#### Health Disparities and the Role of Health Services Research in the Community

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#### Acknowledgements

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Presented at the Xavier University of Louisiana College of Pharmacy's 3<sup>rd</sup> Annual Health Disparities Conference – April 19-21, 2009

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#### Objectives

- Define Health Disparities in the Context of Health Care/Health Services
- Discuss the Factors Associated with Health Care/Health Services Disparities and Cultural Competence in the Community
- Compare Methodological Approaches to Health Services Research to address Health Disparities

#### Disparities Defined

- Disparities
  - The condition or fact of being unequal, as in age, rank, or degree; difference
- Health Disparities (Healthy People 2010)
  - Differences in disease prevalence or treatment by sex, race or ethnicity, sexual orientation, educational level, income, or geographic location

#### Health Care Disparities

- Differences that remain after taking into account patient needs and preferences and the availability of health care
- Still others associate health care disparities with adverse health outcomes, personal responsibility, or provider prejudice.

<sup>1</sup>Institute of Medicine, Committee on Understanding and Eliminating Racial and Ethnic Disparities in Health Care. Unequal Treatment: Confronting Racial and Ethnic Disparities in Health Care. Smedley BD, Stith AY, Nelson AR (Eds.). Washington, DC: National Academies Press; 2003.

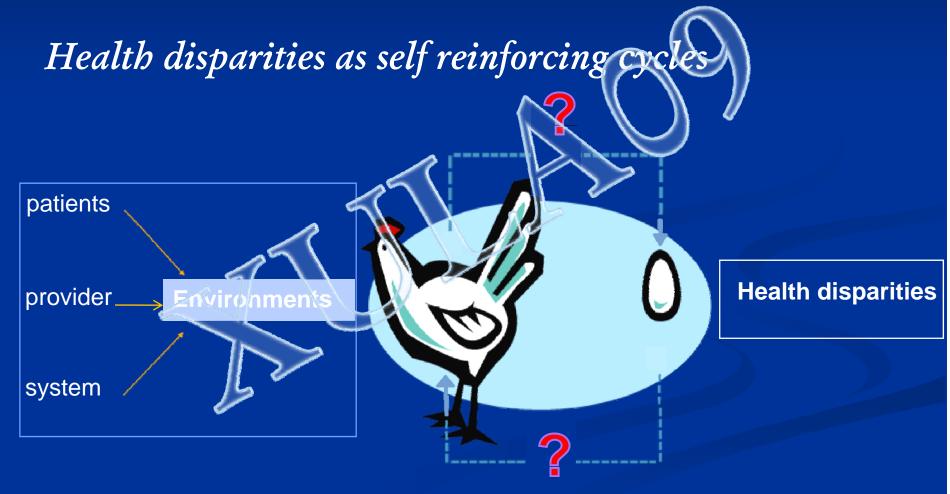
Q: Where should we target initiatives to address health/care disparities

A: At all levels

# Factors Contributing to Health Care/ Health Services Disparities

- Patient
- Provider
- Community
  - Access to Care
  - Environment
- Health System
  - Health Care Organizations
  - Payers
- Government

#### Health Disparities Model: Chicken and Egg Concept



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#### Cultural Competence

Cultural Competence

A set of congruent behaviors, attitudes and policies that come together as a system, agency or among professionals and enable that system, agency or those professionals to work effectively in cross-cultural situations.<sup>1</sup>

<sup>&</sup>lt;sup>1</sup> Cross TL, Bazron BJ, Dennis KW, Isaacs MR. *Towards a Culturally Competent System of Care: Vol. I.*Washington, DC: National Technical Assistance Center for Children's Mental Health, Georgetown University Child Development Center; 1989.

### How best to convey Cultural Competence?



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#### Cultural Competency

- Cultural knowledge
  - Familiar with selected cultural characteristics, history, values, belief systems, and behaviors of another ethnic group¹
- Cultural awareness
  - Develop sensitivity and understanding of another ethnic group<sup>1</sup>
- Cultural sensitivity
  - Understand that cultural differences and similarities exist, without assigning values to those cultural differences<sup>2</sup>

<sup>&</sup>lt;sup>1</sup> Adams DL (Ed.). (1995). Health issues for women of color: A cultural diversity perspective. Thousand Oaks: SAGE Publications. <sup>2</sup> Texas Department of Health, National Maternal and Child Health Resource Center on Cultural Competency. (1997). Journey towards cultural competency: Lessons learned. Vienna, VA: Maternal and Children's Health Bureau Clearinghouse.

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#### Health Services Research (HSR)

- Examines
  - How people get access to health care, how much care costs, and what happens to patients as a result of this care.
- The main goals of health services research
  - Identify the most effective ways to organize, manage, finance, and deliver high quality care; reduce medical errors; and improve patient safety.

### HSR Methodological Approaches

- Observation
- Documentation Review
- Interviews
- Focus Groups
- Surveys <</p>
- Case Studies
- Program Evaluation

### Overview of Methods to Collect Information

- Observation
  - Purpose
    - To gather information on how the program operates
  - Advantages
    - View operations of a program as they are actually occurring
  - Challenges
    - Expensive, difficult to interpret and categorize observations

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#### Women's Perspectives on Homelessness

- Addressed by Multiple Methods, including Participant-Observation
  - Increase in numbers of homeless since the 1980s
    - Social, Economic, Political problems
  - Number of homeless in US estimated as high as 3M
  - Fastest growing subgroups
    - Women
    - Children

#### Women's Perspectives on Homelessness

- Research Methods
  - This field research used ethnographic techniques to explore women's experiences of homelessness while living in a shelter. Data were collected by means of participant observation and in-depth, semi-structured interviews with 8 homeless women in a shelter.

#### Women's Perspectives on Homelessness

#### Results

- The constant comparative method of analysis identified themes of heightened awareness, guarding, identification of needs, and strategies for resolution.
- Women experience vulnerability throughout the homeless experience, but it is most intense when the women are disconnected from major sources of support.
- Vulnerability lessens as they begin to rebuild their lives.

### Overview of Methods to Collect Information

- Documentation Review
  - Purpose
    - Review of applications, finances, memos, minutes
  - Advantages
    - Doesn't interrupt program or client's routine
  - Challenges
    - Takes time and data may be incomplete

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### Revamped Scheduling Systems Promote Access, Reduce No-Shows, and Enhance Quality, Patient Satisfaction, & Revenues in PCP

- Research Problem addressed Document Review
  - Patients, especially non-acute patients, often wait weeks for appointments
  - Poor planning and systems are frequently responsible for these long waiting times
  - Inadequate reminder systems can lead to high no-show rates; many practices "overbook" patients, which can be counterproductive

### Revamped Scheduling Systems Promote Access, Reduce No-Shows, and Enhance Quality, Patient Satisfaction, & Revenues in PCP

- Research Methods
  - Using the "advanced access model of care," the primary care practice revamped
    - Patient flow
    - Scheduling
    - Follow-up processes
  - IT system was revamped to integrate patient reminder tools
    - Examples: patient flyers, reminder postcards, chart preps, encounter forms, and weekly tracking tools

### Revamped Scheduling Systems Promote Access, Reduce No-Shows, and Enhance Quality, Patient Satisfaction, & Revenues in PCP

- Results
  - Pre- and post-implementation comparison shows that the revised systems
    - Enhanced access to same-day appointments
    - Reduced no-shows
    - Increased provision of evidence-based care, patient satisfaction, patient volume, and revenues

### Overview of Methods to Collect Information

- Interviews
  - Purpose
    - To fully understand someone's experiences
  - Advantages
    - To get depth of information and develop a relationship with a client
  - Challenges
    - Takes time to analyze, costly, interviewer can bias responses

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### Post-Discharge Telephone Follow-up With Chronic Disease Patients Reduces Hospitalizations, Emergency Department Visits, and Costs

- Research Problem addressed by Interviews
  - Patients undergoing transitions after discharge often face deficiencies
    - Quality of their care
    - Education about self-management
    - Lack of an identified provider to monitor them
  - Deficiencies in transitional care lead to higher costs, medical errors, and poor compliance with medication regimens<sup>2,3</sup>

<sup>&</sup>lt;sup>1</sup> Coleman EA, Parry C, Chalmers S, et al. The care transitions intervention: results of a randomized controlled trial. Arch Intern Med. 2006;166(17):1822-8.

<sup>&</sup>lt;sup>2</sup> Boockvar K, Fishman E, Kyriacou CK, et al. Adverse events due to discontinuations in drug use and dose changes in patients transferred between acute and long-term care facilities. Arch Intern Med. 2004;164(5):545-50.

Moore C, Wisnivesky J, Williams S, et al. Medical errors related to the discontinuity of care from an inpatient to an outpatient setting. J Gen Intern Med.

2003-18(8): 646-51 at the Xavier University of Louisiana College of Pharmacy's 3rd Annual Health Disparities Conference – April 19-21, 2009
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### Post-Discharge Telephone Follow-up With Chronic Disease Patients Reduces Hospitalizations, Emergency Department Visits, and Costs

- Research Methods
  - Chronic care coordinators provide telephonebased
    - Identify care needs
    - Help patients develop self-management skills
    - Ensure access to needed clinical and social services.
  - Electronic medical records are updated after each interaction

### Post-Discharge Telephone Follow-up With Chronic Disease Patients Reduces Hospitalizations, Emergency Department Visits, and Costs

#### Results

- Pre-/post-analysis conducted by Kaiser Permanente Colorado Region's (KPCO) over a 12-month period
  - 2.4 % of coordination program enrollees hospitalized
  - 14.0 % of those receiving usual care (UC) hospitalized
- Only 7 % of enrollees who participated in the program visited the ED, compared to 16 % of those receiving UC
- None using program services were readmitted to the hospital within 60 days, vs. 13 % receiving UC

### Post-Discharge Telephone Follow-up With Chronic Disease Patients Reduces Hospitalizations, Emergency Department Visits, and Cost

- Results, cont'd
  - Significant cost savings
    - Annual savings of \$3 million due to reduced hospital/SNF readmissions
    - Another \$1 million due to reduced ED utilization.
  - The percentage of patients completing follow-up care increased by 75 percent after program implementation

### Post-Discharge Telephone Follow-up With Chronic Disease Patients Reduces Hospitalizations, Emergency Department Visits, and Cost

- Results cont'd
  - Medication costs increased for patients after they joined the program
    - Suggests increased medication compliance
    - Viewed as a positive trend by the staff
  - Surveys indicate that physician satisfaction with the program is consistently above 90 %, while patient/family satisfaction levels exceed 95 %

### Overview of Methods to Collect Information

- Focus Groups
  - Purpose
    - To explore a topic in depth, to understand common experiences and complaints
  - Advantages
    - Quick and reliable method to get common impressions in a short period of time
  - Challenges
    - Difficult to interpret, need a good facilitator, difficult to schedule 6-8 people

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# Mailed Reminders to Heart Attack Patients Improve Compliance With Beta-Blocker Medication Regimen

- Research Problem addressed by Focus
   Groups
  - Coronary heart disease (CHD) is the leading cause of death in the United States<sup>1</sup>
  - Only half of patients prescribed beta-blockers or angiotensin-converting enzyme (ACE) inhibitors still use them 2 years after MI<sup>1</sup>

<sup>1</sup> Choudhry NK, Winkelmayer WC. Medication adherence after myocardial infarction: a long way left to go. J Gen

Intern Med 2008 Feb;23(2):216-18.

# Mailed Reminders to Heart Attack Patients Improve Compliance With Beta-Blocker Medication Regimen

Research Methods

 Researchers convened focus groups made up of recent MI patients who had been dispensed a beta-blocker prescription

## Mailed Reminders to Heart Attack Patients Improve Compliance With Beta-Blocker Medication Regimen

- Results
  - Patients want letters that are personalized and written so that anyone, regardless of educational level, can understand them
  - Focus group members suggested that the following content be included in any message about the importance of compliance:
    - An explanation of why the drug is important in MI treatment
    - A discussion of the risks of not taking the drug
    - Information about side effects

### Overview of Methods to Collect Information

- Questionnaires, surveys, and checklists
  - Purpose
    - Easy method to get information in non-threatening manner
  - Advantages
    - Anonymous, easy to compare, many surveys are already in existence
  - Challenges
    - Wording can bias responses, might not get full response

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#### Culturally Competent Outreach Programs Increase Cervical Cancer Screening Among Chinese Women

- Research Problem addressed by Survey Instruments
  - California Health Interview Survey data<sup>1</sup> from 2003 for female adult Pap testing in the previous 3 years
    - 68 percent of Chinese women
    - 84 percent of white women
    - 87 percent of black women
    - 85 percent of Hispanic women

#### Culturally Competent Outreach Programs Increase Cervical Cancer Screening Among Chinese Women

- Results used to Develop Research Project
  - Culturally and linguistically competent interventions to increase cervical cancer screenings
  - The project sponsored two interventions at each site:
    - "low-intensity" direct mail intervention
    - "high-intensity" outreach worker intervention, both of which used Chinese-language materials to educate women and motivate them to seek Pap testing

### Overview of Methods to Collect Information

- Case Studies
  - Purpose
    - To fully understand client experiences and to conduct cross comparison of cases
  - Advantages
    - Depicts program's inputs, processes and results;
       powerful means to portray program to outsiders
  - Challenges
    - Timelconsuming; represents depth rather than breath

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# SARS and hospital priority setting: a qualitative case study and evaluation

- Research Problem addressed by Case Study
  - Priority setting is one of the most difficult issues facing hospitals because of funding restrictions and changing patient need
  - A deadly communicable disease outbreak, such as SARS in Toronto in 2003, amplifies the difficulties of hospital priority setting

# SARS and hospital priority setting: a qualitative case study and evaluation

- Research Methods
  - This study was conducted at a large tertiary hospital in Toronto, Canada. There were two data sources:
    - Over 200 key documents (e.g. emails, bulletins), and
    - 35 interviews with key informants.
  - Analysis used a modified thematic technique in three phases: open coding, axial coding, and evaluation

# SARS and hospital priority setting: a qualitative case study and evaluation

- Results
  - Priority setting decisions relating to
    - Staff and patients
    - Beds/rooms <
    - Clinical activity
    - Visitors
  - Hospital leadership made an effort to meet the conditions of 'accountability for reasonableness', but acknowledged that decision making was not ideal

### Overview of Methods to Collect Information

- Program Evaluation
  - Purpose
    - To evaluate the effectiveness of a program to an alternative program or "standard of care"
  - Advantages
    - Larger sample for analysis and repeated measures
  - Challenges
    - Recruitment and retention of subjects

#### Collaborative Care Model

- Academic Medicine:
  - Emphasis: closing the gaps by working together
  - Alliance: patients, providers, researchers, educators, communities, and health systems
- Cultivates continuous improvement in the health status of individuals and communities
  - Integrating education, research, and clinical care

Cohen JJ. "Closing the gaps by working together". Presented at the Association of American Medical Colleges annual meeting, October 24, 1999. Washington, DC Available at: http://www.aamc.org/newsroom/speeches/99amspee.htm.

### Example: U-01 Baltimore Cardiovascular Partnership

- Collaborative care alliance: academic medicine, pharmacy, and community-based health system
  - To improve provider and patient approaches
    - To treatment of hypertension and diabetes
    - Modifying physician related barriers to minority enrollment in clinical trials
    - Improving patient adherence to treatment plans.

#### Example: U-01 Baltimore Cardiovascular Partnership

- Research Design
  - Randomization at two levels
    - Physician intervention via CME
    - Patient intervention via nurse education program
  - Four categories of patients
- Evaluation of
  - clinical outcomes
  - cost effectiveness

### Example: U-01 Baltimore Cardiovascular Partnership

- Results to date
  - Improvement in HbA1c in diabetes cohort
  - Improvement in BP in hypertension cohort
  - Impact greater at level of patient
- Analysis ongoing

#### Conclusion

- Disparities in Health Care / Health Services cause Health Disparities
- Health Services Research Methods can Evaluate Causes and Solutions
- Methods vary in
  - Purpose
    - Exploratory vs. confirmatory
    - Correlation vs. causation
  - Complexity of study design
  - Time and finances