ETHNOGERIATRIC CURRICULUM: MODULE TWO
PATTERNS OF HEALTH RISK

DESCRIPTION
Module Two presents an overview of the available information on the risk of
health conditions and death among elders from diverse ethnic backgrounds. Most of
the data are based on comparisons with the majority white older American or averages
for all older Americans. The range of ethnic differences in social support networks is
also included.

OBJECTIVES
After completion of this module, learners with be able to:
1) Identify the major sources of data on ethnogeriatric epidemiology and the gaps in
available information.
2) Describe the major differences in mortality rates between elders from different ethnic
populations in the U.S.
3) List the health conditions for which there are significant differences in risk between
specific groups of ethnic elders and the average for older Americans.
4) Describe the ethnic specific patterns of social support for frail and disabled elders.

CONTENT OUTLINE
I. Sources of data on older Americans from specific ethnic populations and their
   limitations
   A. Mortality
      1. Analyses of vital statistics data
         a. Available only for largest federally designated ethnic/racial categories,
            primarily black and white
         b. Mortality data is based on death certificates, which have been found to be
            marginally accurate as to cause of death
      2. Local or regional longitudinal data
         a. Only for specific ethnic populations included in the studies
         b. Different results from different studies
   B. Morbidity, functional status, and social support
      1. National data sets such as Health Interview Surveys, HANES, Medicare
         a. Smaller populations have too few subjects in the samples to be reported.
         b. Ethnic groups (e.g., Mexican American) within federally designated
categories (e.g., Hispanic) are frequently not identified
      2. Regional, state and local data from surveys, longitudinal studies,
epidemiological catchment area studies, hospital discharge data, and
Medicare records; dissemination through scientific publications and
academic centers
         a. Different study designs, different definitions of ethnic populations, different
indicators of health status, different exclusion criteria, and different results
   C. Statistical differences are not always meaningful differences
D. Within each ethnic category and group, health status and mortality rates vary by education and income level, access to care, lifestyle, and sometimes by level of acculturation to the American culture.

II. Mortality
A. Life Expectancy
   1. Latest available data on average life expectancy for major federally designated population categories
      a. Examples: 1997 Data on U.S. Average Life Expectancy in Years
         | At Birth | At Age 65 | At Age 85 |
         | All females | 79.4 | 19.2 | 6.6 |
         | All males | 73.6 | 15.9 | 5.5 |
         | Black females | 74.7 | 17.6 | 6.7 |
         | Black males | 67.2 | 14.2 | 5.7 |
         | White females | 79.9 | 19.3 | 6.6 |
         | White males | 74.3 | 16.0 | 5.4 |
      (Source: Kramerow et al., 1999)
      b. Japanese American men in Hawaii have been found to have longer life expectancy than any other known population. They have, for example, longer life expectancy than men living in Japan, which has the longest of any major country (Curb et al., 1990).
      c. Indian Health Service conservative estimates for American Indians living on reservations were that in 1991 the average life expectancy at birth was 70.3 years, which represented an increase of 19.2 years since 1940 when the life expectancy was reported as 51 (John, 1997).
   2. Mortality crossover: In the 1970s and 1980s data indicated that shorter life expectancy among blacks compared to whites at younger ages changed at older ages (75 - 85) to longer life expectancy, but the phenomenon is now a matter of debate and evident only at the latest ages if at all. A few studies have found evidence of similar crossovers among Hispanic and American Indian (Navajo) populations (Manton & Stallard, 1997).
B. Available information on disparities in mortality for individual diseases among different ethnic populations
   (See Table 2-1)
Table 2-1. Five Leading Causes of Death in U. S. Adults Age 65+ by Sex, Race, and Hispanic Origin, 1997
Rates per 100,000 Resident Population

(Table developed by Veronica Scott, MD, MPH)

<table>
<thead>
<tr>
<th>CAUSE OF DEATH</th>
<th>AGE</th>
<th>WHITE NON-HISPANIC MALES</th>
<th>WHITE NON-HISPANIC FEMALES</th>
<th>BLACK NON-HISPANIC MALES</th>
<th>BLACK NON-HISPANIC FEMALES</th>
<th>HISPANIC MALES</th>
<th>HISPANIC FEMALES</th>
<th>ASIAN/ PACIFIC ISLANDER MALES</th>
<th>ASIAN/ PACIFIC ISLANDER FEMALES</th>
<th>AMERICAN INDIAN/ ALASKA NATIVE MALES</th>
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<tr>
<td></td>
<td>65-74</td>
<td>75-84</td>
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<td>65-74</td>
<td>75-84</td>
<td>85 and over</td>
<td>65-74</td>
<td>75-84</td>
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<td>Diseases of Heart: Ischemic Heart Disease</td>
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<td>500.7</td>
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<td>871.6</td>
<td>725.7</td>
<td>391.9</td>
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<td>272.8</td>
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<td>1,595.9</td>
<td>2,641.6</td>
<td>2,030.5</td>
<td>1,688.6</td>
<td>1,102.4</td>
<td>1,534.8</td>
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<td>6,108.0</td>
<td>5,538.7</td>
<td>5,542.5</td>
<td>4,078.6</td>
<td>3,748.7</td>
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<td>3,326.2</td>
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<td>Malignant Neoplasms Respiratory**</td>
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<td>414.2</td>
<td>216.8</td>
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<td>206.6</td>
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<td>68.2</td>
<td>202.4</td>
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<td>559.1</td>
<td>264.2</td>
<td>693.3</td>
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<td>Breast**</td>
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<td>117.7</td>
<td>52.9</td>
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<td>145.3</td>
<td>170.7</td>
<td>81.4</td>
<td>77.2</td>
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<td>86.2</td>
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<td>568.2</td>
<td>242.3</td>
<td>488.8</td>
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</table>

* Based on fewer than 20 deaths. ** Females only.
1. Excess mortality: the difference between the number of deaths actually observed in the minority population and number of deaths that would have occurred in that group if both minority and non-minority populations had the same age- and sex-specific death rates.
   a. Higher mortality for coronary heart disease and stroke account for 24% of the excess mortality in black males, 41% in black females.
   b. Black males have a greater likelihood of dying from cancer than any other
   c. Some data indicate 45% higher heart disease mortality among older Puerto Rican women in the U.S. than older Anglo women, but not for Puerto Rican men; Cuban- and Mexican-born elders had lower rates of heart disease mortality than Anglo elders (Villa et al, 1993).
   d. Mortality rates for cancer of the cervix among Mexican-born females in the U.S. was found to be twice as high as that of Anglo females; stomach and liver cancer were higher for both Mexican born males and females, but all other cancers showed lower cancer mortality (Villa, et al., 1993.)
   e. Japanese Americans, Chinese Americans, and Filipino Americans have lower age-adjusted death rates from all causes than Whites, Blacks, or American Indians (McBride, Morioka-Douglas, & Yeo).
   f. Excess deaths have been reported among older American Indians for tuberculosis, diabetes, pneumonia, and cirrhosis (John, 1997; MCase & Cuellar, 1994).

III. Morbidity
   A. Among elders from the populations studied other than non-Hispanic white, data indicate that in many cases disease states tend to be more advanced by the time they are discovered clinically.
   B. In some immigrant populations, rates of certain cancers and cardiovascular disease increased with the time in the U.S.
   C. Examples of disparities in chronic conditions by ethnic population other than those reported in the Table 2-1 on mortality
   1. Among persons aged 70 and over, non Hispanic black and Mexican Americans had significantly higher levels of diabetes than non-Hispanic white elders. Elders from some American Indian tribes have the highest rates of diabetes among any populations. Some studies have also found higher rates of diabetes among Japanese American, Chinese American, and Filipino American elders than among U.S. elders as a whole (Hazuda & Espino, 1997; Kramer, 1997; Kramerow et al., 1999; McCabe & Cuellar, (1994); McBride et al., 1996).
   2. Non-Hispanic black elders were 1.5 times as likely to report hypertension as non-Hispanic whites (Kramerow et al., 1999).
   3. Osteoporosis and hip fracture are more common in non-Hispanic white women than in non-Hispanic black or Hispanic women. Studies of post-menopausal Asian women in the U.S. have found lower rates of hip fracture but similar bone density as non-Hispanic white women (Kagawa-Singer, Hikoyeda, & Tanjasiri, 1997; Richardson, 1996; Villa et al., 1993).
IV. Functional Status  
A. Data on various measures of functional status have consistently found that Hispanic elders in the U.S. report greater activity limitations than their Anglo counterparts. Among older Hispanics, Puerto Ricans report more limitations than Mexican and Cuban Americans (Hazudo & Espino, 1997; Villa et al., 1993).  
B. Studies of functional status and disability among older African Americans have generally found higher rates of activity limitation than among their white counterparts. There is considerable variation by socio-economic status, however, and some older cohorts report less limitation than younger ones (Clark & Gibson, 1997; Richardson, 1996).  
C. More than half (59%) of American Indians over 65 reported one or more activity limitation in 1985, the highest of any ethnic population (McCabe & Cuellar, 1993).  
D. Almost no data are available on the functional status of elders from ethnic groups in the Asian/Pacific Islander category.

V. Social Support  
A. While most indicators of family support indicate that, in general, elders from ethnic populations other than white receive higher levels of support from members of their immediate families, within each ethnic group there are isolated elders with weak or no family ties.  
B. Elders play important roles within their families in many ethnic communities, providing support through child care and financial assistance.  
C. Assistance of extended family members in caring for frail elders is common among many ethnic communities. Examples are families from African American, Mexican American, Filipino, and Vietnamese backgrounds.  
D. Non-family support has been found to be common among African Americans in cases where fictive kin relationships are strong and, in many cases, where elders are members of cohesive church communities. In ethnic groups where clan relationships are strong, such as Hmong and some American Indian communities, clan members can also be a strong source of support.
INSTRUCTIONAL STRATEGIES
Assigned readings, lecture, and discussion can be augmented with the following assignments:
A. Downloading the latest data on life expectancy and mortality rates for elders from different ethnic populations from websites;
B. Interviewing elders from different ethnic backgrounds other than the students’ own on the help the elders give, receive, and expect from their family members (See Appendix C for Guidelines for Interviewing);
C. Presenting the results of the interviews in class to compare and discuss similarities and differences;
D. Group projects that address individual disease risks, such as diabetes, by researching the ethnic specific incidence and prevalence, risks of complication by ethnic group, and interviews with ethnic elders who have experienced the disease.

EVALUATION
Health status information in this module lends itself to objective questions to evaluate students’ retention of the information. Essay questions can be used to evaluate their understanding of the sources and limitations of the data. Group projects and individual reports mentioned above can also be used in the evaluation of student performance.

Evaluation Strategies to Use for Specific Learning Objectives

<table>
<thead>
<tr>
<th>Learning Objectives</th>
<th>Suggested Evaluation Strategies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identify the major sources of data on ethnogeriatric epidemiology and the gaps in available information.</td>
<td>Objective test</td>
</tr>
<tr>
<td></td>
<td>Project A*</td>
</tr>
<tr>
<td>Describe the major differences in mortality rates between elders from different ethnic populations in the U.S.</td>
<td>Objective Test</td>
</tr>
<tr>
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<td>Essay Question</td>
</tr>
<tr>
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<td>Projects A &amp; D*</td>
</tr>
<tr>
<td>List the health conditions for which there are significant differences in risk between specific groups of ethnic elders and the average for older Americans</td>
<td>Objective Test</td>
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<td>Essay Question</td>
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<tr>
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<td>Project A*</td>
</tr>
<tr>
<td>Describe the ethnic specific patterns of social support for frail and disabled elders.</td>
<td>Projects B &amp; C*</td>
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<td>Essay Question</td>
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</table>

*Letters refer to the specific projects listed above in the Instructional Strategies
REFERENCES AND RESOURCES
Websites:
[http://www.cdc.gov/nchswww/fastats](http://www.cdc.gov/nchswww/fastats) National Center for Health Statistics