Today’s Objectives

- Understand how frequency (prevalence) data and data on characteristics (variables) related to social determinants of health are typically represented in graphs and charts.

- Understand the basics of reading graphs and charts from government agencies and other research organizations.

- Learn how to draw accurate conclusions from charts and graphs, and express them in writing.

- Understand the power of data to build awareness and meaningfully engage, convince, and involve others.

- Design ways for communicating conclusions from data to colleagues and community members.
Today's Agenda

- Introduction and Agenda Review
- Reasons for presenting information about health disparities and social determinants of health to others
- Challenges in communicating with others
- Defining Health Disparities and SDOH
- Some Basics on Reading Tables/Charts/Graphs
- Drawing Conclusions from Data
- Application and Discussion
- Writing Conclusions
- Communicating with Others
- Wrap-up

Health disparities and social determinants of health:

*Reasons for Communicating Conclusions from Data to Others*

1. 

2. 

3.
Drawing Conclusions from Data and Presenting them to Others:

**CHALLENGES YOU FACE**

1.

2.

3.

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**WHAT DO WE MEAN BY HEALTH DISPARITIES AND THE SOCIAL DETERMINANTS OF HEALTH?**

Heath Disparities/Inequities between Groups of People

- Diabetes
- Heart Disease
- Lung Cancer
- Death among 15-24 yr olds

Social Determinants

- Age
- Race
- Gender
- Geographic Location
- Gender Orientation
- Other Conditions of Living
Two Types of Data

**Health Disparity/Inequity = DEPENDENT VARIABLE**
- Prevalence Data for Health Conditions
  - Frequencies, Counts
  - Rates, Percentages
- Other Variable related to being healthy
  - Access to health care
  - Food insecurity
  - Neighborhood walkability

**Social Determinant of Health = INDEPENDENT VARIABLE**
- Age
- Race
- Gender
- Geographic Location
- Religion
- SES
- Disability
- Sexual Orientation
- Language

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**TABLES**

- Present numbers and/or text in rows and columns
- Convenient for presenting a large quantity of data
- Reader must translate one number into a relationship with every other number
- Not well suited for showing trends or directions in the data
- Most useful for providing significant amount of information with great precision in a very small space
- You can reach conclusions faster with graphs than you can using a table or a written description of the data
Disparity Ratio and Grades:

- A = 0.0–0.5
- B = 0.6–1.0
- C = 1.1–1.9
- D = 2.0–2.9
- F = 3.0 or greater

### Social and Economic Well-Being

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<thead>
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Disparity Ratio and Grades:

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### Pie Chart

Physician Opinion about Need for Translators in their Community Clinic

- Agree 64%
- Disagree 31%
- Don't Know 9%

- Simplest
- Shows how a whole is divided into portions
- Shows relationships to the whole and to the other portions
- Can be extended to present additional information
Bar Graphs

- Show categories of data using horizontal or vertical bars
- Relatively easy to understand
- Vertical y-axis shows the frequency of data in increments (dependent variable)
- Horizontal x-axis categorizes one or more social determinants (independent variables)

Figure 6: Annual rate of HIV Infection (per 100,000), averaged across 2005-2009

Data Note: Rates are averaged across a five-year period (2005-2009). Rates are not age adjusted. Source: Oregon Public Health Division Reportable Disease Data.

Bar Graphs

- Example with x- and y-axes “flipped”

Ability to speak English among those speaking a language other than English, 2000

Language Group
- Spanish
- Asian
- Other Indo-European
- Speak English very well
- Speak English less than very well
Line Graphs

- Used to show how one variable changes in relationship to changes in another variable.

- A grouped line graph compares a trend with on or more other trends, and shows if its rate of change is increasing, decreasing, fluctuating, or remaining constant.

Figure 3: Prevalence of Oregon Births with Low Birth Weights by Race and Ethnicity, 1999-2006

Guidelines for Reading Published Tables, Charts, & Graphs

1. Read the title to determine what variables are being displayed.

2. Read the horizontal and vertical dimensions to determine how each variable is being reported (counts, percentages, means, rates, ratios, categories).

3. For charts and graphs with a key (typically within a box), look at it for the explanation of symbols and colors being used.

4. To check your understanding, review any conclusions presented with the data & identify the specific data in the table/chart/graph from which they were drawn.

5. Focusing on the variables of interest to you, formulate conclusions from the data:
   1. Look for the data that illustrates the disparity.
   2. Compare the group with the best health status with those that have worse health status.
   3. Describe the social determinants that contribute to the disparity.

6. Review your conclusions with others.
1. Compared to other groups, which risk factors are Black women most likely to have?

2. Which group shows the greatest difference from Whites in terms of being overweight?
1. Which group(s) was/were the most likely to have a personal doctor?

2. Fewer than half of which group(s) had a mammogram in the past two years?

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1. Which groups were the most and least likely to have had inadequate prenatal care?

2. On average, what is the disparity (in percentage points) between minority women and White women in terms of having received first trimester prenatal?
1. Which social determinants are the most problematic for Hispanic women?

2. Which groups are both more likely to raise families with no husband present, and to live in poverty, compared with White women?

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**Writing Conclusions**

- Express the answer to one of your group’s questions in writing
Guidelines for Communicating with Others

1. Aim for the simplest presentation that will handle the facts, and permit stakeholder groups to understand the health disparities and their causes.

2. Determine the central finding(s) or piece(s) of information that you want to communicate.

3. Think creatively about how to organize the findings into a straightforward and understandable format.

4. Provide audiences opportunities to interact with and discuss the data

5. Use systematically collected and organized data to create shared understanding and build consensus toward solutions

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Changes in Disparity Ratios (Grade Relative to Whites) Between 2004 and 2008 for Percent of Children Living Below the Federal Poverty Level

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Thank You!