Objectives

• Provide an overview of health disparities and access to care
• Discuss methods of integrating health disparities concepts into pharmacy curriculum
• Evaluate opportunities to utilize students to improve health disparities
• Describe efforts of health disparities improvement into practice

Health Disparities: Definition

Differences in the incidence, prevalence, mortality, and burden of diseases and other adverse health conditions that exist among specific population groups

– Ethnicity or race
– Gender
– Socioeconomic status
– Geographic location

National Institute of Health, nih.gov
Evidence of Health Disparities

- Consistently found across a wide range of disease areas and clinical services
- Present even when clinical factors, such as stage of disease presentation, co-morbidities, age, and severity of disease are taken into account
- Found across a range of clinical settings, including public and private hospitals, teaching and non-teaching hospitals, etc.
- Disparities in care are associated with higher mortality among minorities

Distribution of U.S. Population by Race/Ethnicity, 2000 and 2050

<table>
<thead>
<tr>
<th>Race/Ethnicity</th>
<th>2000</th>
<th>2050</th>
</tr>
</thead>
<tbody>
<tr>
<td>White, Non-Hispanic</td>
<td>69.4%</td>
<td>50.1%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>12.6%</td>
<td>24.4%</td>
</tr>
<tr>
<td>African American</td>
<td>12.7%</td>
<td>14.6%</td>
</tr>
<tr>
<td>Asian</td>
<td>3.8%</td>
<td>8.0%</td>
</tr>
<tr>
<td>Other</td>
<td>2.5%</td>
<td>3.3%</td>
</tr>
</tbody>
</table>

Total = 282.1 million
Total = 419.9 million

Minority Prevalence in US

Health Disparities

<table>
<thead>
<tr>
<th>Group Compared with Whites</th>
<th>Measure</th>
<th>Relative Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>African Americans</td>
<td>New AIDS cases / 100,000</td>
<td>9.4</td>
</tr>
<tr>
<td></td>
<td>Diabetes amputations</td>
<td>2.3</td>
</tr>
<tr>
<td></td>
<td>Women not receiving prenatal care</td>
<td>1.6</td>
</tr>
<tr>
<td>Asians</td>
<td>Elderly not receiving pneumovax</td>
<td>1.6</td>
</tr>
<tr>
<td></td>
<td>Poor communication with provider</td>
<td>1.6</td>
</tr>
<tr>
<td>American Indians / Alaska Natives</td>
<td>Women not receiving prenatal care</td>
<td>2.1</td>
</tr>
<tr>
<td></td>
<td>Women &gt;40 without mammograms</td>
<td>1.8</td>
</tr>
<tr>
<td>Hispanics</td>
<td>New AIDS cases / 100,000</td>
<td>3.3</td>
</tr>
<tr>
<td></td>
<td>Women not receiving prenatal care</td>
<td>2.0</td>
</tr>
<tr>
<td></td>
<td>Poor communication with provider</td>
<td>2.0</td>
</tr>
</tbody>
</table>

Mortality data do not include residents of Puerto Rico, Guam, the U.S. Virgin Islands, or the Northern Mariana Islands. "Other" category includes American Indian/Alaska Native, Native Hawaiian or Other Pacific Islander, and individuals reporting "two or more races." African-American, Asian, and Other categories may be double-counted, 2000 data not adjusted to 2000 Census population. Data may not add to 100% due to rounding. AHRQ National Healthcare Disparities Report. AHRQ Publication No. 08-0041, 2008.
Impact on Health Disparities

- **Patient Related Factors**
  - Patient preferences
  - Treatment refusal
  - Care seeking behaviors and attitudes
  - Clinical appropriateness of care

- **Health Care Systems Related Factors**
  - Lack of interpretation and translation services
  - Time pressures on physicians
  - Geographic availability of health care institutions
  - Changes in the financing and delivery of health care services

- **Provider Related Factors**
  - Bias
  - Clinical uncertainty
  - Beliefs/stereotypes about the behavior or health of minority patients


Diversity Among U.S. Health Care Professions, 2000-2006

<table>
<thead>
<tr>
<th></th>
<th>Non-Hispanic White (%)</th>
<th>Non-Hispanic Black (%)</th>
<th>Hispanic (%)</th>
<th>Asian/ Pacific Islander (%)</th>
<th>American Indian/ Alaska Native (%)</th>
<th>Other/Multiracial (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S. Population Over Age 18 (2000)</td>
<td>69.1</td>
<td>12.1</td>
<td>12.5</td>
<td>3.7</td>
<td>0.7</td>
<td>1.8</td>
</tr>
<tr>
<td>Pharmacists (2000)</td>
<td>75.9</td>
<td>6.2</td>
<td>3.4</td>
<td>14.2</td>
<td>0.3</td>
<td>--</td>
</tr>
<tr>
<td>Physician Assistants (2000)</td>
<td>86.4</td>
<td>3.5</td>
<td>3.7</td>
<td>3.5</td>
<td>0.8</td>
<td>--</td>
</tr>
<tr>
<td>Registered Nurses (2004)</td>
<td>81.8</td>
<td>4.2</td>
<td>1.7</td>
<td>3.3</td>
<td>0.4</td>
<td>1.5</td>
</tr>
<tr>
<td>Dentists (2003)</td>
<td>88.5</td>
<td>1.9</td>
<td>3.3</td>
<td>7.1</td>
<td>0.2</td>
<td>2.4</td>
</tr>
</tbody>
</table>

Grumbeck K and Mendicute R. Disparities in human resources: addressing the lack of diversity in the health professions. Health Affairs 2008; 27(2): 413-422.

Addressing Health Disparities: National Recognition

- **Healthy People 2010**
  - 450 objectives related to health disparities based on:
    - Race/ethnicity
    - Gender
    - Education
    - Disability status

- U.S. Department of Health and Human Services
  - Six major areas of racial disparity identified are:
    - Infant mortality
    - Diabetes
    - Cardiovascular disease
    - HIV/AIDS
    - Immunizations
    - Cancer

Addressing Health Disparities: National Recognition

- **Agency of Healthcare Research and Quality (AHRQ)**
  - National Healthcare Disparities Report

- **Office of Secretary – Office of Minority Health**

- **Institute of Medicine**
  - Unequal Treatment: Confronting Racial and Ethnic Disparities in Healthcare

- **Center for Disease Control**
  - Office of Minority Health and Health Disparities
Addressing Health Disparities:
Pharmacy Recognition

• Center for the Advancement of Pharmaceutical Education (CAPE)
  – “demonstrate an awareness of health disparities and means of addressing the problem”

• Accreditation Council for Pharmacy Education (ACPE)
  – “graduates are able to develop, implement, and assess pharmacy care plans that address issues pertaining to culturally diversity and health literacy commonly associated with underserved populations”

Addressing Health Disparities:
The Challenges

• Increase health care providers’ awareness of disparities
• Promote the consistency and equity of care through the use of evidence-based guidelines
• Support the use of interpretation services in which community need exists
• Patient education programs should be implemented to increase patients’ knowledge of how to best access care and participate in treatment decisions
• Increase the proportion of underrepresented US racial and ethnic minorities among health professionals
• Integrate cross-cultural education into the training of all current and future health professionals

Unequal treatment: confronting racial and ethnic disparities in healthcare. Institute of Medicine, 2002

Objectives

• Provide an overview of health disparities and access to care
• Discuss methods of integrating health disparities concepts into pharmacy curriculum
• Evaluate opportunities to utilize students to improve health disparities
• Describe efforts of health disparities improvement into practice
Health Disparities Concepts Reminder

Differences in health conditions that exist
– Ethnicity or race
– Gender
– Socioeconomic status
  • Working poor, unemployed, homeless, children
– Geographic location
  • Environment

Mission and Location of Program

Contribute to the building of a better society for all through improved health status of individuals and the community.

Exercise-Stretch Your LEFT Brain

• What is your school location?
  – Urban
  – Rural
  – Both
• What population?
  – Gender
  – Race
• What is your school mission?
  • WRITE IT DOWN-SHOW YOUR NEIGHBOR

What do you want students to learn?

• Harlem’s Hazards
  A ‘toxic tour’ gave me an up-close look at environmental racism
• McDonald’s USA Nutrition Facts for Popular Menu Items
• Your guide to New York City’s Greenmarkets: Locations, hours and specialties
Exercise - Stretch your RIGHT brain

- Why are there disparities where you are?
  - Environment
  - Only can afford fast food
  - Attitudes
    - Men don't get colonoscopies, it's NOT manly
    - My daddy died in a hospital
- How do you start? Pick One thing, Pick One Partner
- WRITE IT DOWN-SHOW IT TO YOUR NEIGHBOR

Where in the Curriculum?

- Exercise 1 - Stand up-Clear all natural tendencies to resist change that may exist in your brain!
- Exercise 2 - Sit down-Write down the first place in the curriculum that comes to mind
- Show it to your neighbor! NO CHEATING

Integrated into Courses

- Therapeutics courses-special populations
- Electives
- Practice experience courses
- Pharmacy Administration
- Pharmaceutical sciences

Stand Alone Course

- Public Health III - Touro College
- Required
- Goal of Course: students to promote access to health care in general to minority, vulnerable and underserved populations and to improve outcomes.
- Touro College Outcomes: 2, 3, 8, 12
• Promoting health, wellness, and prevention of disease

• Knowledgeable of the US/Global Health Care systems to serve as advocates for patient and the profession

• Aware of cultural diversity and ethical practices

• Recognizing barriers to healthcare access in underserved populations

Course Objectives and Activities

• Examine Concepts
• Outline Causes
• Analyze reported differences in quality and outcomes
• Strategize for minimizing health disparities
• Demonstrate advocacy

Public Health Practice Courses

• Introductory Practice
  – Required
  – M-Th
  – Year 1-2

• Advocacy
• Health Disparities
• Prevention and Wellness

• APE Public Health I
  – Required
  – Full time Practice
  – Year 3

• APE Public Health II
  – Required
  – Full time Practice
  – Year 4

Objectives

• Provide an overview of health disparities and access to care
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Harding University College of Pharmacy

- Harding University mission:
- Harding University College of Pharmacy mission:
  - Located in Searcy Arkansas at the foothills of the Ozarks
  - August 25, 2009 – inaugural class begins

Student Demographics

<table>
<thead>
<tr>
<th></th>
<th>P1 class</th>
<th>P2 class</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average Age</td>
<td>25</td>
<td>25</td>
</tr>
<tr>
<td>Gender</td>
<td>F:27/M:37</td>
<td>F:31/M:30</td>
</tr>
<tr>
<td>African-American</td>
<td>7</td>
<td>6</td>
</tr>
<tr>
<td>Asian</td>
<td>14</td>
<td>17</td>
</tr>
<tr>
<td>Caucasian</td>
<td>43</td>
<td>36</td>
</tr>
<tr>
<td>Native American</td>
<td></td>
<td>2</td>
</tr>
</tbody>
</table>

Curriculum Map
Student Engagement to Improve Health Disparities

IPPE

| Patient Caring | Pharmacy Service Learning | Community Institutional Ambulatory care |

Gender
F = 51%  
M = 49%

Age Distribution

- 7% < 5 yo
- 14% > 65 yo

Median income in 2007: $38,239
37% live in non-metropolitan areas

Ark US

| Poor | 19.7% | 17.2% |
| Near-Poor | 24.1% | 18.6% |
| Poor Children | 28% | 23% |
| Poor Adults | 17% | 15% |
| Poor Elderly | 16% | 13% |
Collaborations

• Community outreach with medication reconciliation cards
• Charitable clinics
• Health Resources and Services Administration (HRSA) Patient Safety and Clinical Pharmacy Services Collaborative (PSPC) Rural community health centers
• County coalition
• Mission trips
• Health fairs

Charitable Clinics

• Christian Health Ministries
• River City Ministry
• Future Opportunities

Health Resources and Services Administration (HRSA) Patient Safety and Clinical Pharmacy Services Collaborative (PSPC)

• White River Rural Health Center
• 20 facilities in 10 counties surrounding Searcy
• Care for uninsured/underinsured
• 3 faculty at sites providing care: anticoagulation service, diabetes management, HIV management

White County Coalition

• Hometown Health Improvement (HHI) Coalition
  – Mission statement
  – Cereal drive
  – Body walk
  – Team walks
REACH
University of Utah School on Alcoholism and Other Drug Dependencies

Health Fairs
• Campus
• City
• County
• State

Objectives
• Provide an overview of health disparities and access to care
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Mississippi Delta Statistics

- Mississippi:
  - 4th most rural state in the nation
  - Over 1/2 of population lives in rural areas
- Mississippi Delta has the highest percentage of African Americans in the nation
  - National: 12% AA of total population
  - Mississippi: 36% AA of total population
  - Mississippi Delta: 60% AA of total population

Mississippi Statistics

- % obese adults: 1st
- % diabetes: 1st
- Number of adults who smoke cigarettes: 42nd
- Asthma-related disease among school age students: 50th
- Teen pregnancy: Highest
- Infant mortality: 49th

If the Delta were removed from Mississippi, most MS health statistics would become normative.
Delta Health Initiative

**Mission and Vision**

**Access/Quality Care**  **Health Education**  **Research**

**Founding Partners:**
- Delta State University
- MS State University
- MS Valley State University
- University of MS Medical Center
- Delta Council

**Associate Partners:**
- MS Primary Health Care Association (CHC)
- MS Hospital Association
- MS State Medical Association
- Area Health and Education Centers (AHEC)

**Funding**

- Health Resources and Services Administration (HRSA)
- Delta Health Alliance (DHA)
- School of Pharmacy
  - Department of Pharmacy Practice
  - Department of Pharmacy Administration
  - Center for Pharmaceutical Marketing and Management

Year 1: July 2008 – June 2009  $1,000,000  
Year 2: July 2009 – June 2010  $1,000,000

Delta Pharmacy Patient Care Management Project

**Overview**

**Purpose:**
To demonstrate how community pharmacists in the Mississippi Delta can impact clinical, economic, and humanistic outcomes through accessibility to Patient Care Management (PCM) services:
- Generalized MTM
- Specialized MTM (asthma, diabetes)

**Project Goals**

**Year 1**

- Improve medication use and health outcomes for the Medicaid population of Coahoma, Panola, and Yazoo counties, specifically those with asthma and diabetes
- Utilize Electronic Health Records supported by telemedicine to improve safety and adherence to pharmaceutical therapy
- Evaluate the efficacy of pharmacy patient care management (PCM) services on medication adherence and disease management
Project Participants

**CLARKSDALE**
- Medigap Pharmacy
  - Keith Waldrip, RPh
  - Val Soldevila, RPh
- Henderson Drug and Home Health

**BATESVILLE**
- Fred’s Pharmacy
  - Jenny Sullivan, RPh
  - Todd Johnson, RPh
  - Rebekah Gray, PharmD
- Saverex Pharmacy
  - Jerry Knotts, RPh
- Mettesave Pharmacy
  - Erik Broome, RPh
- Medicap Pharmacy
  - Andrea Smith, MD
- Lee Linder, MD
- Elizabeth Thomas, CFNP
- Robert Corkern, MD
- David Ball, MD

**YAZOO CITY**
- Webb’s Pharmacy
  - Donna Heidel, RPh
  - Frank Webb, RPh
- David Ball, MD
- Michael Baker, DO
Billing and Payment

CPT Codes:

<table>
<thead>
<tr>
<th>CODE</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>99605</td>
<td>MTM service(s) provided by a pharmacist to an individual patient during a</td>
</tr>
<tr>
<td></td>
<td>face-to-face encounter that involves an assessment and intervention if</td>
</tr>
<tr>
<td></td>
<td>provided; used to code the initial 15 minutes of an initial encounter with</td>
</tr>
<tr>
<td></td>
<td>a new patient.</td>
</tr>
<tr>
<td>99606</td>
<td>Initial 15 minutes with an established patient.</td>
</tr>
<tr>
<td>99607</td>
<td>Each additional 15 minutes of an initial or subsequent MTM encounter; list</td>
</tr>
<tr>
<td></td>
<td>separately in addition to code for primary services and in conjunction with</td>
</tr>
<tr>
<td></td>
<td>99605 or 99606.</td>
</tr>
</tbody>
</table>

Payment for MTM services is submitted using combinations of the new CPT codes.

Specialized Medication Therapy Management

- Diabetes and Asthma
- School of Pharmacy provides services
  ~1/2 day per week per pharmacy
- 55 patients currently enrolled

Pharmacy Training

- Increase the number of health providers in underserved region with health disparities
- Pharmacy students
  - Increase the number of Advanced Community Pharmacy Practice Experiences
- Pharmacy Residents
  - Establish a PGY-1 Community Pharmacy Residency Program

Delta Pharmacy Patient Care Management (PCM) Services Project

University of Mississippi
School of Pharmacy
Federal Funding Opportunities for Health Disparities Research

Department of Health and Human Services
- Office of Secretary - Office of Minority Health
- National Institutes of Health - National Center for Minority Health and Health Disparities HRSA
- Agency for Healthcare Research and Quality
- Health Resources and Services Administration

Additional Opportunities
- Health Care Reform
  - Health Disparities
  - Medication Therapy Management
- HRSA Patient Safety and Pharmacy Collaborative

Opportunities to Address Disparities
Feedback During Special Session
- Public Health required course
- Medication Safety required course
- Public Health APPE
- Mission Trips / Missions APPE
- IPPEs at Health Centers
- Community outreach programs in Medication Reconciliation and Patient Safety

Opportunities to Address Disparities
Feedback During Special Session
- Annual Cultural Diversity Day
- Student Case Conferences during APPEs
- Student volunteers to recruit minorities into the profession of pharmacy
- Health fairs
- Service Learning at charitable clinics
- Tobacco cessation program
- Partnering with social workers to aid homeless patients