# Division of Cancer Control and Population Sciences

http://cancercontrol.cancer.gov



# **Health Disparities Calculator**

http://seer.cancer.gov/hdcalc/

## **Overview**

The Health Disparities Calculator (HD\*Calc) is designed to generate multiple summary measures to evaluate and monitor health disparities. The HD\*Calc statistical software can be used either as an extension of SEER\*Stat—allowing users to import Surveillance, Epidemiology, and End Results (SEER) data—or with other population-based health data, including data from the National Health Interview Survey (NHIS), California Health Interview Survey (CHIS), Tobacco Use Supplement to the Current Population Survey (TUS-CPS), and National Health and Nutrition Examination Survey (NHANES).

HD\*Calc can be used to produce 11 summary measures of disparity. Cancer rates and other data categorized by disparity groups such as race/ethnicity, socioeconomic status (SES), and geographic area can be used with HD\*Calc to generate output that can be presented in both tabular and graphic formats. HD\*Calc program users are able to specify a range of conditions and formats.

HD\*Calc can be used to apply the measures of health disparities described in the NCI monograph, Methods for Measuring Cancer Disparities: A Review Using Data Relevant to Healthy People 2010 Cancer-Related Objectives (NCI, 2005; http://seer.cancer.gov/publications/disparities). This monograph evaluates major

issues that may affect the choice of summary measures of disparity, and it is recommended for those who are unfamiliar with the measures available in HD\*Calc.

For those interested in a comparative look at measures of health disparities, the monograph Selected Comparisons of Measures of Health Disparities: A Review Using Databases Relevant to Healthy People 2010 Cancer-Related Objectives (NCI, 2007; <a href="http://seer.cancer.gov/publications/disparities2">http://seer.cancer.gov/publications/disparities2</a>) uses case studies to analyze the performance and appropriateness of various health disparity measures.

These monographs are recommended to anyone involved in health disparities research.

#### Use HD\*Calc to:

- Quickly and accurately compare different measures of disparities by race/ethnicity, SES, and geographic area;
- Evaluate multiple summary measures for monitoring and presenting health disparities;
- Graphically explore underlying trends in data; and
- Easily export tables and graphs.

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### **HD\*Calc Tutorials**

Exercises on the following topics are available at <a href="http://seer.cancer.gov/hdcalc/tutorials">http://seer.cancer.gov/hdcalc/tutorials</a>:

- Preparing SEER cancer incidence data using SEER\*Stat (http://seer.cancer.gov/seerstat);
- Importing the data into HD\*Calc for analysis;
- Using data that did not come from SEER\*Stat to calculate health disparities in HD\*Calc.

The tutorials demonstrate how to measure health disparities:

- By race using SEER incidence data.
- By SES group using SEER incidence data.
- By race using SEER incidence data showing a 3-year moving average.
- By income level using CHIS colorectal cancer screening data.

#### References

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Harper S, Lynch J, Meersman, SC, Breen N, Davis WW, Reichman ME. Trends in area-socioeconomic and race-ethnic disparities in breast cancer incidence, stage at diagnosis, screening, mortality, and survival among women ages 50 years and over (1987-2005). Cancer Epidemiol Biomarkers Prev. 2009; 18(1):121-31. (http://cebp.aacrjournals.org/cgi/content/abstract/18/1/121)

Harper S, King NB, Meersman SC, Reichman ME, Breen N, Lynch J. Implicit value judgments in the measurement of health inequalities. Milbank Q. 2010 Mar;88(1):4-29.

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