

Epidemiology Assignment 1

Health-Related Quality of Life (HRQOL) Prevalence Data Trends and Analysis

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Presentation Overview

- **Health-Related Quality of Life (HRQOL): concepts and measurement**
 - **CDC HRQOL Surveillance Program's Healthy Days Measures**
- **Unhealthy days according to demographics: age, sex**
- **Assignment overview: State and US trends in HRQOL prevalence data**

• Introduction and outline of the presentation.

• 3 primary components of presentation include an overview of QOL, HRQOL, and the CDC's Healthy Days Measures, relevant data resulting from use of the measures, and assignment instructions

Measuring Health-Related Quality of Life (HRQOL)

- **Broad outcome measures designed to measure physical, emotional, and social dimensions of health** (*McDowell & Newell, 1996*).
- **No one definition of HRQOL is agreed upon, but generally assessed with generic measures (e.g., Short-Form 36) or disease-specific measures (e.g., Quality of Life in Epilepsy Scale-10** (*Ware & Sherbourne, 1992; Cramer et al., 1996*).
- **Quality of Life Instruments Database (QOLID): Online database of generic and disease-specific measures.** <http://www.proqolid.org>

- Introduce the concept of HRQOL and its measurement.
- There are varying definitions for HRQOL.
- There are many ways and scales with which to measure HRQOL depending on one's needs. Generally, each scale has its advantages and disadvantages that make it more or less advantageous to use depending on the scenario in question. See the provided link for a database of QOL scales.

What is Health-Related Quality of Life (HRQOL)?

- **For public health surveillance purposes, HRQOL was defined as...“an individual’s or group’s perceived physical and mental health over time.”**

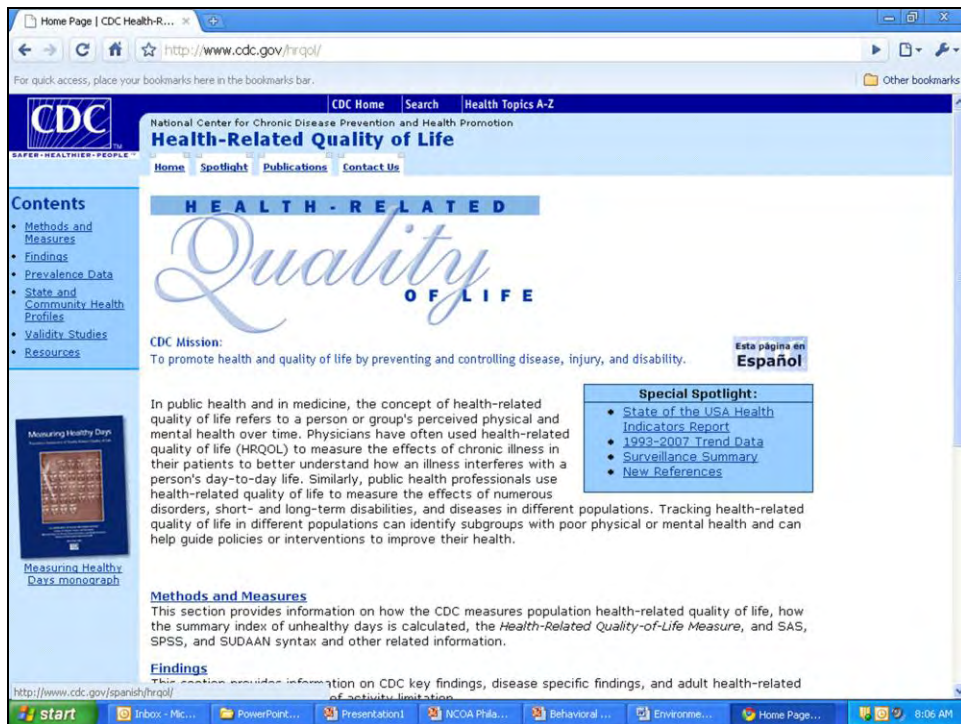
(Measuring Healthy Days, CDC 2000)

- <http://www.cdc.gov/hrqol>
- <http://www.cdc.gov/brfss>

•This slide presents a definition of HRQOL as defined by CDC.

•Links: 1st link is to the CDC’s HRQOL Surveillance Program homepage;

2nd link is to the CDC BRFSS homepage. The Healthy Days Measures are administered as part of the annual BRFSS.



- This is CDC's HRQOL Surveillance Program's homepage.
- Use this slide just to familiarize the class with the website and what it contains. Note the definition of HRQOL in the main paragraph.

Core Healthy Days Measures

1. Would you say that in **general** your **health** is excellent, very good, good, fair, or poor?
2. Now thinking about your physical health, which includes physical illness and injury, for how many **days during the past 30 days** was your **physical health not good**?
3. Now thinking about your mental health, which includes stress, depression, and problems with emotions, for how many days during the past 30 days was your **mental health not good**?
4. During the past 30 days, for about how many days did **poor physical or mental health keep you from doing your usual activities**, such as self-care, work, or recreation?

•These are the 4 core Healthy Days measures (HRQOL-4) used in the Behavioral Risk Factor Surveillance System (BRFSS) and the National Health and Nutrition Examination Survey (NHANES).

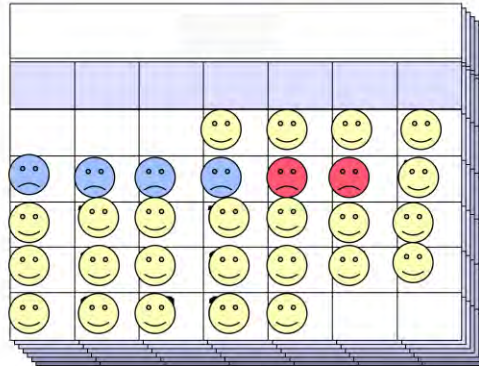
•While there are other Healthy Days measures that are sometimes included in these surveys (Activity Limitations module (4 questions), Healthy Days Symptoms module (5 questions)) (see http://www.cdc.gov/hrqol/hrqol14_measure.htm), these are 4 core questions that are most widely used.

Unhealthy Days = days in the past 30 days when both physical and mental health were not good

 = Physically unhealthy day

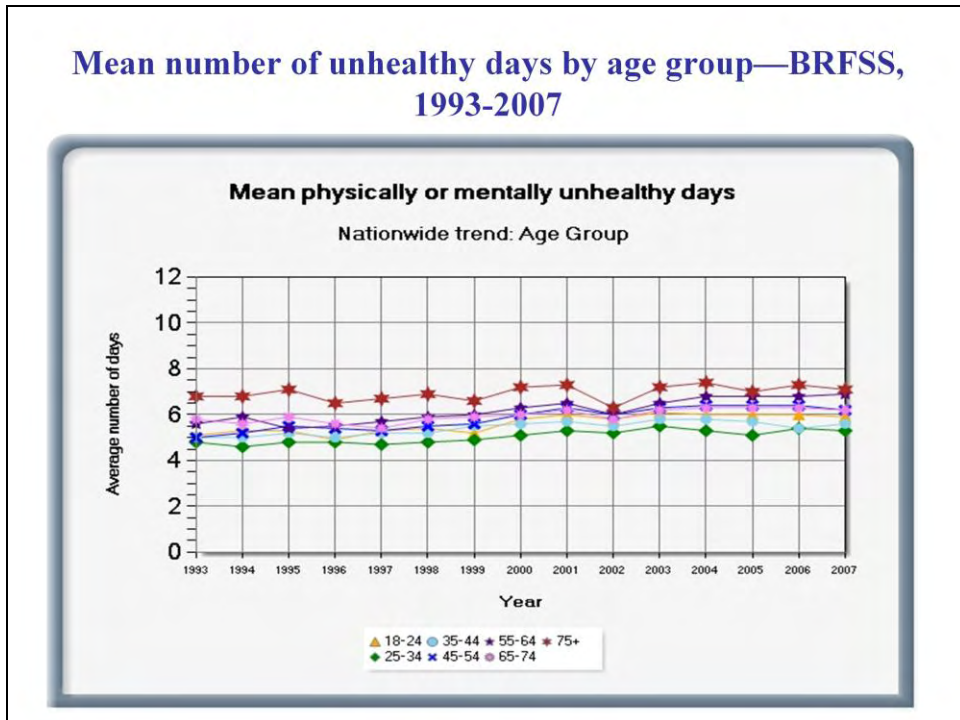
 = Mentally unhealthy day

 = Healthy day



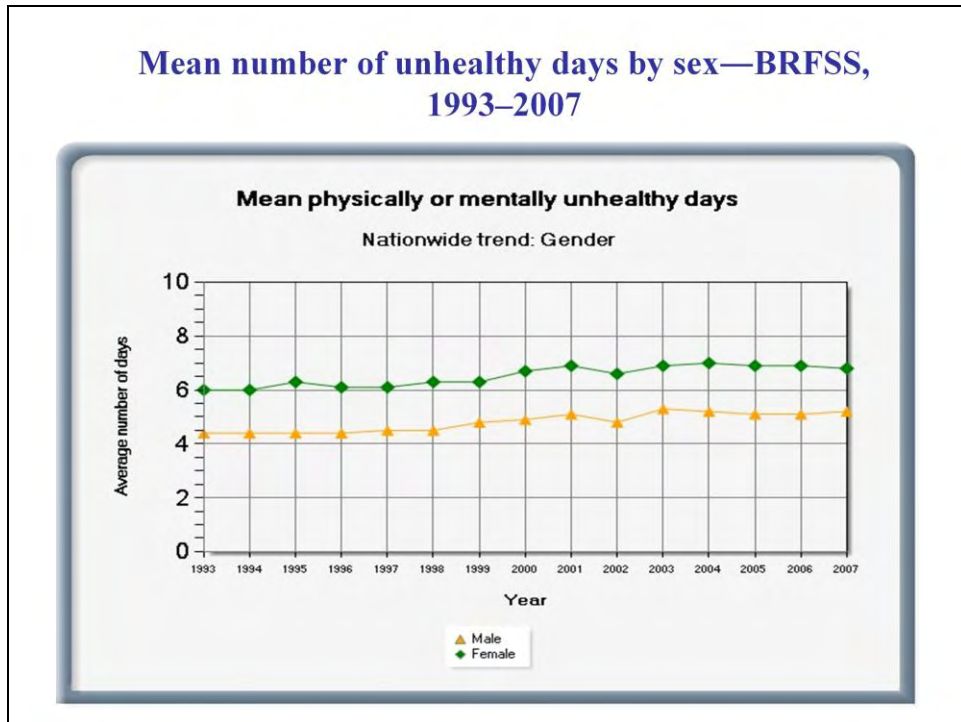
- This graphic provides an idea as to how physically, mentally, and overall unhealthy days are calculated from the questions on the previous slide.
- Unhealthy days are an estimate of the overall number of days during the previous 30 days when the respondent felt that either his or her physical or mental health was not good. To obtain this estimate, responses to questions 2 and 3 are combined to calculate a summary index of overall unhealthy days, with a logical maximum of 30 unhealthy days. For example, a person who reports four physically unhealthy days and two mentally unhealthy days is assigned a value of six unhealthy days, and someone who reports 30 physically unhealthy days and 30 mentally unhealthy days is assigned the maximum of 30 unhealthy days.
- The majority of individuals report substantially different numbers of physically unhealthy days versus mentally unhealthy days; for example, in the 1998 Behavioral Risk Factor Surveillance System (BRFSS), 67.8% of the 68,619 adults who reported any unhealthy days reported only physically unhealthy days or mentally unhealthy days.

Mean number of unhealthy days by age group—BRFSS, 1993-2007



- Graph displays mean unhealthy days by age group over time, from 1993-2007.
- Note relatively little change in mean unhealthy days within age groups over this period.
- Relevance: Assignment requires students to consider trends in the HRQOL data according to demographic variables.

Mean number of unhealthy days by sex—BRFSS, 1993–2007



- Graph displays mean unhealthy days by sex over time, from 1993-2007.
- Note the upward trend for both males and females. Also note difference in mean unhealthy days between men and women.
- Relevance: Assignment requires students to consider trends in the HRQOL data according to demographic variables.

Assignment Instructions:

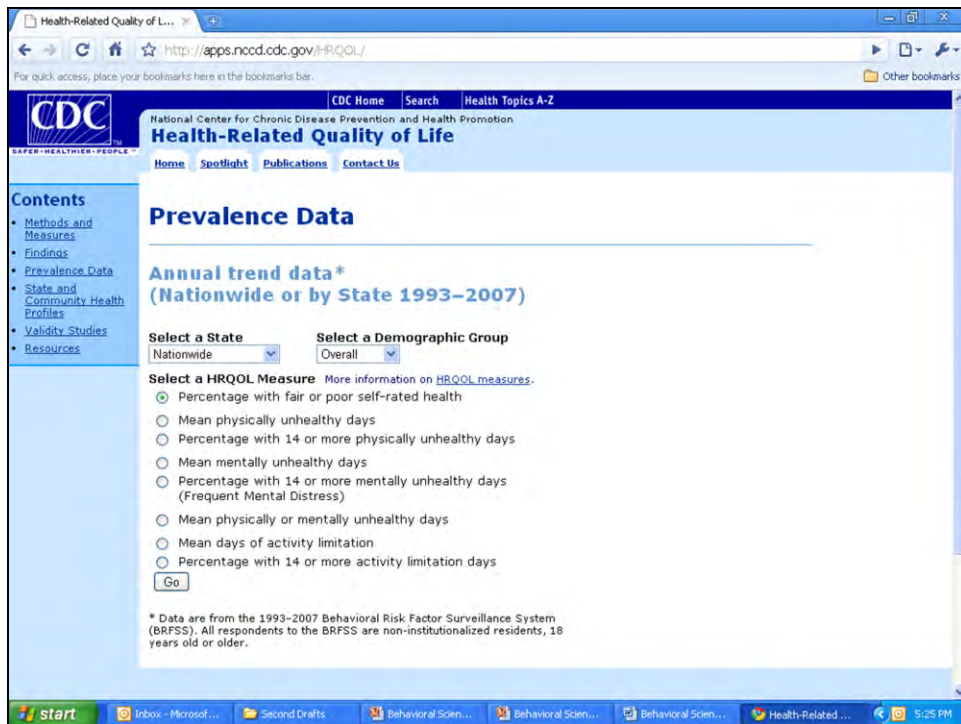
- 1. Go to CDC's HRQOL Prevalence data website (<http://apps.nccd.cdc.gov/HRQOL/>).**
- 2. Review information on the HRQOL measures via the link provided on the webpage.**
- 3. Return to the Prevalence data page and select a state of interest and review the various HRQOL trend data according to the demographic groups available.**
- 4. Look for patterns or trends in the data (e.g., differences in quality of life by gender or race).**
- 5. Select 2-3 patterns or state trends and compare against the national data.**

- Instructions for the student assignment.

Instructions continued:

- 6. Search for and review additional articles on the identified trends (see http://www.cdc.gov/hrqol/publications_topic.htm as one possible resource).**
- 7. Write a short paper (3-4 pages) outlining the observed trends and how they compare to national estimates. Provide a potential explanation or argument for the observed trends, incorporating the reviewed literature to support your argument. Include recommendations for future research.**

•Student instructions continued.



- CDC HRQOL Surveillance Program's Prevalence Data page.
- Students will use this page to query data on a state of interest by the available demographic variables.



- CDC HRQOL Surveillance Program's Publications Page: Topic Based Listing.
- Students can visit this website as a resource for additional relevant articles.