

- **Problem:** Refugee and immigrant patients often have unmet chronic and acute health concerns.
- **Purpose:** To determine the healthcare needs of immigrant and refugee patients served by the Syrian Community Network (SCN), a non-profit organization in Chicago.
- **Context:** The project was conducted in partnership with SCN since strategies that integrate healthcare delivery methods along with community engagement and support was shown to be beneficial.
- **Summary of literature:** Research on healthcare needs of refugees have shown that mental health, infectious disease, chronic disease and oral health are the most common concerns among immigrant and refugee populations.

Methodology

- **Design:** Cross sectional survey study. A survey was designed to ascertain the healthcare needs of the SCN community and incorporated standardized screening tools to assess risks for diabetes, hypertension, depression, malnutrition and tobacco use.
- **Measures:** 5 main categories: Demographics, Diabetes and Nutrition, Depression and Mental health, Tobacco Use and Hypertension. All printed materials were available in English and Arabic.
- **Sample and setting:** Community dwelling adults attending a health fair where screening and educational materials were provided for participants.
- **Data Collection:** The survey was distributed in English and Arabic at a specially designed health fair where screening and educational materials were provided for participants. Volunteers fluent in Arabic were also present to assist with data collection and education.

Results

Figure 1

When was the last time you were seen by a physician/health care provider?

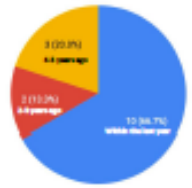

Figure 2

How difficult is it for you to get medical care when you feel you need it?

Figure 3

Do you currently have a health care provider?

Figure 4

Types of Payment Options Used by Participants for Medical Expenses

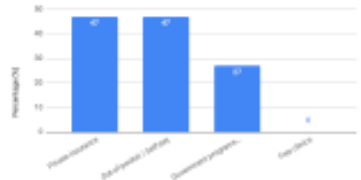

Table 1: Health Fair Demographics	
Variable	**Count (%)**
Gender (n=11)	
Male	7 (64%)
Female	4 (36%)
Age (n=11)	
Less than 40 years old	4 (36%)
40-49 years old	4 (36%)
50-59 years old	2 (18%)
60 years old or older	1 (9%)
Education (n=10)	
Less than high school degree or G.E.D.	3 (30%)
Completed high school or G.E.D.	5 (33%)
Some college or technical school, but no degree	1 (7%)
Associate or technical degree	2 (13%)
Bachelor's degree	0 (0%)
Master's degree	4 (27%)
Doctoral degree	0 (0%)
Marital Status (n=15)	
Married	10 (67%)
Single	3 (20%)
Divorced	1 (7%)
Widowed	1 (7%)

Table 2: Hypertension (n=10)	
Variable	**Count (%)**
History of Hypertension	
Yes	2 (20%)
No	7 (70%)
Prescribed Medicine for HTN	
Yes	2 (20%)
No	8 (80%)
Currently Taking Medications for HTN	
Yes	2 (20%)
No	7 (70%)
Prefer not to answer	1 (10%)
Blood Cholesterol Evaluated	
Yes	6 (60%)
No	4 (40%)
Time since blood cholesterol was checked	
Less than 1 year ago	2 (20%)
1 year - less than 2 years	3 (30%)
2 years - less than 5 years	0 (0%)
5 years or more	1 (10 %)
Don't know	3 (30%)
Not applicable	1 (10%)
Prescribed Medicine for Cholesterol	
Yes	4 (40%)
No	6 (60%)
Currently Taking Medications for Cholesterol	
Yes	1 (10%)
No	9 (90%)

Table 3: Diabetes	
Variable	**Count (%)**
Women diagnosed with Gestational Diabetes (n=4)	0 (0%)
Mother, father, sister, or brother with Diabetes (n=11)	8 (72%)
Physically Active (n=11)	7 (63%)
Diagnosed with HTN (n=11)	4 (46%)
ADA Diabetes Risk Score (n=11)	
Score 5 or higher	4 (46%)

Conclusions

We gained valuable insights about demographics and selected aspects of health of our health fair participants:

- ~50% did not currently have a physician/regular health care provider. Another half voiced having at least a little bit of difficulty finding medical care when needed.
- ~50% stated that they use out-of-pocket expenditures to pay for medical services. This can be used to inform services or classes directed at helping this patient population obtain care or coverage when needed.
- Few reported a history of the chronic diseases screened for. However, among individuals prescribed cholesterol medications, there was a lack of adherence regarding use.
- While we had screening tools and survey instruments for PHQ-2 and tobacco dependence screenings, not many participants elected to participate in these. This could reflect the cultural views on seeking care related to these health needs.

Limitations: Small sample size; missed recording certain health information (height, weight, BMI, etc.); could not perform a post-survey to assess changes in knowledge or behavior.

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