CHAPTER 17

Health Communication and Health Information Technology (HC/HIT)

Lead Agencies

Centers for Disease Control and Prevention
Office of Disease Prevention and Health Promotion, Office of the Assistant Secretary for Health, Office of the Secretary
Office of the National Coordinator for Health Information Technology, Office of the Secretary

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**Goal:** Use health communication strategies and health information technology (IT) to improve population health outcomes and health care quality, and to achieve health equity.

This chapter includes objectives that monitor patient communication with health care providers, Internet access and use for health management, the quality of health-related websites, emergency risk messages, the use of social marketing in health promotion and disease prevention, and the use of electronic health records. The Reader’s Guide provides a step-by-step explanation of the content of this chapter, including criteria for highlighting objectives in the Selected Findings.

**Status of Objectives**

**Figure 17–1. Midcourse Status of the Health Communication and Health Information Technology Objectives**

Of the 29 objectives in the Health Communication and Health Information Technology Topic Area, 1 was archived, 3 were developmental, and 25 were measurable (Figure 17–1, Table 17–1). The midcourse status of the measurable objectives was as follows (Table 17–2):

- 6 objectives had met or exceeded their 2020 targets,
- 5 objectives were improving,
- 4 objectives had demonstrated little or no detectable change,
- 1 objective was getting worse, and
- 9 objectives had baseline data only.

**Selected Findings**

**Communication with Health Care Providers**

Five of the eight objectives addressing communication with health care providers improved (Table 17–2).

Three objectives addressing communication with health care providers showed little or no detectable change.

- The proportion of persons aged 18 and over who reported that their health care provider’s instructions were easy to understand (HC/HIT-1.1) increased from 64.1% in 2011 to 65.8% in 2012, moving toward the 2020 target (Table 17–2).

  - In 2012, disparities in the proportion of persons who reported that their health care provider’s instructions (HC/HIT-1.1) were easy to understand were statistically significant by education, family income, and disability status. The disparities by sex, race and ethnicity, and geographic location were not statistically significant (Table 17–3).

- The proportion of persons aged 18 and over who reported that their health care provider always asked how instructions would be followed (HC/HIT-1.2) demonstrated little or no detectable change between 2011 and 2012 (24.4% and 25.4%, respectively) (Table 17–2).
In 2012, disparities in the proportion of persons who reported that their health care provider always asked how instructions would be followed (HC/HIT-1.2) were statistically significant by education and family income. The disparities by sex, race and ethnicity, disability status, and geographic location were not statistically significant (Table 17–3).

The proportion of persons aged 18 and over who reported that their health care provider always offered help in filling out forms (HC/HIT-1.3) demonstrated little or no detectable change between 2011 and 2012 (14.8% and 15.6%, respectively) (Table 17–2).

In 2012, disparities in the proportion of persons who reported that their health care provider always offered help in filling out forms (HC/HIT-1.3) were statistically significant by sex, education, and family income. The disparities by race and ethnicity, disability status, and geographic location were not statistically significant (Table 17–3).

Between 2007 and 2012, among persons aged 18 and over, the proportion who reported that their health care provider always listened carefully to them (HC/HIT-2.1) increased from 59.0% to 63.1%; that their health care provider always explained things so that they could understand them (HC/HIT-2.2) increased from 60.0% to 62.3%; that their health care provider always showed respect for what they had to say (HC/HIT-2.3) increased from 62.0% to 66.4%; and that their health care provider always spent enough time with them (HC/HIT-2.4) increased from 49.0% to 53.5%, all moving toward their respective 2020 targets (Table 17–2).

In 2012, disparities in the proportion of persons who reported that their health care provider always listened carefully to them (HC/HIT-2.1) were not statistically significant by sex, race and ethnicity, education, or geographic location (Table 17–3).

In 2012, disparities in the proportion of persons who reported that their health care provider always explained things so that they could understand them (HC/HIT-2.2) were statistically significant by sex, race and ethnicity, education, and geographic location. The disparities by sex and race and ethnicity were not statistically significant (Table 17–3).

In 2012, disparities in the proportion of persons who reported that their health care provider always showed respect for what they had to say (HC/HIT-2.3) were not statistically significant by sex, race and ethnicity, education, or geographic location (Table 17–3).

In 2012, disparities in the proportion of persons who reported that their health care provider always spent enough time with them (HC/HIT-2.4) were statistically significant by sex and geographic location. The disparities by race and ethnicity and education were not statistically significant (Table 17–3).

The proportion of persons aged 18 and over who reported that their health care provider always involved them in health care decisions (HC/HIT-3) demonstrated little or no detectable change between 2007 and 2014 (51.6% and 52.1%, respectively) (Table 17–2).

In 2012, disparities in the proportion of persons who reported that their health care provider always involved them in health care decisions (HC/HIT-3) were statistically significant by sex, race and ethnicity, and geographic location. The disparities by education and family income were not statistically significant (Table 17–3).

Between 2007 and 2012, among persons aged 18 and over, the proportion who used the Internet to keep track of personal health information (HC/HIT-5.1) increased from 14.3% to 28.1%, and the proportion of persons aged 18 and over who used the Internet to communicate with their health care provider (HC/HIT-5.2) increased from 13.6% to 29.7%, exceeding their respective 2020 targets (Table 17–2).

In 2014, disparities in the proportion of persons who used the Internet to keep track of personal health information (HC/HIT-5.1) were statistically significant by sex, education, family income, and geographic location. The disparity by race and ethnicity was not statistically significant (Table 17–3).

In 2014, disparities in the proportion of persons who used the Internet to communicate with their health care provider (HC/HIT-5.2) were statistically significant by education, family income, and geographic location. The disparities by sex and race and ethnicity were not statistically significant (Table 17–3).

Between 2007 and 2014, the proportion of persons aged 18 and over with access to the Internet (HC/HIT-6.1) increased from 68.5% to 78.3%, and the proportion of persons aged 18 and over who used
mobile devices to access the Internet (HC/HIT-6.3) increased from 6.7% to 56.8%, exceeding their 2020 targets (Table 17–2).

» In 2014, disparities in the proportion of persons with access to the Internet (HC/HIT-6.1) were statistically significant by race and ethnicity, education, family income, and geographic location. The disparity by sex was not statistically significant (Table 17–3).

» In 2014, disparities in the proportion of persons who used mobile devices to access the Internet (HC/HIT-6.3) were statistically significant by sex, education, family income, and geographic location. The disparity by race and ethnicity was not statistically significant (Table 17–3).

The proportion of persons aged 18 and over with broadband Internet access (HC/HIT-6.2) decreased from 75.6% in 2007 to 67.4% in 2014, moving away from the baseline and 2020 target (Table 17–2).

» In 2014, disparities in the proportion of persons with broadband Internet access (HC/HIT-6.2) were statistically significant by sex and race and ethnicity. The disparities by education, family income, and geographic location were not statistically significant (Table 17–3).

The proportion of adults aged 18 and over who talked to friends and family members about their health (HC/HIT-7) increased from 79.5% in 2007 to 88.6% in 2013, exceeding the 2020 target (Table 17–2).

» In 2013, disparities in the proportion of adults who talked to friends and family members about their health (HC/HIT-7) were statistically significant by sex, race and ethnicity, and family income. The disparities by education and geographic location were not statistically significant (Table 17–3).

Health Websites

One of the three objectives monitoring access to health websites had data to measure progress.

The proportion of Internet users aged 18 and over who could easily access health information online (HC/HIT-9) demonstrated little or no detectable change between 2007 and 2014 (37.3% and 37.8%, respectively) (Table 17–2).

» In 2014, disparities by sex, race and ethnicity, education, family income, and geographic location in the proportion of Internet users who could easily access health information online (HC/HIT-9) were not statistically significant (Table 17–3).

Electronic Medical Records

» The proportion of office-based medical practices that used electronic records (HC/HIT-10) increased from 25.0% in 2007 to 68.9% in 2013, exceeding the 2020 target (Table 17–3).

More Information

Readers interested in more detailed information about the objectives in this topic area are invited to visit the HealthyPeople.gov website, where extensive substantive and technical information is available:

» For the background and importance of the topic area, see: https://www.healthypeople.gov/2020/topics-objectives/topic/health-communication-and-health-information-technology

» For data details for each objective, including definitions, numerators, denominators, calculations, and data limitations, see: https://www.healthypeople.gov/2020/topics-objectives/topic/health-communication-and-health-information-technology/objectives

Select an objective, then click on the “Data Details” icon.

» For objective data by population group (e.g., sex, race and ethnicity, or family income), including rates, percentages, or counts for multiple years, see: https://www.healthypeople.gov/2020/topics-objectives/topic/health-communication-and-health-information-technology/objectives

Select an objective, then click on the “Data2020” icon.

Data for the measurable objectives in this chapter were from the following data sources:


» Health Information National Trends Survey: http://hints.cancer.gov/

» Medical Expenditure Panel Survey: http://meps.ahrq.gov/mepsweb/


Footnotes

1 The Technical Notes provide more information on Healthy People 2020 statistical methods and issues.

2 Archived objectives are no longer being monitored due to lack of data source, changes in science, or replacement with other objectives.

3 Developmental objectives did not have a national baseline value.

4 Measurable objectives had a national baseline value.

5 Target met or exceeded—One of the following, as specified in the Midcourse Progress Table:
   » At baseline the target was not met or exceeded and the midcourse value was equal to or exceeded the target. (The percentage of targeted change achieved was equal to or greater than 100%.)
   » The baseline and midcourse values were equal to or exceeded the target. (The percentage of targeted change achieved was not assessed.)

6 Improving—One of the following, as specified in the Midcourse Progress Table:
   » Movement was toward the target, standard errors were available, and the percentage of targeted change achieved was statistically significant.
   » Movement was toward the target, standard errors were not available, and the objective had achieved 10% or more of the targeted change.

7 Little or no detectable change—One of the following, as specified in the Midcourse Progress Table:
   » Movement was toward the target, standard errors were available, and the percentage of targeted change achieved was not statistically significant.
   » Movement was toward the target, standard errors were not available, and the objective had achieved less than 10% of the targeted change.
   » Movement was away from the baseline and target, standard errors were available, and the percentage change relative to the baseline was not statistically significant.
   » Movement was away from the baseline and target, standard errors were not available, and the objective had moved less than 10% relative to the baseline.
   » There was no change between the baseline and the midcourse data point.

8 Getting worse—One of the following, as specified in the Midcourse Progress Table:
   » Movement was away from the baseline and target, standard errors were available, and the percentage change relative to the baseline was statistically significant.
   » Movement was away from the baseline and target, standard errors were not available, and the objective had moved 10% or more relative to the baseline.

9 Baseline only—The objective only had one data point, so progress toward target attainment could not be assessed.

Suggested Citation

### Table 17–1. Health Communication and Health Information Technology Objectives

<table>
<thead>
<tr>
<th>Objective Number</th>
<th>Objective Statement</th>
<th>Data Sources</th>
<th>Midcourse Data Availability</th>
</tr>
</thead>
<tbody>
<tr>
<td>HC/HIT-1.1</td>
<td>Increase the proportion of persons who report their health care provider always gave them easy-to-understand instructions about what to do to take care of their illness or health condition</td>
<td>Medical Expenditure Panel Survey (MEPS), AHRQ</td>
<td>![Red Light] ![Green Light] ![Blue Light]</td>
</tr>
<tr>
<td>HC/HIT-1.2</td>
<td>Increase the proportion of persons who report their health care provider always asked them to describe how they will follow the instructions</td>
<td>Medical Expenditure Panel Survey (MEPS), AHRQ</td>
<td>![Red Light] ![Green Light] ![Blue Light]</td>
</tr>
<tr>
<td>HC/HIT-1.3</td>
<td>Increase the proportion of persons who report their health care providers' office always offered help in filling out a form</td>
<td>Medical Expenditure Panel Survey (MEPS), AHRQ</td>
<td>![Red Light] ![Green Light] ![Blue Light]</td>
</tr>
<tr>
<td>HC/HIT-2.1</td>
<td>Increase the proportion of persons who report that their health care providers always listened carefully to them</td>
<td>Medical Expenditure Panel Survey (MEPS), AHRQ</td>
<td>![Red Light] ![Green Light] ![Blue Light]</td>
</tr>
<tr>
<td>HC/HIT-2.2</td>
<td>Increase the proportion of persons who report that their health care providers always explained things so they could understand them</td>
<td>Medical Expenditure Panel Survey (MEPS), AHRQ</td>
<td>![Red Light] ![Green Light] ![Blue Light]</td>
</tr>
<tr>
<td>HC/HIT-2.3</td>
<td>Increase the proportion of persons who report that their health care providers always showed respect for what they had to say</td>
<td>Medical Expenditure Panel Survey (MEPS), AHRQ</td>
<td>![Red Light] ![Green Light] ![Blue Light]</td>
</tr>
<tr>
<td>HC/HIT-2.4</td>
<td>Increase the proportion of persons who report that their health care providers always spent enough time with them</td>
<td>Medical Expenditure Panel Survey (MEPS), AHRQ</td>
<td>![Red Light] ![Green Light] ![Blue Light]</td>
</tr>
<tr>
<td>HC/HIT-3</td>
<td>Increase the proportion of persons who report that their health care providers always involved them in decisions about their health care as much as they wanted</td>
<td>Health Information National Trends Survey (HINTS), NIH/NCI</td>
<td>![Red Light] ![Green Light] ![Blue Light]</td>
</tr>
<tr>
<td>HC/HIT-4</td>
<td>(Developmental) Increase the proportion of patients whose doctor recommends personalized health information resources to help them manage their health</td>
<td>To be determined</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>HC/HIT-5.1</td>
<td>Increase the proportion of persons who use the Internet to keep track of personal health information, such as care received, test results, or upcoming medical appointments</td>
<td>Health Information National Trends Survey (HINTS), NIH/NCI</td>
<td>![Red Light] ![Green Light] ![Blue Light]</td>
</tr>
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<td>Objective Statement</td>
<td>Data Sources</td>
<td>Midcourse Data Availability</td>
</tr>
<tr>
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<td>--------------------------------------------------------------------------------------</td>
<td>--------------------------------------------------------</td>
<td>----------------------------</td>
</tr>
<tr>
<td>HC/HIT-5.2</td>
<td>Increase the proportion of persons who use the Internet to communicate with their health provider</td>
<td>Health Information National Trends Survey (HINTS), NIH/NCI</td>
<td>![Green Light]</td>
</tr>
<tr>
<td>HC/HIT-6.1</td>
<td>Increase the proportion of persons with access to the Internet</td>
<td>Health Information National Trends Survey (HINTS), NIH/NCI</td>
<td>![Green Light]</td>
</tr>
<tr>
<td>HC/HIT-6.2</td>
<td>Increase the proportion of persons with broadband access to the Internet</td>
<td>Health Information National Trends Survey (HINTS), NIH/NCI</td>
<td>![Green Light]</td>
</tr>
<tr>
<td>HC/HIT-6.3</td>
<td>Increase the proportion of persons who use mobile devices</td>
<td>Health Information National Trends Survey (HINTS), NIH/NCI</td>
<td>![Green Light]</td>
</tr>
<tr>
<td>HC/HIT-7</td>
<td>Increase the proportion of adults who report having friends or family members with whom they talk about their health</td>
<td>Health Information National Trends Survey (HINTS), NIH/NCI</td>
<td>![Green Light]</td>
</tr>
<tr>
<td>HC/HIT-8.1</td>
<td>Increase the proportion of health-related websites that meet three or more evaluation criteria for disclosing information that can be used to assess information reliability</td>
<td>National Quality Health Website Survey, ODPHP</td>
<td>![Green Light]</td>
</tr>
<tr>
<td>HC/HIT-8.2</td>
<td>Increase the proportion of health-related websites that follow established usability principles</td>
<td>National Quality Health Website Survey, ODPHP</td>
<td>![Green Light]</td>
</tr>
<tr>
<td>HC/HIT-9</td>
<td>Increase the proportion of online health information seekers who report easily accessing health information</td>
<td>Health Information National Trends Survey (HINTS), NIH/NCI</td>
<td>![Green Light]</td>
</tr>
<tr>
<td>HC/HIT-10</td>
<td>Increase the proportion of medical practices that use electronic health records</td>
<td>National Ambulatory Medical Care Survey–Electronic Health Records Survey (NAMCS–EHR)</td>
<td>![Green Light]</td>
</tr>
<tr>
<td>HC/HIT-11</td>
<td>(Archived) Increase the proportion of meaningful users of health information technology (HIT)</td>
<td>CDC Crisis and Emergency Risk Communication Best Practices Study, CDC/OADC</td>
<td>![Not Applicable]</td>
</tr>
<tr>
<td>HC/HIT-12.1</td>
<td>Increase the proportion of crisis and emergency risk messages embedded in print and broadcast news stories that explain what is known about the threat to human health</td>
<td>CDC Crisis and Emergency Risk Communication Best Practices Study, CDC/OADC</td>
<td>![Green Light]</td>
</tr>
<tr>
<td>Objective Number</td>
<td>Objective Statement</td>
<td>Data Sources</td>
<td>Midcourse Data Availability</td>
</tr>
<tr>
<td>------------------</td>
<td>--------------------------------------------------------------------------------------</td>
<td>------------------------------------------------------------------------------</td>
<td>----------------------------</td>
</tr>
<tr>
<td>HC/HIT-12.2</td>
<td>Increase the proportion of crisis and emergency risk messages embedded in print and broadcast news stories that explain what is NOT known about the threat to human health</td>
<td>CDC Crisis and Emergency Risk Communication Best Practices Study, CDC/OADC</td>
<td>Data Available</td>
</tr>
<tr>
<td>HC/HIT-12.3</td>
<td>Increase the proportion of crisis and emergency risk messages embedded in print and broadcast news stories that explain how or why a crisis or emergency event happened</td>
<td>CDC Crisis and Emergency Risk Communication Best Practices Study, CDC/OADC</td>
<td>Data Available</td>
</tr>
<tr>
<td>HC/HIT-12.4</td>
<td>Increase the proportion of crisis and emergency risk messages embedded in print and broadcast news stories that promote steps the reader or viewer can take to reduce their personal health threat</td>
<td>CDC Crisis and Emergency Risk Communication Best Practices Study, CDC/OADC</td>
<td>Data Available</td>
</tr>
<tr>
<td>HC/HIT-12.5</td>
<td>Increase the proportion of crisis and emergency risk messages embedded in print and broadcast news stories that express empathy about the threat to human health</td>
<td>CDC Crisis and Emergency Risk Communication Best Practices Study, CDC/OADC</td>
<td>Data Available</td>
</tr>
<tr>
<td>HC/HIT-12.6</td>
<td>Increase the proportion of crisis and emergency risk messages embedded in print and broadcast news stories that express commitment from the responsible or responding entity</td>
<td>CDC Crisis and Emergency Risk Communication Best Practices Study, CDC/OADC</td>
<td>Data Available</td>
</tr>
<tr>
<td>HC/HIT-13.1</td>
<td>Increase the number of state health departments that report using social marketing in health promotion and disease prevention programs</td>
<td>National Survey of Public Health Competencies in Social Marketing (NSPHCSM): Survey of State Health Departments</td>
<td>Data Available</td>
</tr>
<tr>
<td>HC/HIT-13.2</td>
<td>(Developmental) Increase the proportion of schools of public health and accredited master of public health (MPH) programs that offer one or more courses in social marketing</td>
<td>To be determined</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>HC/HIT-13.3</td>
<td>(Developmental) Increase the proportion of schools of public health and accredited MPH programs that offer workforce development activities in social marketing for public health practitioners</td>
<td>To be determined</td>
<td>Not Applicable</td>
</tr>
</tbody>
</table>
Table 17–2. Midcourse Progress for Measurable¹ Health Communication and Health Information Technology Objectives

<table>
<thead>
<tr>
<th>Objective Description</th>
<th>Baseline Value (Year)</th>
<th>Midcourse Value (Year)</th>
<th>Target</th>
<th>Movement Toward Target¹⁵</th>
<th>Movement Away From Baseline¹⁶</th>
<th>Movement Statistically Significant¹⁷</th>
</tr>
</thead>
<tbody>
<tr>
<td>HC/HIT-1.1 Persons whose health care provider gives easy-to-understand instructions (percent, 18+ years)</td>
<td>64.1% (2011)</td>
<td>65.8% (2012)</td>
<td>70.5%</td>
<td>26.6%</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>HC/HIT-1.2 Persons whose health care provider asks how instructions will be followed (percent, 18+ years)</td>
<td>24.4% (2011)</td>
<td>25.4% (2012)</td>
<td>26.9%</td>
<td>40.0%</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>HC/HIT-1.3 Persons whose health care provider offers help in filling out forms (percent, 18+ years)</td>
<td>14.8% (2011)</td>
<td>15.6% (2012)</td>
<td>16.3%</td>
<td>53.3%</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>HC/HIT-2.1 Persons reporting that their health care provider always listened carefully to them (percent, 18+ years)</td>
<td>59.0% (2007)</td>
<td>63.1% (2012)</td>
<td>65.0%</td>
<td>68.3%</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>HC/HIT-2.2 Persons reporting that their health care provider always explained things so they can understand (percent, 18+ years)</td>
<td>60.0% (2007)</td>
<td>62.3% (2012)</td>
<td>66.0%</td>
<td>38.3%</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>HC/HIT-2.3 Persons reporting that their health care provider always showed respect for what they have to say (percent, 18+ years)</td>
<td>62.0% (2007)</td>
<td>66.4% (2012)</td>
<td>68.2%</td>
<td>71.0%</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>HC/HIT-2.4 Persons reporting that their health care provider always spent enough time with them (percent, 18+ years)</td>
<td>49.0% (2007)</td>
<td>53.5% (2012)</td>
<td>54.0%</td>
<td>90.0%</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>HC/HIT-3 Persons reporting that their health care provider always involved them in health care decisions (percent, 18+ years)</td>
<td>51.6% (2007)</td>
<td>52.1% (2014)</td>
<td>56.8%</td>
<td>9.6%</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>HC/HIT-5.1 Persons using the Internet to keep track of personal health information (percent, 18+ years)</td>
<td>14.3% (2007)</td>
<td>28.1% (2014)</td>
<td>15.7%</td>
<td>985.7%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HC/HIT-5.2 Persons using the Internet to communicate with their health care provider (percent, 18+ years)</td>
<td>13.6% (2007)</td>
<td>29.7% (2014)</td>
<td>15.0%</td>
<td>1150.0%</td>
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<td></td>
</tr>
<tr>
<td>HC/HIT-6.1 Persons with access to the Internet (percent, 18+ years)</td>
<td>68.5% (2007)</td>
<td>78.3% (2014)</td>
<td>75.4%</td>
<td>142.0%</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>HC/HIT-6.2 Persons with broadband Internet access (percent, 18+ years)</td>
<td>75.6% (2007)</td>
<td>67.4% (2014)</td>
<td>83.2%</td>
<td>10.8%</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>HC/HIT-6.3 Persons using mobile devices for Internet access (percent, 18+ years)</td>
<td>6.7% (2007)</td>
<td>56.8% (2014)</td>
<td>7.4%</td>
<td>7157.0%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HC/HIT-7 Adults who talk to friends and family members about their health (percent, 18+ years)</td>
<td>79.5% (2007)</td>
<td>88.6% (2013)</td>
<td>87.5%</td>
<td>113.7%</td>
<td>Yes</td>
<td></td>
</tr>
</tbody>
</table>

¹ Movement data is based on 2013–2017 trends.
¹² Target met or exceeded.
¹³ Improving.
¹⁴ Little or no detectable change.
¹⁵ Getting worse.
¹⁶ Baseline only.
¹⁷ Informational.
## Table 17–2. Midcourse Progress for Measurable Health Communication and Health Information Technology Objectives—Continued

<table>
<thead>
<tr>
<th>Objective Description</th>
<th>Baseline Value (Year)</th>
<th>Midcourse Value (Year)</th>
<th>Target</th>
<th>Movement Toward Target</th>
<th>Movement Away From Baseline</th>
<th>Movement Statistically Significant</th>
</tr>
</thead>
<tbody>
<tr>
<td>HC/HIT-8.1 Health websites meeting three or more evaluation criteria for assessing information reliability (percent)</td>
<td>58.0% (2014)</td>
<td>70.5%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HC/HIT-8.2 Proportion of health-related websites that follow established usability principles</td>
<td>42.0% (2014)</td>
<td>55.7%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HC/HIT-9 Internet users who can easily access health information (percent, 18+ years)</td>
<td>37.3% (2007)</td>
<td>41.0% (2014)</td>
<td></td>
<td>13.5%</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>HC/HIT-10 Office-based medical practices using electronic health records (percent)</td>
<td>25.0% (2007)</td>
<td>68.9% (2013)</td>
<td>27.5%</td>
<td>1756.0%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HC/HIT-12.1 News stories on foodborne outbreaks and natural disasters that explain known threats to human health (percent)</td>
<td>83.5% (2010–2011)</td>
<td>88.9%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HC/HIT-12.2 News stories on foodborne outbreaks and natural disasters that explain unknown threats to human health (percent)</td>
<td>21.4% (2010–2011)</td>
<td>27.5%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HC/HIT-12.3 News stories on foodborne outbreaks and natural disasters that explain how the event occurred (percent)</td>
<td>15.5% (2010–2011)</td>
<td>20.9%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HC/HIT-12.4 News stories on foodborne outbreaks and natural disasters that promote steps to reduce risk (percent)</td>
<td>25.4% (2010–2011)</td>
<td>31.8%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HC/HIT-12.5 News stories on foodborne outbreaks and natural disasters that express empathy about the health risk (percent)</td>
<td>4.6% (2010–2011)</td>
<td>7.7%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HC/HIT-12.6 News stories on foodborne outbreaks and natural disasters that express commitment from the responsible party (percent)</td>
<td>16.4% (2010–2011)</td>
<td>21.9%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HC/HIT-13.1 State health departments using social marketing in health promotion/disease prevention programs (number)</td>
<td>8 (2012)</td>
<td>50</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 17–2. Midcourse Progress for Measurable Health Communication and Health Information Technology Objectives—Continued

NOTES
See HealthyPeople.gov for all Healthy People 2020 data. The Technical Notes provide more information on the measures of progress.

FOOTNOTES
1Measurable objectives had a national baseline value.
2Target met or exceeded:
   aAt baseline the target was not met or exceeded and the midcourse value was equal to or exceeded the target. (The percentage of targeted change achieved was equal to or greater than 100%.)
   bThe baseline and midcourse values were equal to or exceeded the target. (The percentage of targeted change achieved was not assessed.)
3Improving:
   aMovement was toward the target, standard errors were available, and the percentage of targeted change achieved was statistically significant.
   bMovement was toward the target, standard errors were not available, and the objective had achieved 10% or more of the targeted change.
4Little or no detectable change:
   aMovement was toward the target, standard errors were available, and the percentage of targeted change achieved was not statistically significant.
   bMovement was toward the target, standard errors were not available, and the objective had achieved less than 10% of the targeted change.
   cMovement was away from the baseline and target, standard errors were available, and the percentage change relative to the baseline was not statistically significant.
   dMovement was away from the baseline and target, standard errors were not available, and the objective had moved less than 10% relative to the baseline.
   eThere was no change between the baseline and the midcourse data point.
5Getting worse:
   aMovement was away from the baseline and target, standard errors were available, and the percentage change relative to the baseline was statistically significant.
   bMovement was away from the baseline and target, standard errors were not available, and the objective had moved 10% or more relative to the baseline.
6Baseline only: The objective only had one data point, so progress toward target attainment could not be assessed.
7Informational: A target was not set for this objective, so progress toward target attainment could not be assessed.
8For objectives that moved toward their targets, movement toward the target was measured as the percentage of targeted change achieved (unless the target was already met or exceeded at baseline):

   \[
   \text{Percentage of targeted change achieved} = \frac{\text{Midcourse value} - \text{Baseline value}}{\text{HP2020 target} - \text{Baseline value}} \times 100
   \]

9For objectives that moved away from their baselines and targets, movement away from the baseline was measured as the magnitude of the percentage change from baseline:

   \[
   \text{Magnitude of percentage change from baseline} = \left| \frac{\text{Midcourse value} - \text{Baseline value}}{\text{Baseline value}} \right| \times 100
   \]

10Statistical significance was tested when the objective had a target and at least two data points, standard errors of the data were available, and a normal distribution could be assumed. Statistical significance of the percentage of targeted change achieved or the magnitude of the percentage change from baseline was assessed at the 0.05 level using a normal one-sided test.

DATA SOURCES
HC/HIT-1.1 Medical Expenditure Panel Survey (MEPS), AHRQ
HC/HIT-1.2 Medical Expenditure Panel Survey (MEPS), AHRQ
HC/HIT-1.3 Medical Expenditure Panel Survey (MEPS), AHRQ
HC/HIT-2.1 Medical Expenditure Panel Survey (MEPS), AHRQ
HC/HIT-2.2 Medical Expenditure Panel Survey (MEPS), AHRQ
HC/HIT-2.3 Medical Expenditure Panel Survey (MEPS), AHRQ
HC/HIT-2.4 Medical Expenditure Panel Survey (MEPS), AHRQ
HC/HIT-3 Health Information National Trends Survey (HINTS), NIH/NCI
HC/HIT-5.1 Health Information National Trends Survey (HINTS), NIH/NCI
HC/HIT-5.2 Health Information National Trends Survey (HINTS), NIH/NCI
HC/HIT-6.1 Health Information National Trends Survey (HINTS), NIH/NCI
HC/HIT-6.2 Health Information National Trends Survey (HINTS), NIH/NCI
HC/HIT-6.3 Health Information National Trends Survey (HINTS), NIH/NCI
HC/HIT-7 Health Information National Trends Survey (HINTS), NIH/NCI
HC/HIT-8.1 National Quality Health Website Survey, ODPHP
HC/HIT-8.2 National Quality Health Website Survey, ODPHP
HC/HIT-9 Health Information National Trends Survey (HINTS), NIH/NCI
HC/HIT-10 National Ambulatory Medical Care Survey–Electronic Health Records Survey (NAMCS–EHR)
HC/HIT-12.1 CDC Crisis and Emergency Risk Communication Best Practices Study, CDC/OADC
HC/HIT-12.2 CDC Crisis and Emergency Risk Communication Best Practices Study, CDC/OADC
HC/HIT-12.3 CDC Crisis and Emergency Risk Communication Best Practices Study, CDC/OADC
HC/HIT-12.4 CDC Crisis and Emergency Risk Communication Best Practices Study, CDC/OADC
HC/HIT-12.5 CDC Crisis and Emergency Risk Communication Best Practices Study, CDC/OADC
HC/HIT-12.6 CDC Crisis and Emergency Risk Communication Best Practices Study, CDC/OADC
Table 17–3. Midcourse Health Disparities\(^1\) for Population-based Health Communication and Health Information Technology Objectives

Most favorable (least adverse) and least favorable (most adverse) group rates and summary disparity ratios\(^2,3\) for selected characteristics at the midcourse data point

**LEGEND**

- 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.

<table>
<thead>
<tr>
<th>Characteristics and Groups</th>
<th>Sex</th>
<th>Race and Ethnicity</th>
<th>Education(^4)</th>
<th>Family Income(^5)</th>
<th>Disability</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population-based Objectives</td>
<td>Male</td>
<td>Female</td>
<td>Summary Disparity Ratio(^1)</td>
<td>American Indian or Alaska Native</td>
<td>Asian</td>
<td>Native Hawaiian or other Pacific Islander</td>
</tr>
<tr>
<td>HC/HIT-1.1 Persons whose health care provider gives easy-to-understand instructions (percent, 18+ years)</td>
<td></td>
<td></td>
<td>1.006</td>
<td>1.036</td>
<td>1.090*</td>
<td>1.086*</td>
</tr>
<tr>
<td>HC/HIT-1.2 Persons whose health care provider asks how instructions will be followed (percent, 18+ years)</td>
<td></td>
<td></td>
<td>1.061</td>
<td>1.081</td>
<td>1.256</td>
<td>1.454*</td>
</tr>
<tr>
<td>HC/HIT-2.1 Persons reporting that their health care provider always listened carefully to them (percent, 18+ years)</td>
<td></td>
<td></td>
<td>1.020</td>
<td>1.118</td>
<td>1.118</td>
<td>1.118</td>
</tr>
<tr>
<td>HC/HIT-2.2 Persons reporting that their health care provider always explained things so they can understand (percent, 18+ years)</td>
<td></td>
<td></td>
<td>1.013</td>
<td>1.131*</td>
<td>1.131*</td>
<td>1.131*</td>
</tr>
<tr>
<td>HC/HIT-2.3 Persons reporting that their health care provider always showed respect for what they have to say (percent, 18+ years)</td>
<td></td>
<td></td>
<td>1.002</td>
<td>1.076</td>
<td>1.076</td>
<td>1.076</td>
</tr>
<tr>
<td>HC/HIT-2.4 Persons reporting that their health care provider always spent enough time with them (percent, 18+ years)</td>
<td></td>
<td></td>
<td>1.036*</td>
<td>1.093</td>
<td>1.093</td>
<td>1.093</td>
</tr>
</tbody>
</table>

\(^1\)HEALTHY PEOPLE 2020 MIDCOURSE REVIEW
### Table 17–3. Midcourse Health Disparities for Population-based Health Communication and Health Information Technology Objectives—Continued

Most favorable (least adverse) and least favorable (most adverse) group rates and summary disparity ratios\(^2,3\) for selected characteristics at the midcourse data point

**LEGEND**

- 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

<table>
<thead>
<tr>
<th>Population-based Objectives</th>
<th>Sex</th>
<th>Race and Ethnicity</th>
<th>Education(^4)</th>
<th>Family Income(^5)</th>
<th>Disability</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>HC/HIT-3</strong> Persons reporting that their health care provider always involved them in health care decisions (percent, 18+ years) (2014)</td>
<td>Male</td>
<td>Female</td>
<td>American Indian or Alaska Native</td>
<td>Asian</td>
<td>Native Hawaiian or other Pacific Islander</td>
<td>Hispanic or Latino</td>
</tr>
<tr>
<td><strong>HC/HIT-5.1</strong> Persons using the Internet to keep track of personal health information (percent, 18+ years) (2014)</td>
<td>Male</td>
<td>Female</td>
<td>American Indian or Alaska Native</td>
<td>Asian</td>
<td>Native Hawaiian or other Pacific Islander</td>
<td>Hispanic or Latino</td>
</tr>
<tr>
<td><strong>HC/HIT-5.2</strong> Persons using the Internet to communicate with their health care provider (percent, 18+ years) (2014)</td>
<td>Male</td>
<td>Female</td>
<td>American Indian or Alaska Native</td>
<td>Asian</td>
<td>Native Hawaiian or other Pacific Islander</td>
<td>Hispanic or Latino</td>
</tr>
<tr>
<td><strong>HC/HIT-6.1</strong> Persons with access to the Internet (percent, 18+ years) (2014)</td>
<td>Male</td>
<td>Female</td>
<td>American Indian or Alaska Native</td>
<td>Asian</td>
<td>Native Hawaiian or other Pacific Islander</td>
<td>Hispanic or Latino</td>
</tr>
<tr>
<td><strong>HC/HIT-6.2</strong> Persons with broadband Internet access (percent, 18+ years) (2014)</td>
<td>Male</td>
<td>Female</td>
<td>American Indian or Alaska Native</td>
<td>Asian</td>
<td>Native Hawaiian or other Pacific Islander</td>
<td>Hispanic or Latino</td>
</tr>
<tr>
<td><strong>HC/HIT-6.3</strong> Persons using mobile devices for Internet access (percent, 18+ years) (2014)</td>
<td>Male</td>
<td>Female</td>
<td>American Indian or Alaska Native</td>
<td>Asian</td>
<td>Native Hawaiian or other Pacific Islander</td>
<td>Hispanic or Latino</td>
</tr>
<tr>
<td><strong>HC/HIT-7</strong> Adults who talk to friends and family members about their health (percent, 18+ years) (2013)</td>
<td>Male</td>
<td>Female</td>
<td>American Indian or Alaska Native</td>
<td>Asian</td>
<td>Native Hawaiian or other Pacific Islander</td>
<td>Hispanic or Latino</td>
</tr>
<tr>
<td><strong>HC/HIT-9</strong> Internet users who can easily access health information (percent, 18+ years) (2014)</td>
<td>Male</td>
<td>Female</td>
<td>American Indian or Alaska Native</td>
<td>Asian</td>
<td>Native Hawaiian or other Pacific Islander</td>
<td>Hispanic or Latino</td>
</tr>
</tbody>
</table>
### Table 17–3. Midcourse Health Disparities for Population-based Health Communication and Health Information Technology Objectives—Continued

#### NOTES
See HealthyPeople.gov for all Healthy People 2020 data. The Technical Notes provide more information on the measures of disparities.

#### FOOTNOTES
1. Health disparities were assessed among population groups within specified demographic characteristics (sex, race and ethnicity, educational attainment, etc.). This assessment did not include objectives that were not population-based, such as those based on states, worksites, or those monitoring the number of events.
2. When there were only two groups (e.g., male and female), the **summary disparity ratio** was the ratio of the higher to the lower rate.
3. When there were three or more groups (e.g., white non-Hispanic, black non-Hispanic, Hispanic) and the most favorable rate ($R_b$) was the highest rate, the **summary disparity ratio** was calculated as $R_b / \bar{R}$, where $\bar{R}$ = the average of the rates for all other groups. When there were three or more groups and the most favorable rate was the lowest rate, the summary disparity ratio was calculated as $\bar{R} / R_b$.
4. Unless otherwise footnoted, data do not include persons under age 25 years.

#### DATA SOURCES
- HC/HIT-1.1 Medical Expenditure Panel Survey (MEPS), AHRQ
- HC/HIT-1.2 Medical Expenditure Panel Survey (MEPS), AHRQ
- HC/HIT-1.3 Medical Expenditure Panel Survey (MEPS), AHRQ
- HC/HIT-2.1 Medical Expenditure Panel Survey (MEPS), AHRQ
- HC/HIT-2.2 Medical Expenditure Panel Survey (MEPS), AHRQ
- HC/HIT-2.3 Medical Expenditure Panel Survey (MEPS), AHRQ
- HC/HIT-2.4 Medical Expenditure Panel Survey (MEPS), AHRQ
- HC/HIT-3 Health Information National Trends Survey (HINTS), NIH/NCI
- HC/HIT-5.1 Health Information National Trends Survey (HINTS), NIH/NCI
- HC/HIT-5.2 Health Information National Trends Survey (HINTS), NIH/NCI
- HC/HIT-6.1 Health Information National Trends Survey (HINTS), NIH/NCI
- HC/HIT-6.2 Health Information National Trends Survey (HINTS), NIH/NCI
- HC/HIT-6.3 Health Information National Trends Survey (HINTS), NIH/NCI
- HC/HIT-7 Health Information National Trends Survey (HINTS), NIH/NCI
- HC/HIT-9 Health Information National Trends Survey (HINTS), NIH/NCI