

### **Healthy People 2030: Health Disparities Feature**

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**NCHS Board of Scientific Counselors** 

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# Background

### What is Healthy People?

- Provides a strategic framework for a national prevention agenda that communicates a vision for improving health and achieving health equity
- Identifies science-based, measurable objectives with targets to be achieved by the end of the decade
- Requires tracking of data-driven outcomes to monitor progress and to motivate, guide, and focus action
- Offers model for international, state, and local program planning











### **Role of NCHS within Healthy People**

- Statistical methods and measure development
- Healthy People databases
- Analysis and presentation of data
- Expertise and technical assistance

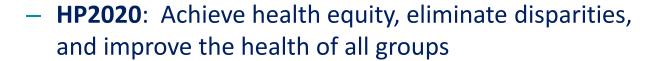


### **History**

 1985: HHS Report of the Secretary's Task Force on Black & Minority Health (Heckler Report)



- Healthy People Overarching Goals:
  - HP2000: Reduce health disparities
  - HP2010: Eliminate health disparities









 HP2030: Eliminate health disparities, achieve health equity, and attain health literacy to improve the health and well-being of all

## Measurement

### **Healthy People 2030 Data Template**

	•	
Total	<b>Educational Attainment</b>	<b>Veteran Status</b>
Sex	<ul> <li>&lt; High school</li> </ul>	<ul> <li>Veteran</li> </ul>
• Male	<ul> <li>High school</li> </ul>	<ul> <li>Non-Veteran</li> </ul>
Female	Some college or Associates degree	Disability Status

Some college or Associates degree

4-year college degree or more

 American Indian/Alaska Native only Family Income (percent poverty threshold)

• <100

 100-199 200-399

>=400

Health Insurance Status

Insured

Private

Public

Uninsured

**Geographic Location or Region** 

Metropolitan

Black only, not Hispanic or Latino

- White only, not Hispanic or Latino

American Indian/Alaska Native only,

Native Hawaiian/Pacific Islander only,

Asian only, not Hispanic or Latino

Native Hawaiian/Pacific Islander only

not Hispanic or Latino

not Hispanic or Latino

Black or African American only

Race/Ethnicity

Asian only

White only

2 or more races

Hispanic or Latino

Not Hispanic or Latino

- 2 or more races not Hispanic or Latino

Age

[Standard groups by data system]

US

Outside US

Nonmetropolitan

**Marital Status** Married/Cohabiting partner

Divorced or Separated/Widowed

Never married

**Country of Birth** 

**Disability Status** 

People with disabilities

 People without disabilities Sexual Orientation

 Straight Straight, Male

- Straight, Female Gav/Lesbian

> Gay, Male – Gay/Lesbian, Female

 Bisexual Bisexual, Male

Bisexual, Female

**Gender Identity** [Standard groups by data system]

If data are not collected, analyzed, or available (or need to be suppressed) for a particular demographic group by

a data source, the demographic label will still be shown

and a symbol or acronym will be displayed to indicate the reason data are not shown. With justification by the workgroup and approval by NCHS, additional population categories and

subcategories may be included on a case-by-case basis.

## **Disparities: Evolution of Measurement**

HP2020

HP2010

HP2000

	HP2000	HP2010	HP2020	HP2030
Overarching Goal	Reduce health disparities	Eliminate health disparities	Achieve health equity, eliminate disparities, and improve the health of all groups	Eliminate health disparities, achieve health equity, and attain health literacy to improve the health and well-being of all
Disparity Targets	Separate targets were set designed to narrow the gap with the total population	No separate disparities targets, but use of "better than the best" target-setting method	No separate disparities targets, but we do consider progress by population group	No separate disparities targets, but we do consider progress by population group
Measurement	Absolute disparity: Not assessed Relative disparity: Not assessed Change in disparity over time: ratio of percent change for reference group to percent change for group of interest Reference point: Total population	Absolute disparity: Not assessed  Relative disparity:  1. Percentage difference 2. Index of disparity  Change in disparity over time: absolute difference for measures above  Reference point: Most favorable group rate	Absolute disparity:  1. Maximal rate difference  Relative disparity:  2. Rate ratio  3. Maximal rate ratio  4. Summary rate ratio  Change in disparity over time: absolute and relative difference for maximal and summary rate ratio  Reference point:  Most favorable group rate	Absolute disparity:  1. Rate difference*  2. Maximal rate difference  3. Summary rate difference*  Relative disparity:  4. Rate ratio  5. Maximal rate ratio  6. Summary rate ratio  Change in disparity over time: absolute and relative difference for measures above  Reference point: Most favorable group rate
				*Proposed new measures for HP2030

HD2U3U

### **Absolute vs. Relative Measures**

- Absolute disparity: simple difference between two rates (also referred to as the rate difference or absolute difference)
  - Absolute disparities may be easier to visualize than relative disparities.
  - Example: The **maximal rate difference** is the difference between the highest and the lowest group rates.
- Relative disparity: disparity measured relative to the group with the best rate
  - Examples include the percent difference between rates or the ratio between rates.
  - Relative disparities are unit-free and can be used to compare objectives with different units of measure.
  - Example: The **maximal rate ratio** is the ratio of the highest to the lowest group rates.

### **Between-Group Measures**

- Between-group measures consider disparities between exactly two group rates. For Healthy People purposes, the group rates used are:
  - $R_f$  = rate for the most favorable group (reference point)
  - $R_a$  = rate for a group of interest
- Examples
  - Absolute: The **rate difference** is the absolute value of the simple difference:  $\left|R_f R_g\right|$
  - Relative: The rate ratio is defined as:
    - $\frac{R_f}{R_g}$ , if an increase is desired
    - $\frac{R_g}{R_f}$ , if a decrease is desired

### **Overall (Across-Group) Measures**

- Overall (across-group) measures consider the data across multiple group rates, although their calculation may or may not incorporate more than two group rates.
- Examples
  - Given
    - $R_f$  = rate for the most favorable group (reference point)
    - $R_a$  = the average of the rates for all other groups
    - Absolute: The summary rate difference is  $|R_f R_a|$
    - Relative: The **summary rate ratio** is  $\frac{R_f}{R_g}$ , if an increase is desired; or  $\frac{R_a}{R_f}$ , if a decrease is desired.
      - ➤ When there are only two groups, these measures reduce to the maximal rate difference and maximal rate ratio, respectively.
  - The maximal rate difference and maximal rate ratio are also examples of overall (acrossgroup) disparities measures that incorporate the smallest and largest rates in their calculation.  $_{11}$

## **Demonstration**

Home » Objectives and Data » About Disparities Data

### **About Disparities Data**

Healthy People 2030 includes health disparities data for population-based core objectives with available demographic group data. Health disparities are differences in health that are closely linked to social determinants of health.

Addressing health disparities is key to achieving health equity and realizing the Healthy People vision of improving the health and well-being of all.

#### How to use disparities data

Watch this video to learn how to interact with Healthy People 2030 objective data, including disparities data.

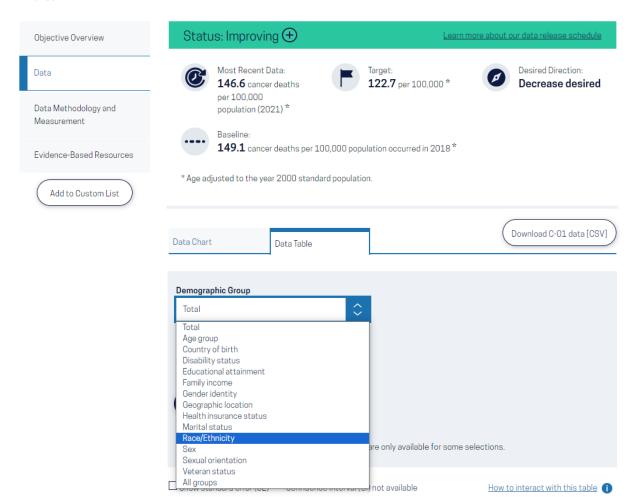


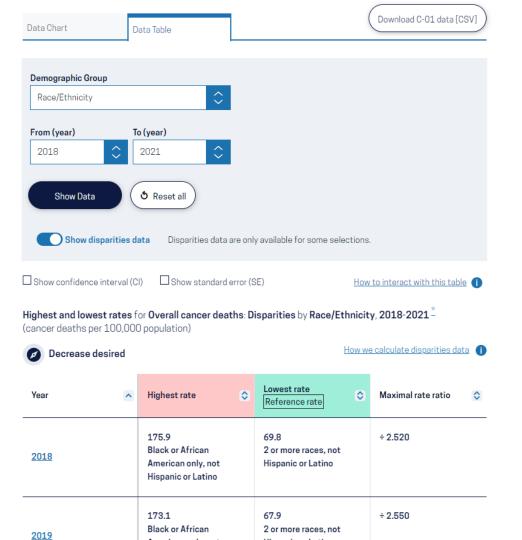
#### How we calculate disparities data

Healthy People 2030 assesses disparities data for population-based core objectives with available demographic group data for a given time point. The following are key concepts in the assessment of disparities:

- Highest rate (R<sub>max</sub>)
- Lowest rate (R<sub>min</sub>)

#### Data





### Overall cancer deaths: Disparities by Race/Ethnicity, 2021 $\stackrel{*}{-}$ (cancer deaths per 100,000 population)

Decrease desired		How we calculate disparities data
Demographic Group	2021	Rate ratio 💠
Black or African American only, not Hispanic or Latino	167.4 Highest rate	÷ 2.485
White only, not Hispanic or Latino	153.7	÷ 2.283
Native Hawaiian or Other Pacific Islander only, not Hispanic or Latino	144.6	÷2.148
American Indian or Alaska Native only, not Hispanic or Latino	124.9	÷1.854
Hispanic or Latino	105.1	÷1.561
Asian only, not Hispanic or Latino	92.9	÷1.379
2 or more races, not Hispanic or Latino	67.3  Lowest rate  Reference rate	÷1.000

### Select a year to see a summary of health disparities and more detailed health disparity information



#### Persons of 2 or more races, not Hispanic or Latino had the lowest group rate for this objective,

- 67.3 per 100,000 population.
- Black or African American only, not Hispanic or Latino persons had the highest group rate for this objective, 167.4 per 100,000 population.
- The difference between the highest and lowest group rates was 100.0 per 100,000 population (maximal rate difference)
- The highest group rate was 2.485 times the lowest group rate (maximal rate ratio).
- The average rate for all other race and ethnicity populations (131.4 per 100,000 population), excluding the lowest (summary rate ratio) was 1.952 times the lowest group rate.

#### Detailed measures of health disparities by Race and Ethnicity (age adjusted) — 2021 $\,$

- The rate for Asian only, not Hispanic or Latino persons was 1.379 times the lowest group rate.
- The rate for Hispanic or Latino persons was 1.561 times the lowest group rate.
- The rate for American Indian or Alaska Native only, not Hispanic or Latino persons was 1.854 times the lowest group rate.
- The rate for Native Hawaiian or Other Pacific Islander only, not Hispanic or Latino persons was

  The rate for Native Hawaiian or Other Pacific Islander only, not Hispanic or Latino persons was
- 2.148 times the lowest group rate.
- The rate for White only, not Hispanic or Latino persons was 2.283 times the lowest group rate.
- The rate for Black or African American only, not Hispanic or Latino persons was 2.485 times the lowest group rate.

### Notes:

assessed

The target for this objective is 122.7 per 100,000 population. Unless otherwise noted, each measurable objective has a single target for all population groups. More information can be found

measurable objective has a single target for all population groups. More information can be on the <u>Target Setting</u> landing page.

'Rate' as used in the text refers to the value of a rate, percentage, proportion, or other quantitative measure for which disparities for a given Healthy People 2030 objective are

## Conclusion

### **Next Steps and Takeaways**

- As there is no single gold standard in health disparities measurement, considering multiple measures can provide a fuller context of health disparities.
- A forthcoming NCHS Series 2 report will document HP2030 disparities measures and expand further on their strengths and limitations.
- The HP2030 disparities feature provides a starting point for health disparities data and content for HP2030 objectives. Future enhancements:
  - increased functionality
  - additional measures
  - disparities charts

### References

#### Websites:

- Healthy People 2030 (Main): <a href="https://health.gov/healthypeople">https://health.gov/healthypeople</a>
  - Healthy People 2030 (Disparities): <a href="https://health.gov/healthypeople/objectives-and-data/about-disparities-data">https://health.gov/healthypeople/objectives-and-data/about-disparities-data</a>
- NCHS Healthy People: <a href="http://www.cdc.gov/nchs/healthy-people.htm">http://www.cdc.gov/nchs/healthy-people.htm</a>
- Health Disparities Calculator (NCI): <a href="https://seer.cancer.gov/hdcalc/">https://seer.cancer.gov/hdcalc/</a>

#### Manuscripts:

- Braveman P. Health disparities and health equity: concepts and measurement. Annu Rev Public Health. 2006;27:167-194. https://doi.org/10.1146/annurev.publhealth.27.021405.102103
- Harper et al. Implicit value judgments in the measurement of health inequalities. Milbank Q. 2010;88(1):4–29. https://doi.org/10.1111/j.1468-0009.2010.00587.x
- Huang DT, Bassig BA, Hubbard K, Klein RJ, Talih M. Examining progress toward elimination of racial and ethnic health disparities for Healthy People 2020 objectives using three measures of overall disparity. National Center for Health Statistics. Vital Health Stat 2(195). 2022. DOI: https://dx.doi.org/10.15620/cdc:121266
- Keppel K, Pamuk E, Lynch J, et al. Methodological issues in measuring health disparities. National Center for Health Statistics. Vital Health Stat 2(141). 2005. https://www.cdc.gov/nchs/data/series/sr 02/sr02 141.pdf
- Penman-Aguilar A, Talih M, Huang D, et al. Measurement of health disparities, health inequities, and social determinants of health to support the advancement of health equity. J Public Health Management Practice. 2016; 22(1 Supp):S33-S42. <a href="https://doi.org/10.1097/phh.000000000000373">https://doi.org/10.1097/phh.0000000000000373</a>
- Talih M, Huang DT. Measuring progress toward target attainment and the elimination of health disparities in Healthy People 2020.
   Healthy People Statistical Notes, no 27. Hyattsville, MD: National Center for Health Statistics. 2016.
   https://www.cdc.gov/nchs/data/statnt/statnt27.pdf

## **Thank You!**

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