How Common is a Disease in a Population?—Two Measures

**Prevalence**
- Number or percent of the population who have been diagnosed with the disease at one point in time
- Gives an idea of the "burden" of the disease

**Incidence**
- Number or rate of new cases of a disease during a specific time period.
- Gives an idea of the rate of change over time
- Can compare time periods or populations

Systematic Review of Dementia Prevalence and Incidence of Dementia in United States Race/Ethnic Populations

Kala Mehta and Gwen Yeo
Alzheimer's & Dementia
January 2017

Search
- 1229 studies identified through PubMed reviewed

Database
- 114 with appropriate recruitment and diagnostic methods were included in database

Analysis
- Comparisons very difficult
- Different ages, methodologies, reporting styles
What Do We Know About Dementia Prevalence in Race/Ethnic Populations?

African Americans

• (10 of the 19 studies)
  ~ ages of samples from 40+ to 100+
  ~ prevalence ranges from 0.01% to 68%
  ~ four reported age ≥65: 7%, 8%, 16%, 22%
  ~ four reported age ≥ 85: 18%, 23%, 32%, 59%

In the 8 studies who also had a non-Latino white comparison group, all but one showed lower rates for whites.

Latino/Hispanic Prevalence

• Mexican American (SALSA)
  ≥ 60: 5%; ≥85: 31%
• Puerto Rican (PR Veterans)
  ≥ 65: 13%
• Cuban American (women)
  ≥ 65: 13%
• Caribbean Hispanic (No. Manhattan Dominican, PR, & Cuban)
  65-74: 8%
  75-84: 28%
  ≥ 85: 63%

Asian American Prevalence

Japanese Americans
• Honolulu Heart Study/HAAS Men
  ≥ 65: 8%; ≥85: 33%
• Kame Study (Seattle area)
  ≥ 65: 6%

Korean American MASK-MD
• (screening data only) ≥ 60: 7%

NO DATA AVAILABLE ON OTHER ASIAN AMERICAN POPULATIONS

American Indian Prevalence

• NO RELIABLE REPORTS AMONG AMERICAN INDIAN POPULATIONS

Pacific Islander Prevalence

• Chamorros (indigenous population of Guam)
  ≥ 65: 12% (9% Guam Dementia)
What Did We Learn?

- **There are major gaps in the evidence for rates of prevalence or incidence among different race/ethnic populations.**
  - American Indians
  - Most Asian American populations
  - Chinese, Filipino, Asian Indian, Vietnamese
  - Smaller Asian groups
  - Most Pacific Islander populations

What Did We Learn?

- **It is impossible to compare results of studies fairly within or across population groups** because of differences in:
  - Age of subjects
  - Recruitment and inclusion strategies
  - Diagnostic methods
  - How results are reported (by age or gender categories only)

**Result:** Disparities cannot accurately be documented
What Did We Learn?

_It is important to disaggregate data on ethnic populations within the large race/ethnic minority categories used by the Census._

For example, the lowest and highest rates are found among populations classified as Hispanic/Latino. If lumped together, the results are misleading.

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>Incidence Rate per 1000 person/years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asian American</td>
<td>15.2</td>
</tr>
<tr>
<td>NL White</td>
<td>19.4</td>
</tr>
<tr>
<td>Pacific Islander</td>
<td>19.6</td>
</tr>
<tr>
<td>Latino</td>
<td>19.6</td>
</tr>
<tr>
<td>American Indian/AN</td>
<td>22.2</td>
</tr>
<tr>
<td>African American</td>
<td>26.6</td>
</tr>
</tbody>
</table>

Northern CA Kaiser Permanente Multi-Ethnic Incidence Study, 2016

Followed 274,000 patients ≥60 for 14 years. Age adjusted dementia incidence rates per 1000 person/years were:

Mayeda et al.

Recommendations to Increase our Knowledge about Disparities

- Develop standardized protocol for race/ethnic epidemiological research
- Prioritize funding for ethnic specific populations with little or no data
- Require inclusion of target community members in research team

NEXT STEPS
Questions?

Gweneyo@stanford.edu