Reader's Guide

Introduction

This Guide provides information for understanding and interpreting data presented in the Healthy People 2020 Midcourse Review, specifically in Chapter IV: Leading Health Indicators and Chapters 1–42, the topic area chapters. These chapters include text highlighting selected midcourse findings, as well as the following midcourse tables and maps, as applicable:

■ Objective and data source table,

■ Midcourse progress table for measurable objectives,

■ Midcourse health disparities table for population-based objectives, and

■ State or county level maps for selected objectives.
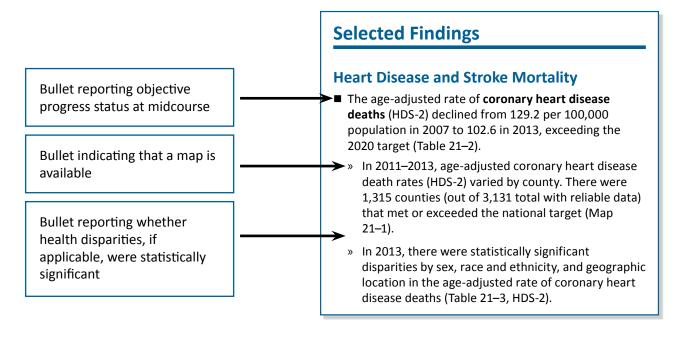
Selected Findings

Selected findings highlight the progress of objectives that met or exceeded the 2020 targets, were improving, or were getting worse at midcourse (Figure II–1). Objectives that demonstrated little or no detectable change generally are not highlighted. However, all objectives with midcourse health disparities data or a map are highlighted.

Objective and Data Source Table

An objective is identified by its topic area abbreviation and an objective number (Figure II–2). For instance, EMC-1 is the first objective in the Early and Middle Childhood Topic Area. Measurable objectives had a national baseline value as of the Midcourse Review. The traffic light icon 🚦, disparities icon 🔵, and map icon 🗺️ indicate the availability of objective data in the chapter's midcourse progress table, the midcourse health disparities table, or a map, respectively.

Midcourse data availability is not applicable for objectives marked as "Developmental" or "Archived." As of the Midcourse Review, developmental objectives did not have a national baseline value and archived objectives were no longer being monitored due to lack of data source, changes in science, or replacement with other objectives. Data sources for developmental objectives or archived objectives that were previously developmental are marked as "Potential."

Figure II–1. Example of Selected Findings from Chapter 21: Heart Disease and Stroke

Figure II–2. Example Objective and Data Source Table from Chapter 10: Early and Middle Childhood

Table 10–1. Early and Middle Childhood Objectives

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🚦 Data for this objective are available in this chapter's Midcourse Progress Table.

📊 Disparities data for this objective are available, and this chapter includes a Midcourse Health Disparities Table.

🗺 A state or county level map for this objective is available at the end of the chapter.

| Not Applicable | Midcourse data availability is not applicable for developmental and archived objectives. **Developmental** objectives did not have a national baseline value. **Archived** objectives are no longer being monitored due to lack of data source, changes in science, or replacement with other objectives. |

Objective Number	Objective Statement	Data Sources	Midcourse Data Availability
EMC-1	(Developmental) Increase the proportion of children who are ready for school in all five domains of healthy development: physical development, social-emotional development, approaches to learning, language, and cognitive development	(Potential) National Survey of Children's Health (NSCH), HRSA/MCHB and CDC/NCHS	Not Applicable
EMC-2.1	(Archived) Increase the proportion of parents who report a close relationship with their child	(Potential) National Survey of Adoptive Parents (NSAP), ASPE; National Survey of Children's Health (NSCH), HRSA/MCHB and CDC/NCHS	Not Applicable
EMC-2.2	Increase the proportion of parents who use positive communication with their child	National Survey of Children's Health (NSCH), HRSA/MCHB and CDC/NCHS	🚦 📊
EMC-2.3	Increase the proportion of parents who read to their young child	National Survey of Children's Health (NSCH), HRSA/MCHB and CDC/NCHS	🚦 📊 🗺

Midcourse Progress Table for Measurable Objectives

Assessment of an objective's midcourse progress depended on several factors, including the availability of a baseline or midcourse data point, a target, the direction of movement, the percentage of change from the baseline or toward the target, the availability of standard errors, and statistical significance (Figure II–3).

The Technical Notes provide more information on the Healthy People 2020 measures of progress.

Each chapter's Midcourse Progress Table (Figure II–4) includes icons indicating an objective's status at midcourse, as well as the objective data and progress assessment details.

Explanation of the Midcourse Progress Table

■ Objective RD-1.1 is **informational** (■).

» Findings: The rate of asthma deaths among children and adults under age 35 years was 3.4 per million population in 2007. In 2013, the rate was 3.7 per million population. This objective is informational only and no 2020 target has been set.

» Progress assessment: A target was not set for this objective, so progress toward target attainment could not be assessed.

■ Objective RD-1.2 was **getting worse** (■).

» Findings: The rate of asthma deaths among adults aged 35–64 increased between 2007 and 2013, from 11.0 to 12.0 per million population, moving away from the baseline and 2020 target of 4.9 per million population.

Figure II–3. Assessment of Midcourse Progress for Measurable Objectives

Figure II–4. Example of Midcourse Progress Table from Chapter 36: Respiratory Diseases

Table 36–2. Midcourse Progress for Measurable Respiratory Diseases Objectives

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✔ Target met or exceeded	➕ Improving	◯ Little or no detectable change	➖ Getting worse	▢ Baseline only	▪ Informational

	Objective Description	Baseline Value (Year)	Midcourse Value (Year)	Target	Movement Toward Target	Movement Away From Baseline	Movement Statistically Significant
Asthma							
▪	**RD-1.1** Asthma deaths among children and adults (per million population, <35 years)	3.4 (2007)	3.7 (2013)				
➖	**RD-1.2** Asthma deaths among adults (per million population, 35–64 years)	11.0 (2007)	12.0 (2013)	4.9		9.1%	Yes
➕	**RD-1.3** Asthma deaths among adults (per million population, 65+ years)	43.4 (2007)	35.7 (2013)	21.5	35.2%		Yes
◯	**RD-2.1** Hospitalizations for asthma among children (per 10,000 population, <5 years)	41.4 (2007)	33.1 (2010)	18.2	35.8%		No
✔	**RD-7.1** Persons with asthma receiving written asthma plans from health care providers (age-adjusted, percent)	33.4% (2008)	40.5% (2013)	36.8%	208.8%		Yes
▢	**RD-7.6** Persons with asthma who have had at least one routine medical follow-up visit in the past 12 months (age-adjusted, percent)	57.2% (2013)		60.4%			

» Progress assessment: The rate of asthma deaths among adults aged 35–64 increased by 1.0 per million population (12.0 minus 11.0). The movement away from the baseline, measured using the *magnitude of percentage change from the baseline*, was 9.1% (1.0 divided by 11.0). The magnitude of percentage change from the baseline was statistically significant; therefore, the objective is said to have worsened.

■ Objective RD-1.3 was **improving** (➕).

» Findings: Between 2007 and 2013, the rate of asthma deaths among adults aged 65 and over decreased from 43.4 to 35.7 per million population, moving toward the 2020 target of 21.5 per million population.

» Progress assessment: The rate of asthma deaths among adults aged 65 and over decreased by 7.7 per million population (43.4 minus 35.7). The difference between the baseline and 2020 target was 21.9 per million population (43.4 minus 21.5). The movement

toward the target, measured using the *percent of targeted change achieved*, was 35.2% (7.7 divided by 21.9). The percent of targeted change achieved was statistically significant; therefore, the objective is said to have improved.

■ Objective RD-2.1 demonstrated **little or no detectable change** (◯).

» Findings: The rate of hospitalizations for asthma among children under age 5 years demonstrated little or no detectable change from 2007 to 2010 (41.4 and 33.1 per 10,000 population, respectively).

» Progress assessment: The rate of hospitalization for asthma among children under age 5 years decreased by 8.3 per 10,000 population (41.4 minus 33.1). The difference between the baseline and 2020 target was 23.2 per 10,000 population (41.4 minus 18.2). The movement toward the target, measured using the *percent of targeted change achieved*, was 35.8% (8.3 divided by 23.2). The percent of targeted change achieved was *not*

statistically significant; therefore, the objective is said to have demonstrated little or no detectable change.

- Objective RD-7.1 **met or exceeded** the 2020 target (✅).

  » Findings: Between 2008 and 2013, the age-adjusted proportion of persons with asthma receiving written asthma plans from health care providers increased from 33.4% to 40.5%, exceeding the 2020 target of 36.8%.

  » Progress assessment: In 2013, the age-adjusted proportion of persons with asthma who received written asthma plans from health care providers exceeded the target of 36.8%. Therefore, the objective is said to have met or exceeded the 2020 target. The 7.1 percentage point increase (40.5% minus 33.4%), divided by the 3.4 percentage point difference between the baseline and target (36.8% minus 33.4%), results in 208.8% of targeted change achieved. The percent of targeted change achieved was statistically significant.

  » Note: For the objectives that met or exceeded the target at *baseline*, the percent of targeted change achieved is not shown in the Midcourse Progress Table.

- Objective RD-7.6 had **baseline only** data (⬜).

  » Findings: In 2013, the age-adjusted proportion of persons with asthma who had at least one routine medical follow-up visit in the past 12 months was 57.2%. Data were not available beyond the baseline, so progress toward the 2020 target could not be assessed.

  » Progress assessment: The objective only had one data point, so progress toward target attainment could not be assessed.

Midcourse Health Disparities Table for Population-based Objectives

The most commonly reported population groups in Healthy People 2020 are defined by the following characteristics: sex, race and ethnicity, educational attainment, family income, disability status, and geographic location. Population characteristics and groups may vary by data source or by objective due to survey design, data collection constraints, or other considerations. The Technical Notes provide more information on these issues.

Midcourse health disparities were assessed using the summary disparity ratio at the midcourse data point where data were available. For objectives with baseline data only, the summary disparity ratio was examined at baseline. The summary disparity ratio is a ratio comparing the most favorable group rate to the average rate for the other groups. When there were only two groups (e.g., male and female), the summary disparity ratio was simply the ratio of the higher to the lower rate. Statistical significance of the summary disparity ratio was calculated when standard errors were available (Figure II–5).

In the Midcourse Health Disparities Table:

- Blue cells (⬛) indicate the population group with the most favorable (least adverse) rate.

- Red cells (⬛) indicate the population group with the least favorable (most adverse) rate.

- Grey cells (⬜) indicate that data are available, but this population group did not have the highest or lowest rate.

- White cells (⬜) indicate that data were not available for this group.

- Lettered footnotes (e.g., a, b, c) indicate cells where the population group is different from the column label. Please see the footnotes at the end of the topic area chapters' Midcourse Health Disparities Tables.

- An asterisk (*) indicates summary disparity ratios that were statistically significant.

- A dagger (†) indicates summary disparity ratios that were not tested for statistical significance.

- Summary disparity ratios with neither an asterisk nor a dagger were not statistically significant.

Explanation of the Midcourse Health Disparities Table

- Objective BDBS-15 disparity **by sex**:

  » Findings: In 2014, the disparity by sex in the proportion of persons with von Willebrand disease (VWD) seen in specialty care centers who were diagnosed by age 21 was not tested for statistical significance.

  » Red and blue cell interpretation: In 2014, among persons with VWD seen in specialty care centers, the male population had the higher and more favorable (⬛) proportion of persons who were diagnosed by age 21, whereas the female population had the lower and less favorable (⬛) proportion.

Figure II–5. Example Midcourse Health Disparities Table from Chapter 4: Blood Disorders and Blood Safety

Table 4–3. Midcourse Health Disparities for Population-based Blood Disorders and Blood Safety Objectives

Most favorable (least adverse) and least favorable (most adverse) group rates and summary disparity ratios for selected characteristics at the midcourse data point

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At the midcourse data point	■ Group with the most favorable (least adverse) rate	■ Group with the least favorable (most adverse) rate
	□ Data are available, but this group did not have the highest or lowest rate.	□ Data are not available for this group because the data were statistically unreliable, not collected, or not analyzed.

Characteristics and Groups

Population-based Objectives	Sex: Male	Female	Summary Disparity Ratio	Race and Ethnicity: American Indian or Alaska Native	Asian	Native Hawaiian or other Pacific Islander	Two or more races	Hispanic or Latino	Black, not Hispanic	White, not Hispanic	Summary Disparity Ratio	Education[1]: Less than high school	High school graduate	At least some college	Associate's degree	4-year college degree	Advanced degree	Summary Disparity Ratio	Family Income[2]: Poor	Near-poor	Middle	Near-high	High	Summary Disparity Ratio	Disability: Persons with disabilities	Persons without disabilities	Summary Disparity Ratio	Location: Metropolitan	Nonmetropolitan	Summary Disparity Ratio
Bleeding and Clotting																														
BDBS-15 Persons with von Willebrand disease (VWD) diagnosed by 21 years of age (percent) (2014)	■	■	1.304†	□	□		■	□	□	■	1.178†																			
BDBS-16 Persons with hemophilia and reduced joint mobility due to bleeding into joints (percent) (2008)	■	■	1.242*						a	a	1.029																			
Blood Safety																														
BDBS-17 Persons donating blood (age-adjusted, percent, 18+ years) (2010)	■	■	1.130*	□	□	□	■	□	□	■	2.121*	■	□	□	□	□	■	1.756*	■	□	□	□	■	1.722*	■	■	2.137*	■	■	1.026

[1]Unless otherwise footnoted, data do not include persons under age 25 years.
[2]Unless otherwise footnoted, the poor, near-poor, middle, near-high, and high income groups are for persons whose family incomes were less than 100%, 100%–199%, 200%–399%, 400%–599%, and at or above 600% of the poverty threshold, respectively.
[a]Data include persons of Hispanic origin.

» Summary disparity ratio interpretation: The proportion of males with VWD seen in specialty care centers who were diagnosed by age 21 was 1.304 times, or 30.4% greater than, the proportion of females with VWD seen in specialty care centers who were diagnosed by age 21. The summary disparity ratio was not tested for statistical significance, because standard errors of the data were not available.

■ Objective BDBS-16 disparity **by race**:

» Findings: In 2008, the disparity by race in the proportion of persons with hemophilia who developed reduced joint mobility due to bleeding into joints was not statistically significant.

» Footnote interpretation: Footnote *a* overrides the "Black, not Hispanic" and "White, not Hispanic" column labels and indicates that the data for those cells include persons of Hispanic origin.

» Blue, red, and white cell interpretation: In 2008, among persons with hemophilia, the black population had the lower and more favorable (■) proportion of persons who developed reduced joint mobility due to bleeding into joints, whereas the white population had the higher and less favorable (■) proportion. Data were not available (□) for other racial and ethnic groups.

» Summary disparity ratio interpretation: The proportion of the white population with hemophilia who developed reduced joint mobility due to bleeding into joints was 1.029 times, or 2.9% greater than, the proportion of the black population with hemophilia who developed reduced joint mobility due to bleeding into joints. The summary disparity ratio was not statistically significant.

■ Objective BDBS-17 disparity **by family income**:

» Findings: In 2010, the disparity by family income in the age-adjusted proportion of persons aged 18 and over who donated blood was statistically significant.

» Footnote interpretation: Footnote *2* on the family income column indicates that the poor, near-poor, middle, near-high, and high income groups are for persons whose family incomes were less than 100%, 100%–199%, 200%–399%, 400%–599%, and at or above 600% of the poverty threshold, respectively.

» Blue, red, and grey cell interpretation: In 2010, adults with family incomes at or above 600% of the poverty threshold had the highest and most favorable ( ) age-adjusted blood donation rate, whereas those with family incomes less than 100% of the poverty threshold had the lowest and least favorable ( ) rate. Data were available for adults with family incomes at 100%–199%, 200%–399%, and 400%–599% of the poverty threshold; however, these population groups did not have the highest or lowest rates ( ).

» Summary disparity ratio interpretation: The age-adjusted blood donation rate among adults whose family incomes were at or above 600% of the poverty threshold was 1.722 times, or 72.2% greater than, the average rate for adults in the other family income groups. The average rate was calc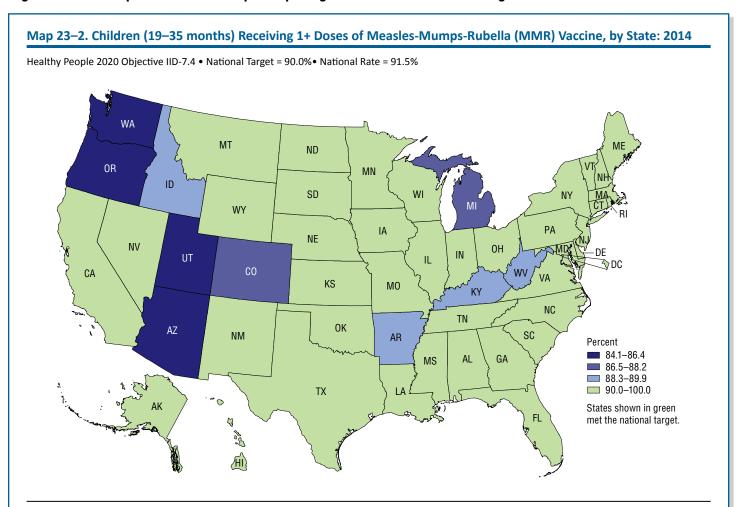ulated by adding the rates for the groups whose family income was less than 100%, 100%–199%, 200%–399%, and 400%–599%, and then dividing by four, the number of groups. The summary disparity ratio was statistically significant.

Midcourse Maps

Midcourse Maps Comparing States or Counties to the National Target

Midcourse maps provide state or county level data related to selected objectives. The state or county data were compared with the national target when the state or county level data source and measure were the same as that of the national objective. For example, Figure II–6 shows childhood immunization rates by state using the same data source as that of the national objective,

Figure II–6. Example Midcourse Map Comparing States to the National Target

Map 23–2. Children (19–35 months) Receiving 1+ Doses of Measles-Mumps-Rubella (MMR) Vaccine, by State: 2014

Healthy People 2020 Objective IID-7.4 • National Target = 90.0%• National Rate = 91.5%

Percent
- 84.1–86.4
- 86.5–88.2
- 88.3–89.9
- 90.0–100.0

States shown in green met the national target.

NOTES: Data are for children aged 19–35 months who received at least 1 dose of the combination of measles, mumps, and rubella antigens in 2014. Data are displayed by a modified Jenks classification for U.S. states which creates categories that minimize within-group variation and maximize between-group variation. The Technical Notes provide more information on the data and methods.

DATA SOURCE: National Immunization Survey (NIS), CDC/NCIRD and CDC/NCHS

the National Immunization Survey. Therefore, state immunization rates were compared to the national target: states that met or exceeded the national target are shown in green.

Other Midcourse Maps

When comparisons between the state and national data could be misleading due to differences in data sources, the state data were *not* compared with the national target. For example, Figure II–7 shows adult obesity rates by state. The national target does not apply since the national and state data are from different sources, the National Health and Nutrition Examination Survey (NHANES) and the Behavioral Risk Factor Surveillance System (BRFSS), respectively. In addition, the national objective data and target are based on measured height and weight, while the state data are based on self-reported height and weight. Because of these differences, national and state data may not be comparable and the state data were *not* compared with the national target.
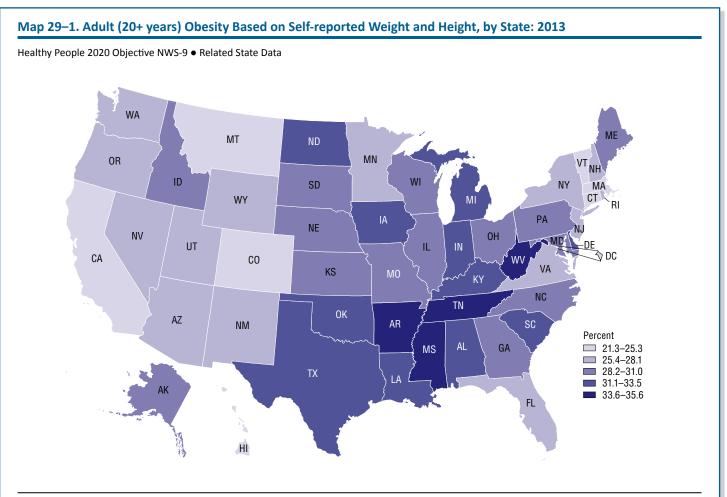
The notes section of the map provides more information regarding issues that may prevent comparisons between the state and national data.

The Technical Notes provide more information on the mapping methods used in the Midcourse Review.

Suggested Citation

National Center for Health Statistics. Chapter II: Reader's Guide. Healthy People 2020 Midcourse Review. Hyattsville, MD. 2016.

Figure II–7. Example Midcourse Map That Does Not Compare States to the National Target

Map 29–1. Adult (20+ years) Obesity Based on Self-reported Weight and Height, by State: 2013

Healthy People 2020 Objective NWS-9 ● Related State Data

Percent
- 21.3–25.3
- 25.4–28.1
- 28.2–31.0
- 31.1–33.5
- 33.6–35.6

NOTES: Data are for adults aged 20 and over with obesity, defined as a body mass index at or above 30.0 kg/m², and are age-adjusted to the 2000 standard population. National data for the objective are based on measured weight and height from the National Health and Nutrition Examination Survey (NHANES) and are the basis for setting the national target of 30.5%. State data from the Behavioral Risk Factor Surveillance System (BRFSS) are based on self-reported weight and height. Data from the NHANES (35.3% in 2009–2012) may not be directly comparable to the all-states combined data from the BRFSS (28.6% in 2013), and therefore the national target may not be applicable to individual states. Data are displayed by a Jenks classification for U.S. states which creates categories that minimize within-group variation and maximize between-group variation. The Technical Notes provide more information on the data and methods.

DATA SOURCE: Behavioral Risk Factor Surveillance System (BRFSS), CDC/NCCDPHP