

Addressing Health Equity and Social Determinants of Health Through Healthy People 2030

Cynthia A. Gómez, PhD; Dushanka V. Kleinman, DDS, MScD; Nico Pronk, PhD, MA, FASCM, FAWHP; Glenda L. Wrenn Gordon, MD, MSHP, FAPA; Emmeline Ochiai, MPH; Carter Blakey, BS; Ayanna Johnson, MSPH; Karen H. Brewer, MPH

ABSTRACT

The evolution of Healthy People reflects growing awareness of health inequities over the life course. Each decade, the initiative has gained understanding of how the nation can achieve health and well-being. To inform Healthy People 2030's visionary goal of achieving health equity in the coming decade, the Secretary's Advisory Committee on National Health Promotion and Disease Prevention Objectives for 2030 (Secretary's Advisory Committee) provided the US Department of Health and Human Services with guidance on key terms, frameworks, and measurement for health equity. Conditions in the environments in which people are born, live, learn, work, play, worship, and age influence health and well-being outcomes, functioning, and quality-of-life outcomes and risks and are mostly responsible for health inequities. No single individual, organization, community, or sector has sole ownership, accountability, or capacity to sustain the health and well-being of an entire population. The COVID-19 pandemic in the United States highlights underlying inequities and disparities in health and health care across segments of the population. Contributing factors that were known prior to the pandemic have led to major discrepancies in rates of infection and death. To reduce health disparities and advance health equity, systems approaches—designed to shift interconnected aspects of public health problems—are needed.

KEY WORDS: health disparities, health equity, Healthy People 2030, social determinants of health

Over 4 decades, the Healthy People initiative has played an integral part in the public health system of the United States, blending its function as a federal-level strategy for health

promotion and disease prevention with its national roles as a leader and provider of information.^{1,2} State-, local-, and community-level users employ Healthy People to guide their own health-related policy and programmatic agendas. Healthy People is a foundation for many state health plans, a guidepost for progress, and a source of needed data, tools, and resources.

The evolution of Healthy People reflects growing awareness of the problem of health inequities over the life course. Each successive decade of the initiative has expressed a deeper understanding of how to achieve health and well-being for the nation.³ Advances have included identifying causes of and differences in health outcomes across US population groups and investigating how to address them. The progression is summarized in Table 1. The Healthy People 2030 framework guides diverse, distinct disease prevention and health promotion efforts throughout the United States toward a common goal: improving the health and well-being of all people.⁵

Health Equity and Social Determinants of Health as Pivotal Concepts in Healthy People

A robust evidence base has accumulated over the past 20 years, documenting that conditions in the

Author Affiliations: Secretary's Advisory Committee on National Health Promotion and Disease Prevention Objectives for 2030 (Dr Gómez, Dr Kleinman, Dr Pronk, and Dr Wrenn Gordon); Office of Disease Prevention and Health Promotion, Office of the Assistant Secretary for Health, Office of the Secretary, US Department of Health and Human Services, Rockville, Maryland (Ms Ochiai, Ms Blakey, and Ms Johnson [former staff]); and Health ConTexts, LLC, Silver Spring, Maryland (Ms Brewer).

This article is based on a brief that was prepared by the Secretary's Advisory Committee on National Health Promotion and Disease Prevention Objectives for 2030 and is available online at HealthyPeople.gov.

The authors declare no conflicts of interest.

Supplemental digital content is available for this article. Direct URL citations appear in the printed text and are provided in the HTML and PDF versions of this article on the journal's Web site (<http://www.JPHMP.com>).

This is an open-access article distributed under the terms of the Creative Commons Attribution-Non Commercial-No Derivatives License 4.0 (CCBY-NC-ND), where it is permissible to download and share the work provided it is properly cited. The work cannot be changed in any way or used commercially without permission from the journal.

Correspondence: Emmeline Ochiai, MPH, Office of Disease Prevention and Health Promotion, Office of the Assistant Secretary for Health, Office of the Secretary, US Department of Health and Human Services, 1101 Wootton Pkwy, Ste 420, Rockville, MD 20852 (Emmeline.Ochiai@hhs.gov).

Copyright © 2021 The Authors. Published by Wolters Kluwer Health, Inc.

DOI: 10.1097/PHH.0000000000001297

TABLE 1
The Evolution of Health Equity Within the Healthy People Initiative^a

Focus on Health Equity Within Initiative ⁴	
Healthy People 1990	At its inception in 1980, Healthy People (a response to <i>Healthy People: The Surgeon General's Report on Health Promotion and Disease Prevention</i> , 1979) had 2 overarching goals: to decrease mortality over the life course and to increase independence among older adults.
Healthy People 2000	Healthy People 2000 had 3 overarching goals, one of which was to "reduce health disparities."
Healthy People 2010	Healthy People 2010 committed the Nation to "eliminate health disparities." That pledge prompted Public Law No. 106-525 (the <i>Minority Health and Health Disparities Research and Education Act of 2000</i>), requiring a study of HHS data collection systems and practices relating to data on race or ethnicity. A final review of progress on objectives at the end of the decade revealed that in many cases health disparities had not been eliminated and in some instances had increased.
Healthy People 2020	Healthy People 2020 adopted the concept of health inequity for the first time. This was a change in the initiative's thinking about differences in disease prevention and health promotion outcomes across populations.
Healthy People 2030	In Healthy People 2030, all 5 of its overarching goals relate to achieving health equity. They include: <ul style="list-style-type: none"> • Attain healthy, thriving lives and well-being, free of preventable disease, disability, injury, and premature death. • Eliminate health disparities, achieve health equity, and attain health literacy to improve the health and well-being of all. • Create social, physical, and economic environments that promote attaining full potential for health and well-being for all. • Promote healthy development, healthy behaviors, and well-being across all life stages. • Engage leadership, key constituents, and the public across multiple sectors to take action and design policies that improve the health and well-being of all.

Abbreviation: HHS, US Department of Health and Human Services.

^a As part of *Healthy People 2030's* development, the Secretary's Advisory Committee on *National Health Promotion and Disease Prevention Objectives for 2030* (the *Committee*) and external subject matter experts prepared an issue brief that lays the groundwork for the visionary goal of achieving health equity in the coming decade. The issue brief presents key terms, frameworks, and measurement for health equity and is the basis for this article.⁴

environments in which people are born, live, learn, work, play, worship, and age—the social determinants of health⁶—influence a wide range of health and well-being outcomes, functioning, and quality-of-life outcomes and risks.^{6,7} The social determinants of health are shaped by distributions of money, power, and resources at global, national, and community levels. They are “mostly responsible for health inequities.”^{8,9}

Healthy People 2030 envisions “a society in which all people can achieve their full potential for health and well-being across the lifespan.”⁴ One of Healthy People 2030’s foundational principles is that “achieving health and well-being requires eliminating health disparities, achieving health equity, and attaining health literacy.” Healthy People 2030 advances these outcomes by increasing its crosscutting emphasis on health equity throughout the initiative.

Health Equity: Key Concepts and Related Definitions

Multiple definitions of health equity exist. Ten years ago, Healthy People 2020 defined health equity as “attainment of the highest level of health for all people,”¹⁰ suggesting that people should have equal access to opportunities to lead healthy lives. The past decade’s public health research and practice have shown that health equity entails more than the “opportunity” for health and well-being. *Fair and just access* to opportunity is needed.

A 2017 report for the Robert Wood Johnson Foundation went beyond the notion of “access” and added the critical role of taking action to remove barriers. It states,

Health equity means that everyone has a fair and just opportunity to be healthy. This requires removing obstacles to health, such as poverty, discrimination, and their consequences, including powerlessness and lack of access to good jobs with

fair pay, quality education and housing, safe environments, and health care.¹¹

The Secretary’s Advisory Committee suggested that these core ideas be included in a definition of health equity for Healthy People 2030:

- Attaining the highest level of health for all people;
- Valuing everyone equally;
- Focusing on ongoing societal efforts to address avoidable inequities, as well as historical and contemporary injustices;
- Eliminating health and health care disparities; and
- Ensuring fair and just access to opportunity.

Health equity is associated with other concepts (eg, health disparities, health care disparities, health inequalities, health inequities). Distinctions among these terms are explained in Table 2. There are important differences between inequality and inequity in health. Some health *inequalities* are unavoidable because they can be attributed to biological differences or free choice. *Health inequities* are avoidable.^{12,13}

Strategies to Achieve Health Equity in the United States

No single individual, organization, community, or sector has sole ownership, accountability, or capacity to sustain the health and well-being of an entire population.^{14,15} The education, housing, health care, justice, and other sectors should play roles in giving everyone a fair and just chance to be healthy. To reduce health disparities and advance health equity, systems approaches—designed to shift interconnected aspects of public health problems—are needed. Examples might include aligning society’s actions to advance health literacy with the complex factors affecting people’s ability to find, understand and use health information, or supporting health and well-being in all policies and laws.

TABLE 2

Distinctions Between Health Equity and Related Terms

Several terms that relate to health equity are sometimes used inappropriately or interchangeably. The following definitions help clarify distinctions between them⁴:

Health disparities	Differences in health and well-being outcomes without an identified cause among groups of people.
Health care disparities	Differences in quality of health care received that are not due to access-related factors or clinical needs, preferences, or appropriateness of intervention.
Health inequalities	Differences in health status, or in the distribution of health determinants among different population groups (eg, differences in mobility between older and younger populations, or in mortality rates between people from different social classes).
Health inequities	Differences in health and well-being outcomes that are avoidable, unfair, and unjust. Health inequities are affected by social, economic, and environmental conditions.

Efforts to increase social cohesion, defined as “a group or population that works toward the well-being of all of its members, fights exclusion and marginalization, creates a sense of belonging, and promotes trust,”¹⁶ will be essential for sharing responsibility to protect each other and promote our nation’s health.^{14,17–19} Social cohesion encompasses the domains of social equality, social inclusion, social development, social capital, and social diversity.²⁰ Since the latter half of the 20th century, social capital and civic engagement have been in decline in the United States.²¹ Empowered collaborations that act based on community-specific assessments of local assets and needs and that invite the participation of all concerned have carried out effective interventions to increase social cohesion in US communities.²²

Cross-departmental coordination of innovative federal programs to address social determinants of health is a step on the path to health equity.²³ Additional collaborations are needed across all sectors and at all levels. These actions help expand the public’s understanding of health as encompassing the well-being of communities.²⁴

COVID-19: A Case Study in the Repercussions of Health Inequity

Early stages of the COVID-19 pandemic in the United States highlight underlying inequities and disparities in health and health care across segments of the population. Contributing factors that were known prior to the pandemic have led to major discrepancies in rates of infection and death among racial and ethnic minority communities compared with White communities. As of spring 2020, preliminary data show disproportionately high burdens of illness and death among these groups that also share higher rates of poverty and overcrowded living conditions.²⁵

The Centers for Disease Control and Prevention released a limited data set of 1452 patients who were hospitalized with COVID-19 in 14 states from March 1 to March 30, 2020. An analysis compared characteristics of hospitalized patients with those of populations from the same geographic areas.²⁶ It found that a third (33%) of hospitalized COVID-19 patients were Black, while fewer than one in 5 (18%) people in these areas were Black. Similarly, the San Francisco Department of Public Health reports that Latinos comprised 42% of confirmed COVID-19 cases as of May 12, 2020, but Census Bureau data indicate Latinos account for 15% of San Francisco’s population.^{27,28} In New Mexico, 57% of COVID-19 cases and 50% of COVID-19 deaths occurred among Native Americans, although they comprise 11% of the state’s population.^{29,30}

Patients with preexisting conditions, such as high blood pressure, obesity, diabetes, heart disease, and chronic lung disease, are at a greater risk of serious illness due to COVID-19. These conditions are more common among African Americans than in the general population.^{31,32} Structural factors (eg, poverty, decaying physical and social structures, limited opportunities) that have shaped long-standing racial disparities in rates of chronic disease also drive vulnerability to serious illness from COVID-19 infection.³³

In this example of “syndemics,” 2 or more epidemics interact synergistically, leading to excess burden of disease within racial and ethnic minority populations.³⁴ African Americans and Latinos are more likely than Whites to live in densely populated areas, use public transportation, and/or work in jobs on the front lines, such as in grocery stores, food service, or transportation. Racial and ethnic minority communities, including those that are relatively affluent, are more likely to be exposed to air pollution and other environmental hazards.^{35,36} These trends highlight the unacceptable price of failing to address health inequities in the United States (Table 3).

Interventions to Address Health Inequity—Programs, Policies

The focus of Healthy People 2030 on health equity continues the shift away from disease outcomes, which are often attributed to individual behaviors. A health equity orientation examines structural and systematic inequities that contribute to avoidable health disparities, as well as evolving social conditions. Prejudice and discrimination lead to unequal and unfair practices within public and private institutions, broader health systems, and society. Eliminating health inequities and health care disparities requires short- and long-term actions such as:

- Attending to root causes of health inequalities and health disparities (ie, social and environmental determinants of health, health care disparities, and health inequities);
- Attending to groups that have faced major obstacles to health (eg, those associated with socioeconomic disadvantages and historical and contemporary injustices);
- Promoting equal opportunities for all people to be healthy and to seek the highest level of health and well-being possible (ie, health equity) by eliminating prejudice and discrimination fueled by racism, classism, sexism, ageism, ableism, and other forms of oppression;
- Distributing socioeconomic resources needed to be healthy in a way that progressively reduces

TABLE 3
Case Study—Health Inequity and the Unfolding COVID-19 Pandemic

Determinant of Health	Root Cause	Health Impact: <i>COVID Vulnerability</i>
Housing	Poor construction and maintenance; pests and mold exposures	<ul style="list-style-type: none"> • Higher asthma prevalence • Poor air quality • Limited capacity to maintain hygiene requirements
	Housing affordability	<ul style="list-style-type: none"> • Housing burden (risk of eviction, inability to socially distance)
	Densely packed areas; multigenerational housing	<ul style="list-style-type: none"> • Inability to socially distance
Work conditions	Predominate service positions; lower salaries; lack of paid sick leave	<ul style="list-style-type: none"> • Inability to socially distance • Higher likelihood exposure to asymptomatic and symptomatic cases, given crowded work environments • Inability to “stay at home” due to economic need
Health literacy	Inconsistent messages causing confusion; lack of recommendations provided by individuals who reflect the community population	<ul style="list-style-type: none"> • Lack of trust in messenger • Lack of clarity in recommended self-care practices • Language barriers • Education barriers
Health status	Higher rates of hypertension, heart disease, diabetes, lung disease	<ul style="list-style-type: none"> • Vulnerabilities due to predisposing health conditions

health inequalities and disparities and improves health and well-being for all; and

- Maintaining a desired state of equity by continuing efforts after health inequities and avoidable health inequalities are eliminated.

Policies and practices that reduce or eliminate root causes of health inequities and health care disparities would not eliminate all health disparities, but they would significantly reduce health inequalities and move the nation closer to health equity. Structural inequities in social, physical, economic, or political environments shape or limit health behaviors and outcomes.³⁷ Structural inequities can include economic instability, limited opportunities for education and employment, racism, discrimination, and inadequate access to resources (eg, healthy food, clean water, spaces for physical activity, transportation, and health care). These problems can be countered through diverse strategies that deal with factors such as early childhood education, tax policies, housing access, neighborhood environments, and structural racism.

Interventions to promote good health in individuals and communities can include improving housing standards, reducing food insecurity, reducing economic insecurity and unemployment, increasing levels of educational attainment, and reducing stress from discriminatory practices.³⁸ The Healthy People Web site offers evidence-based resources on addressing social determinants of health within 5 domains: (1) Economic Stability, (2) Education, (3) Health and Health

Care, (4) Neighborhood and Built Environment, and (5) Social and Community Context.³⁹

The COVID-19 pandemic has revealed that these factors are essential to the health of the entire population. It provides clear evidence of the urgent need for health equity among individuals and communities. Just as all individuals are susceptible to COVID-19, the health of the entire society is placed at risk when some of its members are unable to afford or access medical attention when they are sick, lack paid medical leave to stay home from work during illness, or are food insecure and therefore unable to withstand a week of economic shutdown.

Measuring Health Equity

A series of health equity measures can assess changes in health equity, reductions in health inequality, and long-term improvements in physical, social, and economic conditions and health outcomes. Other measures may track implementation of policies and programs to reduce health inequities and health inequalities. Braveman and colleagues⁴⁰ suggest 3 basic components of health equity and inequality measures:

1. An indicator of health or a modifiable determinant of health (eg, health care, living conditions, or policies that shape them);
2. An indicator of social position (categorizing people into groups based on social advantage or disadvantage, eg, income, education, ethnic group, or gender); and

3. A method for comparing indicators for health or health determinants across different social positions.

Braveman and colleagues⁴⁰ further recommend a systematic approach to conducting such measurement and that can inform efforts to reduce the gap. Their approach can be summarized as follows:

- Choose the health or health-related indicators of concern; categorize people by social position.
- Calculate rates of the health indicator in each social grouping and display this graphically.
- Calculate rate ratios (eg, relative risks) and rate differences to compare each stratum with the a priori determined most advantaged stratum that corresponds to it (eg, all other income groups compared with the highest income group).
- Examine changes over time in the rate ratios and rate differences; if feasible, use a summary measure to assess multiple parameters at the same time.
- Conduct multivariate analyses in the overall sample and within strata shown to be at elevated risk compared with the most advantaged stratum, to identify issues warranting further attention through research or action.

Braveman and colleagues⁴⁰ suggest comparing the population group of interest for a health indicator with groups that are in the most advantaged social position, instead of comparing with a group that has average measures or the group with the best level. (For clarification, see Supplemental Digital Content SDC1, available at <http://links.lww.com/JPHMP/A745>.) In the United States, one could consider the most advantaged social position to be a high-income, highly educated White male due to historical and current biases. The health of the most advantaged social position shows a minimum level that should be biologically, socially, and economically possible for everyone.

Resources that inform effective interventions for social determinants of health include the PhenX (phenotypes and exposures) Toolkit released by the National Institutes of Health and the National Institute of Minority Health and Disparities.⁴¹ In addition, Healthy People 2030 identifies objectives that are relevant to the COVID-19 pandemic response (Table 4; see Supplemental Digital Content SDC2, available at <http://links.lww.com/JPHMP/A746>).

Actions at the local level require organizations from different sectors to work together on issues that they believe are important in their community. For instance, expanding data availability at the local level may be possible to generate hyperlocal data to

improve health and well-being by linking health data with relevant, nonhealth data at the local level (eg, food, grocery stores, health insurance). While Table 4 provides national data in traditional rate ratios of disparity (ie, comparing relative difference of best and worst group rates), we also need to look at relative differences of groups compared with those in the highest social position at national and local levels.

The capacity of Healthy People 2030 to measure success in achieving health equity as a nation will depend on ongoing surveillance of health inequalities between more and less advantaged social groups. It will be important to assess both the magnitude of these inequalities and how they change over time in relation to policies and conditions that influence health and well-being.

Discussion

Health disparities seem intractable in the face of widespread public health threats. Yet, a society with fair and just societal conditions, free of inequities and health care disparities, offers people opportunities to attain the highest level of health and well-being throughout their life spans. Such a society is better equipped to withstand public health threats and its members flourish.⁴²

Achieving health equity will require diverse sectors—at all levels of society—to engage in policies and practices that actively dismantle the root causes of health disparities. To determine needed actions, individuals and communities should apply an equity lens to assess how their social, built, and natural environments influence health.⁴³

Everyone benefits when a society maintains readiness to address urgent needs (eg, acute care, disaster relief) and has made investments to ensure vital conditions (eg, living wage jobs, stable housing). The COVID-19 pandemic has heightened the imperative for all of us, including businesses and communities, to make structural changes and take bold action to achieve health equity. The pandemic is magnifying preexisting inequalities that prevent equal access to opportunity, lead to disproportionate loss of life among disadvantaged groups, and ultimately affect the health of all people in our nation. Despite decades of work, the United States has not yet made the progress needed to eliminate disparities, nor has it achieved health equity. Healthy People 2030 identifies where thoughtful investments in resources, time, and human capital must occur to achieve better outcomes in this decade. When health equity is attained, all people will have fair and equal access to opportunities that enable them to reach their full potential for health and well-being.

TABLE 4
Disparities Rate Ratios^a

Healthy People Objective (HP2030 Objective Number)	Disparities Rate Ratios (95% Confidence Interval)		
	Race/Ethnicity	Educational Attainment	Family Income
Increase the proportion of people with medical insurance (AHS-01) ^b	1.298 (1,000-1.379); Asian only (best group rate); American Indian or Alaska Native only (worst group rate)	1.436 (1,000-1.477); advanced degree (best group rate); <High school (worst group rate)	1.208 (1,000-1.228); 600+% FPL (best group rate); <100% FPL (worst group rate)
Reduce the proportion of persons who are unable to obtain or delayed in obtaining necessary medical care (AHS-04) ^c	1.634 (1,000-1.986); Hispanic or Latino (best group rate); White only, not Hispanic or Latino (worst group rate)	1.398 (1,000-1.679); 4-y college degree (best group rate); Some college (worst group rate)	1.770 (1,000-2.206); 400%-599% FPL (best group rate); <100% FPL (worst group rate)
Increase the proportion of persons with a usual primary care provider (AHS-07) ^d	1.184 (1,000-1.325); White only, not Hispanic or Latino (best group rate); Hispanic or Latino (worst group rate)	1.134 (1,000-1.178); advanced degree (best group rate); <High school (worst group rate)	1.096 (1,000-2.128); 600+% FPL (best group rate); <100% FPL (worst group rate)
Reduce the proportion of hospital emergency department visits in which the wait time to see an emergency department clinician exceeds the recommended timeframe (AHS-09) ^d	1.097 (1,000-1.491); Hispanic or Latino (best group rate); Black or African American only (worst group rate)	N/A	N/A
Increase the proportion of adults with broadband access to the Internet (HC/HIT-05) ^c	1.256 (1,000-1.620); Asian only (best group rate); Black or African American only (worst group rate)	1.309 (1,000-1.529); advanced degree (best group rate); High school (worst group rate)	1.723 (1,000-2.156); \$50 000-\$75 000 (best group rate); <\$20,000 (worst group rate)
Reduce household food insecurity and in doing so reduce hunger (NWS-01) ^b	4.714 (1,000-6.085); Asian only (best group rate); American Indian or Alaska Native (worst group rate)	8.756 (1,000-10.350); advanced degree (best group); High school (worst group rate)	37.208 (1,000-48.477); 600%+ FPL (best group rate); <100% FPL (worst group rate)
Eliminate very low food security among children (NWS-02) ^b	4.935 (1,000-10.128); White only, not Hispanic or Latino (best group rate); Black or African American only, not Hispanic or Latino (worst group rate)	1.359 (1,000-2.725); some college (best group rate); high school (worst group rate)	3.516 (1,000-6.758); 200%-399% FPL (best group rate); <100% FPL (worst group rate)

Abbreviations: HP, Healthy People; FPL, Federal Poverty Level; N/A, not available.

^aSelect HP 2030 social determinants of health objectives relevant to COVID-19 by race/ethnicity, education, family income. The table provides traditional rate ratios, measuring relative difference (a comparison of one value to another) of the worst and best group rates. One should compare a given population group with the group in the most advantaged social position. See Supplemental Digital Content (available at <http://links.lww.com/JPHMP/A746>) for more explanation. Disparities rate ratios use population data from comparable objectives in Healthy People 2020. Data retrieved from <https://www.healthypeople.gov>.

^bBased on 2018 data.

^cBased on 2017 data.

^dBased on 2016 data.

Implications for Policy & Practice

- Achieving health equity is a visionary goal that would require the absence of all inequities in health, health care, and the living and working conditions that influence health and well-being.
- Diverse and nontraditional partners (eg, employers, city planners), must disrupt structural and systemic inequities that lead to health inequities over time. This ambitious goal requires collective action that is coordinated across the health, labor, economic, housing, and legal sectors at all levels of policy.
- The task of reaching health equity is an ultramarathon. It will require enduring commitment and vigilance, and the work will not be easy.
- Progress toward health equity should be understood and valued by the public and policy makers at all levels, and its progress should be routinely monitored and reinforced.
- Societal conditions are fluid and will bring new challenges to existing, supportive policies and programs, and constant adjustments to health equity work will be needed.
- The reward for our collective efforts will be a society in which all people are able to benefit and contribute.

Health equity is achievable in the United States by implementing evidence-based policy interventions that affect the social determinants of health. The Healthy People 2030 framework describes a process to enable all people to achieve their health potential across the life span. It links a constellation of connected priorities to practical guidance on applying multisectoral policies to achieve health equity and enhance social determinants of health. Such linkages recognize that health and well-being can be experienced more equitably and improved for all. This evolution can only occur when we embrace our interdependencies with one another and within the broader contexts—physical, social, economic, and cultural—in which we live. The COVID-19 outbreak has underscored that addressing these factors is a matter of life and death.

References

1. HealthyPeople.gov. Healthy People 2030 framework. <https://www.healthypeople.gov/2020/About-Healthy-People/Development-Healthy-People-2030/Framework>. Accessed October 6, 2020.
2. HealthyPeople.gov. How to use HealthyPeople.gov. <https://www.healthypeople.gov/2020/About-Healthy-People/How-To-Use-HealthyPeople.gov>. Accessed October 6, 2020.
3. HealthyPeople.gov. History & development of Healthy People. <https://www.healthypeople.gov/2020/About-Healthy-People/History-Development-Healthy-People-2020>. Accessed November 25, 2020.
4. Gomez C, Kleinman D, Pronk N, et al.; Secretary's Advisory Committee on National Health Promotion and Disease Prevention Objectives for 2030. Health equity, in issue briefs to inform development and implementation of Healthy People 2030. https://www.healthypeople.gov/sites/default/files/HP2030_Committee-Combined-Issue%20Briefs_2019-508c.pdf. Accessed November 25, 2020.
5. Secretary's Advisory Committee on National Health Promotion and Disease Prevention Objectives for 2030. Recommendations for an approach to Healthy People 2020. https://www.healthypeople.gov/sites/default/files/Full%20Committee%20Report%20to%20Secretary%205-9-2017_1.pdf. Accessed November 25, 2020.
6. HealthyPeople.gov. Social determinants of health. <https://www.healthypeople.gov/2020/topics-objectives/topic/social-determinants-of-health>. Accessed November 25, 2020.
7. World Health Organization. About social determinants of health. http://www.who.int/social_determinants/sdh_definition/en. Accessed November 25, 2020.
8. Braveman P, Gottlieb L. The social determinants of health: it's time to consider the causes of the causes. *Public Health Rep.* 2014; 129(1):19-31.
9. Braveman PA, Shirk K, Fielding J, et al. Health disparities and health equity: the issue is justice. *Am J Public Health.* 2011; 101(suppl 1):S149-S155.
10. HealthyPeople.gov. Foundation Health Measures Archive. <https://www.healthypeople.gov/2020/About-Healthy-People/Foundation-Health-Measures2020/About-Healthy-People/Foundation-Health-Measures/Archive>. Accessed May 1, 2020.
11. Health Equity in Public Policy: Messaging Guide for Policy Advocates. <https://voicesforhealthykids.org/resources/health-equity-messaging-guide-2018>. Published 2017. Accessed November 25, 2020.
12. World Health Organization. Health impact assessment. https://www.who.int/health-topics/health-impact-assessment#tab=tab_1. Accessed October 6, 2020.
13. World Health Organization. What are social determinants of health? http://www.who.int/social_determinants/sdh_definition/en. Published 2017. Accessed November 25, 2020.
14. ReThink Health. Negotiating a well-being portfolio. Rippel Foundation. <https://www.rethinkhealth.org/wp-content/uploads/2017/07/Well-being-Map.pdf>. Published 2017. Accessed November 25, 2020.
15. Pronk NP, Baase C, Noyce J, Stevens DE. Corporate America and community health: exploring the business case for investment. *J Occup Environ Med.* 2015;57(5):493-500.
16. Organisation for Economic Co-operation and Development. *Perspectives on Global Development 2012: Social Cohesion in a Shifting World*. Paris, France: OECD Publishing; 2011.
17. Samuelli Institute. A plan to strengthen and sustain our nation's wellbeing, community by community. <http://www.samueliinstitute.org/research-areas/health-policy-communities/wellbeing-in-the-nation.html>. Published 2017. Accessed December 2, 2020.
18. Solar O, Irwin A. *A Conceptual Framework for Action on Social Determinants of Health. Social Determinants of Health Discussion Paper 2 (Policy and Practice)*. Geneva, Switzerland: World Health Organization Press; 2010.
19. Ehlinger E. Health equity and social cohesion. *MetroDoctors.* September/October 2017:12-13.
20. Chuang YC, Chuang KY, Yang TH. Social cohesion matters in health. *Int J Equity Health.* 2013;12:87.
21. Putnam RD. *Bowling Alone: The Collapse and Revival of American Community*. 1st ed. New York, NY: Touchstone Books by Simon & Schuster; 2001:544.
22. Fullilove MT. Promoting social cohesion to improve health. *J Am Med Women's Assoc (1972)*. 1998;53(2):72-76.
23. Centers for Disease Control and Prevention. Policy resources to support SDOH. <https://www.cdc.gov/socialdeterminants/policy/index.htm>. Published 2019. Accessed May 1, 2020.
24. Pronk N, Kottke T, Milstein B, Rossom R, Stiefel M; Secretary's Advisory Committee on National Health Promotion and Disease Prevention Objectives for 2030. Health and well-being, in Issue briefs to inform development and implementation of Healthy People

2030. https://www.healthypeople.gov/sites/default/files/HP2030_Committee-Combined-Issue%20Briefs_2019-508c.pdf. Accessed November 25, 2020.
25. Centers for Disease Control and Prevention. Health equity considerations and racial and ethnic minority groups. Coronavirus Disease 2019 (COVID-19). <https://www.cdc.gov/coronavirus/2019-ncov/need-extra-precautions/racial-ethnic-minorities.html>. Updated July 24, 2020. Accessed May 1, 2020.
 26. Garg S. Hospitalization rates and characteristics of patients hospitalized with laboratory-confirmed coronavirus disease 2019—COVID-NET, 14 states, March 1-30, 2020. *MMWR Morb Mortal Wkly Rep*. <https://www.cdc.gov/mmwr/volumes/69/wr/mm6915e3.htm>. Published April 17, 2020. Accessed April 30, 2020.
 27. US Census Bureau. ACS demographic and housing estimates. <https://data.census.gov/cedsci/table?q=San%20Francisco%20County%20%20DP05&g=0500000US06085&tid=ACSDP5Y2018.DP05>. Accessed May 13, 2020.
 28. DataSF. Demographics of COVID-19 cases and deaths. <https://data.sfgov.org/stories/s/Demographics-of-COVID-19-Cases-and-Deaths/w6za-6st8>. Accessed May 13, 2020.
 29. New Mexico Department of Health. COVID-19 in New Mexico. <https://cv.nmhealth.org/dashboard>. Accessed May 13, 2020.
 30. Childress M. Native Americans make up 50% of COVID-19 deaths in New Mexico. New Mexico In Depth Web site. <http://nminddepth.com/2020/05/11/native-americans-make-up-50-of-covid-19-deaths-in-new-mexico>. Published May 11, 2020. Accessed May 13, 2020.
 31. Office of Minority Health. Profile: Black/African Americans. <https://www.minorityhealth.hhs.gov/omh/browse.aspx?vl=3&lvlid=61>. Updated August 22, 2019. Accessed April 30, 2020.
 32. Centers for Disease Control and Prevention, National Center for Health Statistics. Healthy People 2010 final review. https://www.cdc.gov/nchs/data/hpdata2010/hp2010_final_review_overview.pdf. Published 2018. Accessed November 25, 2020.
 33. Villarosa L, Harris LK. "A terrible price": the deadly racial disparities of COVID-19 in America. *New York Times*. <https://www.nytimes.com/2020/04/29/magazine/racial-disparities-covid-19.html>. Updated May 20, 2020. Accessed April 29, 2020.
 34. Wyatt GE, Gómez CA, Hamilton AB, Valencia-Garcia D, Gant LM, Graham CE. The intersection of gender and ethnicity in HIV risk, interventions, and prevention: new frontiers for psychology. *Am Psychol*. 2013;68(4):247-260.
 35. Ray R. Why are Blacks dying at higher rates from COVID-19? Brookings Web site. <https://www.brookings.edu/blog/fixgov/2020/04/09/why-are-blacks-dying-at-higher-rates-from-covid-19>. Published April 9, 2020. Accessed May 1, 2020.
 36. Disparities in the impact of air pollution. <https://www.lung.org/clean-air/outdoors/who-is-at-risk/disparities>. Accessed April 30, 2020.
 37. Brown AF, Ma GX, Miranda J, et al. Structural interventions to reduce and eliminate health disparities. *Am J Public Health*. 2019;109(S1):S72-S78.
 38. Koo D, O'Carroll PW, Harris A, DeSalvo KB. An environmental scan of recent initiatives incorporating social determinants in public health. *Prev Chronic Dis*. 2016;13:E86.
 39. HealthyPeople.gov. Social determinants of health interventions and resources. <https://www.healthypeople.gov/2020/topics-objectives/topic/social-determinants-health/interventions-resources>. Accessed November 25, 2020.
 40. Braveman PA, Egerter SA, Cubbin C, Marchi KS. An approach to studying social disparities in health and health care. *Am J Public Health*. 2004;94(12):2139-2148.
 41. Hamilton CM, Strader LC, Pratt JG, et al. The PhenX toolkit: get the most from your measures. *Am J Epidemiol*. 2011;174(3):253-260.
 42. *Communities in Action: Pathways to Health Equity*. Washington, DC: National Academies Press; 2017.
 43. Galvez S. *Portrait of Promise: The California Statewide Plan to Promote Health and Mental Health Equity*. Sacramento, CA: California Department of Public Health; 2015.