

HD*Calc

Health Disparities Calculator

Surveillance Research Program &
Applied Research Program
National Cancer Institute

Health Disparities Calculator

- Extends work published in the NCI Monograph Series entitled Methods for Measuring Cancer Disparities.
- The monograph evaluates a variety of health disparity measures.
- Discusses major issues that may affect the choice of summary measures of disparity and systematically reviews methods used in health disparities research.

Table 5. Summary Table of Advantages and Disadvantages of Potential Health Disparity Measures

Disparity Measure	Symbol	Absolute or Relative	Reference Group	All Social Groups	Reflect SES Gradient	Social Group W eighting	Inequality A version Parameter	Graphical Analogue
Total Disparity								
Inter-Individual Difference	<i>IID</i>	Variable	ATBO ^a	No	No	No	Yes	No
Individual-Mean Difference	<i>IMD</i>	Variable	Average	No	No	No	Yes	No
Social Group Disparity								
Absolute Difference	<i>AD</i>	Absolute	Best	No	Yes	No	No	Yes
Relative Difference	<i>RD</i>	Relative	Best	No	Yes	No	No	Yes
Regression-Based Relative Effect	<i>RRE</i>	Relative	Best	Yes	Yes	No ^b	No	Yes
Regression-Based Absolute Effect	<i>RAE</i>	Absolute	Best	Yes	Yes	No ^b	No	Yes
Slope Index of Inequality	<i>SII</i>	Absolute	Average	Yes	Yes	Yes	No	Yes
Relative Index of Inequality	<i>RII</i>	Relative	Average	Yes	Yes	Yes	No	Yes
Index of Disparity	<i>ID_{isp}</i>	Relative	Best	Yes	No	No	No	No
Population Attributable Risk	<i>PAR</i>	Absolute	Best	Yes	No	Yes	No	Yes
Population Attributable Risk%	<i>PAR%</i>	Relative	Best	Yes	No	Yes	No	No
Index of Dissimilarity	<i>ID</i>	Absolute	Average	Yes	No	Yes	No	Yes
Index of Dissimilarity%	<i>ID%</i>	Relative	Average	Yes	No	Yes	No	No
Relative Concentration Index	<i>RCI</i>	Relative	Average	Yes	Yes	Yes	Yes	Yes
Absolute Concentration Index	<i>ACI</i>	Absolute	Average	Yes	Yes	Yes	Yes	Yes
Between-Group Variance	<i>BGV</i>	Absolute	Average	Yes	No	Yes	Yes	No
Squared Coefficient of Variation	<i>CV²</i>	Relative	Average	Yes	No	Yes	No	No
Atkinson's Measure	<i>A</i>	Relative	Average	Yes	No	Yes	Yes	No
Gini Coefficient	<i>Gini</i>	Relative	Average	Yes	No	Yes	No	Yes
Theil Index	<i>T</i>	Relative	Average	Yes	No	Yes	Yes	No
Mean Log Deviation	<i>MLD</i>	Relative	Average	Yes	No	Yes	Yes	No
Variance of Logarithms	<i>VarLog</i>	Relative	Average	Yes	No	Yes	No	No

^aAll those better off.

^bIn the case of regression-with grouped data.

HD*Calc Version 1.1.0

- Freely available at:
<http://seer.cancer.gov/hdcalc/>
- Displays input statistics and disparity measures in tabular and graphical formats.

HD*Calc Version 1.1.0

Input data (not calculated by HD*Calc):

Cross-sectional and trend data (e.g. cancer rates, survival, stage at diagnosis proportions) categorized by disparity groups

Statistics may be calculated by NCI's SEER*Stat software or calculated by any software (HD*Calc will import text or csv files).