Healthcare Disparities

- National Institute of Health
  - “Health Disparities are differences in the incidence, prevalence, mortality, and burden of diseases and other adverse health conditions that exist among specific population groups in the United States”

- Health and Human Services Agency
  - One of Healthy People 2010’s overarching goals is to eliminate health disparities.
Burden of Diabetes

- 6th leading cause of death in the year 2000
- Affects more than 20.8 million Americans
- Different types
  - Type 1 diabetes: “juvenile” or “insulin dependent”
  - Type 2 diabetes: “adult onset”
    - Accounts for 90-95% of diabetes cases
    - Risk factors: age, obesity, family history, history of gestational diabetes, race/ethnicity
- Gestational diabetes
  - Occurs more frequently in African Americans, Hispanic/Latino Americans, and American Indians
- Serious consequences/premature death
African Americans

- Face 2 in 5 risk for diabetes
- More than twice as likely to have diabetes compared to whites
- From 1980-2005: age adjusted prevalence of diagnosed diabetes
  - Doubled among black males
  - Increased 69% among black women
Hispanics/Latino Americans

- Hispanics born in the year 2000 face a 2 in 5 risk for diabetes
- More than twice as likely to have diabetes compared to whites
- From 1997-2005: age adjusted prevalence
  - Increased 16% among hispanic males
  - Increased 21% among hispanic females
American Indians/Alaska Natives

- American Indians aged 10-19 have the highest prevalence of type 2 diabetes
Complications

- Complications such as end-stage renal disease, retinopathy, and amputations among minorities is disproportionately high.
- Diabetic nephropathy, as well as kidney and liver failure, is three to seven times higher in African Americans, Mexican Americans, and Native Americans.
- Rates of amputations are two to four times higher than among Anglos.
Health Disparities: Race/Ethnicity & Diabetes

Prevalence of Persons with Diabetes Aged 18 Years and Older by Race/Ethnicity, 2007

<table>
<thead>
<tr>
<th>Race/Ethnicity</th>
<th>Percent (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>White/Non-Hispanic</td>
<td>4.50</td>
</tr>
<tr>
<td>Hispanic</td>
<td>7.70</td>
</tr>
<tr>
<td>Black/Non-Hispanic</td>
<td>10.30</td>
</tr>
<tr>
<td>Other race/Non-Hispanic</td>
<td>6.20</td>
</tr>
<tr>
<td>Multi-racial/Non-Hispanic</td>
<td>5.70</td>
</tr>
</tbody>
</table>

Source: Behavioral Risk Factor Surveillance System, Health Statistics Section, CDPHE
Health Disparities: Education & Diabetes

Prevalence of Persons with Diabetes Aged 18 Years and Older by Education Level, 2007

<table>
<thead>
<tr>
<th>Education Level</th>
<th>Percent (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than High School</td>
<td>7.70</td>
</tr>
<tr>
<td>H.S. Graduate/G.E.D</td>
<td>7.30</td>
</tr>
<tr>
<td>Some College</td>
<td>4.80</td>
</tr>
<tr>
<td>College Graduate</td>
<td>3.80</td>
</tr>
</tbody>
</table>

Source: Behavioral Risk Factor Surveillance System, Health Statistics Section, CDPHE
Health Disparities: Income & Diabetes

Prevalence of Persons with Diabetes Aged 18 Years and Older by Annual Household Income, 2007

Source: Behavioral Risk Factor Surveillance System, Health Statistics Section, CDPHE
Incidence of Diabetes Among Youth

Rate of new cases of type 1 and type 2 diabetes among youth aged <20 years, by race/ethnicity, 2002-2003

NHW=Non-Hispanic whites; AA=African Americans; H=Hispanics; API=Asians/Pacific Islanders; AI=American Indians
No Doctor Visit in Past Year for Nonelderly Adults by Race/Ethnicity and Insurance Status, 2005-2006

![Bar chart showing no doctor visit data by race/ethnicity and insurance status.](chart.png)

- **White, Non-Hispanic**:
  - Insured: 39%
  - Uninsured: 21%
- **Hispanic**:
  - Insured: 53%
  - Uninsured: 14%
- **African American**:
  - Insured: 40%
  - Uninsured: 13%
- **American Indian/Alaska Native**:
  - Insured: 31%
  - Uninsured: 13%
- **Asian and NHPI**:
  - Insured: 48%
  - Uninsured: 20%
- **Two or More Races**:
  - Insured: 45%
  - Uninsured: 14%

**SOURCE:** Kaiser Family Foundation and Urban Institute analysis of the National Health Interview Survey, 2005 and 2006, two-year pooled data.
Role of Health Insurance in Explaining Racial/Ethnic Gap in Having a Regular Source of Care

White-Hispanic Gap: 15.7% *

<table>
<thead>
<tr>
<th>Health Insurance</th>
<th>Income</th>
<th>Other**</th>
<th>Unexplained</th>
</tr>
</thead>
<tbody>
<tr>
<td>20%</td>
<td>16%</td>
<td>64%</td>
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</table>

White-African American Gap: 5.4%

<table>
<thead>
<tr>
<th>Health Insurance</th>
<th>Income</th>
<th>Other**</th>
<th>Unexplained</th>
</tr>
</thead>
<tbody>
<tr>
<td>42%</td>
<td>17%</td>
<td>39%</td>
<td>2%</td>
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</tbody>
</table>

*Researchers did not separate income from other personal socio-economic factors
**Other refers to local area demographics and health care system factors

<table>
<thead>
<tr>
<th></th>
<th>Improving</th>
<th>Same</th>
<th>Worsening</th>
</tr>
</thead>
<tbody>
<tr>
<td>Black vs. White (n=17)</td>
<td>65%</td>
<td>18%</td>
<td>18%</td>
</tr>
<tr>
<td>Asian and Pacific Islander vs. White (n=17)</td>
<td>47%</td>
<td>35%</td>
<td>18%</td>
</tr>
<tr>
<td>American Indian/Alaska Native vs. White (n=17)</td>
<td>41%</td>
<td>29%</td>
<td>18%</td>
</tr>
<tr>
<td>Hispanic vs. Non-Hispanic White (n=17)</td>
<td>53%</td>
<td>29%</td>
<td>18%</td>
</tr>
</tbody>
</table>

NOTES: “Improving” means disparity is becoming smaller over time; “worsening” means disparity becoming larger over time. Data on all measures are not available for all groups; “n” refers to the number of measures on which the groups were compared. Totals may not add to 100% due to rounding. Time period differs by measure and includes oldest and newest years of available data.

What is the Goal?

- Reduce complication rate and number of deaths
- Multidisciplinary approach
  - Increase awareness
  - Increase patient education
  - Encourage lifestyle modification
  - Regular office visits
Delivery of Culturally Competent Care

- Requires practitioner competencies in specific areas:
  - cultural knowledge (beliefs and values)
  - Dismiss belief that minorities do not care about their health
  - specific skills in intercultural communication
  - tripartite cultural assessment
  - selecting among levels of intensity of cultural interventions (neutral, sensitive, innovative, or transformative)
  - adapting patient education
  - developing community partnerships.
Beliefs as Barriers

- Patients may not regularly participate in health screenings, including beliefs, priorities, and access.
- Lack of knowledge about services, transportation, financial issues, and acceptability of services.
- Patients may not understand diabetes is an illness with significant complications.
Reducing Disparity

- Awareness and sensitivity of cultural diversity
- Appreciation of different religious practices
- Physician education of healthcare disparities
- Education of family members as well as patients
- Assistance in navigating the healthcare system
What should providers do?

• Select and partner with interpreters appropriately.
• Adapt communication/interaction patterns
  • Use appropriate strategies to demonstrate respect
  • Use indirect (rather than direct) communication when necessary
• Perform targeted cultural assessments (for defining problems, modifying/constructing interventions, and establishing participating outcome goals)
What should providers do?

- Modify diabetes education programs.
- Determine patients’ preferred learning style: visual, auditory, experiential; and use appropriate teaching modality (talking circles, one-on-one, didactic, lay model).
- Assess patients’ reading level.
- Evaluate reading level of patient education materials.
- Use cultural themes, metaphors, or folktales to deliver health messages.
What should providers do?

• Elicit information about patients’ logic of noncompliance and involve patients in problem solving to devise strategies to address patients’ issues.
• Determine applicability of a strategy demonstrated effective with one particular population to a particular individual within that population or to a different population.
• Work in partnership with ethnic communities.
• Assess personal and agency level of cultural competence and take actions to address deficiencies.
What should providers do?

- Practitioners often indicate that these skills are not feasible because they lack time, resources, and/or information (and sometimes motivation) to comply with these practice standards.
- Yet they fail to recognize that these are the same reasons offered by patients who have difficulties managing a recommended therapeutic regimen.
Intervention Strategies

- Increase early screening and early treatment
- Improve care for control of diabetes
- Treat major complications:
  - Regular eye exams
  - Regular foot exams
- Clinical trials
Intervention Strategies

- Routine office visits to include
  - Eye and foot examinations
  - Bloodwork to include HgbA1C, lipid panel, renal function, etc
  - Blood pressure control
  - Blood glucose control
- Patient education
  - Awareness of diabetes and its complications
  - Importance of blood glucose control
  - Self screening (foot, eye, blood glucose)
  - Lifestyle modification: diet and exercise, smoking, alcohol
Programs and Initiatives

- Project DIRECT
- National Diabetes Education Program (NDEP)
- SEARCH for Diabetes in Youth Study
Project DIRECT

- Multi-year community diabetes demonstration project
- Funded primarily by the CDC
- Focused on reducing the burden of diabetes and its complications in the African American community
- Provides insight into preventive care services and self-care behaviors
- Findings:
  - Close to half have never received any from of diabetes education
  - Less than half do not have annual A1C examinations
  - Most are sedentary
  - More than half monitor their blood glucose once daily or less
National Diabetes Education Program (NDEP)

- Co-sponsored CDC and NIH initiative
- Promote early diagnosis of diabetes
- Prevent/delay onset of diabetes
- Improve treatment and outcomes for African Americans, Hispanics/Latinos, American Indians, Alaska Natives, and other high risk groups
SEARCH for Diabetes in Youth Study

- Address increasing incidence of type 1 and type 2 diabetes in youth
- Funded by CDC and other agencies
- Conducted in 6 geographically dispersed US populations encompassing ethnic diversity
- Prime objective: identify magnitude/trends of diabetes in youth, including African Americans and Hispanics/Latinos
- Findings:
  - African American youth had highest incidence rates
  - 1 in 500 Hispanic youths have diabetes
Self Management

- Diabetes education
- Regular office visits
- Glucose monitoring
- Lifestyle modification
- Support groups
References

- Center for Disease Control: Office of Minority Health and Health Disparities