

HEALTH DISPARITIES

Drafted by the Wisconsin Center for Health Equity

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Note to readers and users of the *Healthiest Wisconsin 2020 Profiles*: This *Healthiest Wisconsin 2020 (HW2020)* Profile is designed to provide background information leading to collective action and results. This profile, which is not a policy statement of the Department of Health Services (DHS), was prepared by the Wisconsin Center for Health Equity (Swain G and Hood C) based on the discussions of the Focus Area Strategic Team that was convened by the Wisconsin DHS during October 2009 through February 2010 and with review of the literature and input by the Wisconsin Minority Health Leadership Council.

The objectives from this Focus Area have been recognized as objectives of *HW2020*. (Refer to Section 3 of the *HW2020* plan.) Since the plan's original publication in July 2010, the two focus areas of "Health Disparities" and "Social, Economic, and Educational Factors that Influence Health," which were originally designated as "Overarching" and "Pillar" objectives, have been grouped into the category entitled "Crosscutting Focus Areas."

Both Crosscutting Focus Area Profiles are available at the website of the Wisconsin Center for Health Equity at <http://www.wche.org/healthiest-wisconsin-2020.html>. A complete list of *HW2020* Focus Area Strategic Team Members can be found in Appendix A of the *HW2020* plan.

Table of Contents

Definitions.....	2
Importance of the Focus Area.....	2-6
Wisconsin Data Highlights.....	7-10
Economic Benefits of Addressing Health Disparities.....	11
HW2020 Objectives Related to the Health Disparities Focus Area.....	12
Evidence- or Science-Based Programs and Policies to Advance the Objectives.....	13-16
Additional Key Tasks for Wisconsin's Public Health System.....	17
Acknowledgements.....	18
Appendix A: A Closer Look at Health Disparities in Wisconsin—3 Examples.....	19-22
References and Resources.....	23-24

Definitions

Health disparities means differences in the incidence, prevalence, mortality, burden of diseases and other adverse health conditions or outcomes that exist between population groups based on age, gender, race, ethnicity, sexual identity or orientation, gender identity, educational attainment, economic status, geography, disability or special health care needs, or other categories. Many health disparities are also considered to be health inequities - disparities that are avoidable, unfair, or unjust and are the result of social or economic conditions or policies that occur among groups who have persistently experienced historical trauma, social disadvantage or discrimination, and systematically experience worse health or greater health risks than more advantaged social groups.

Health equity means “Fairness in the distribution of resources and the freedom to achieve healthy outcomes between groups with differing levels of social disadvantage.” It also means “a fair opportunity to attain... full health potential and, more pragmatically, that no one should be disadvantaged from achieving this potential, if it can be avoided.”ⁱ

Importance of the Focus Area

Eliminating health disparities is essential to achieving health equity. According to the World Health Organization, the aim of a health equity approach “is not to eliminate all health differences so that everyone has the same level and quality of health, but rather to reduce or eliminate those which result from factors which are considered to be both avoidable and unfair.”ⁱⁱ

Health disparities is one of two crosscutting focus areas (the other is *Social, economic and educational factors that influence health*) in Healthiest Wisconsin 2020ⁱⁱⁱ, Wisconsin’s state health plan for the 2010-2020 decade. Crosscutting focus areas have the power to influence all the health and infrastructure focus areas. They are the heart of Healthiest Wisconsin 2020 and represent Wisconsin’s public health system transformation.

The drive to eliminate health disparities also builds upon an extensive research base and recommendations from notable national and global institutions and advisory bodies. Readers and users of the Health Disparities Profile are encouraged to look deeper into research and approaches to understanding the underlying causes and elimination of health disparities, including structural barriers touched upon in this Profile. A comprehensive list of resources is cited at the end of this report.

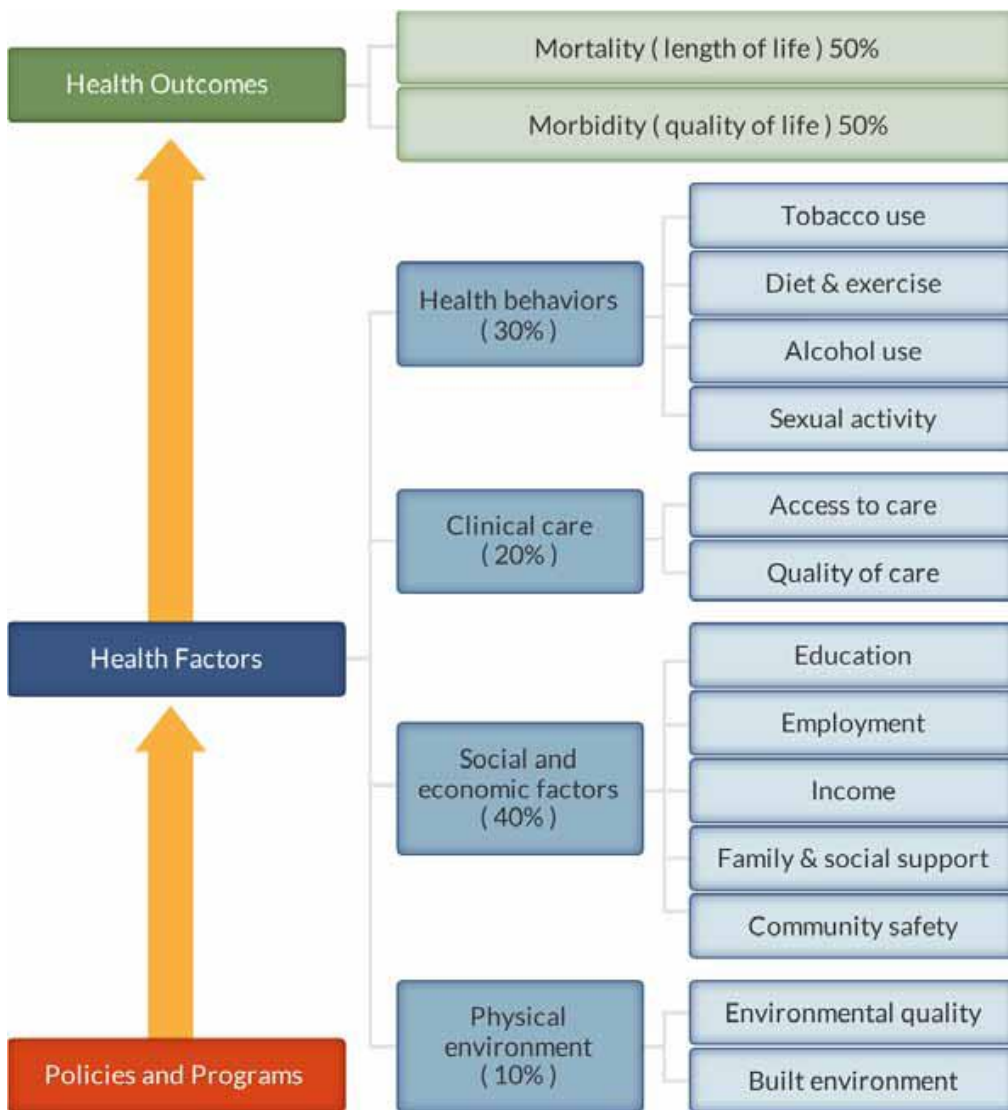
The Determinants of Health

Prevention saves resources and saves lives. Preventing problems is almost always more cost-effective than treatment. *Healthiest Wisconsin 2020*, like its predecessor plan, *Healthiest Wisconsin 2010*, uses the underlying determinants of health as a core public

health strategy to identify the upstream factors that influence the distribution of health in the population.

Health is partly an individual matter, reflecting a person’s unique genetic inheritance, use of/access to medical care, and behaviors. While important, these are only part of the picture. As illustrated in Figure 1, there are several major influences on the health of a neighborhood, community, state or nation, and which are, in turn, driven by broader-scale policy and practice decisions^{iv}.

Figure 1. Determinants of Population Health



County Health Rankings model ©2012 UWPHI

University of Wisconsin School of Medicine and Public Health, *Mobilizing Action Toward Community Health*, *County Health Rankings*, can be accessed at <http://www.countyhealthrankings.org/about-project/background>.

As seen in Figure 1, the underlying determinants of health are grouped into four main categories: (1) healthy behaviors, (2) clinical care, (3) social and economic, and (4) physical environment. The underlying determinants of health, or risk factors, exert a powerful and sustained influence on health and on the distribution of disease, illness, injury, disability, and premature death in the population.

The determinants of health provide a critical pathway for collective action to promote better health, well-being, and quality of life, to mitigate negative health outcomes, and to reduce or eliminate disparities in such outcomes. By focusing on the underlying determinants of health and root causes, we turn our attention to the real causes of current and emerging health problems and health disparities in the Wisconsin population.

Note: The model depicted in Figure 1 is the model of the determinants of health used throughout *Healthiest Wisconsin 2020*. Its emphasis is on modifiable risk factors. The previous state health plan, *Healthiest Wisconsin 2010*, employed the *Model of the Determinants of Health*^v, which emphasized both modifiable and non-modifiable risk factors.

1. The “health behaviors” determinant of health

Health behaviors, such as smoking, overeating, alcohol and drug use, the use of safety measures and physical activity patterns, greatly affect health. But these are only partly a function of personal, conscious choice. Behavior is also learned in families, and influenced heavily by marketing, cultural norms, ease of choice, costs, the expectations of peer networks, and hard-to-change habits or addictions.

Product marketers know that the choices people make can be influenced by carefully adjusting perception, price, placement, promotion, policies and other factors. Health behaviors are also influenced by policy, availability of social venues and access. What health-promoting behaviors we are able to make are often affected by factors external to our control, making it more difficult for some populations to maintain a healthy lifestyle.

If an objective of *Healthiest Wisconsin 2020* is to help people adopt more healthy behaviors, public health system partners will want to work together adjusting policy and the physical and social environments to make healthy behaviors the convenient, desirable, default decision. Making it possible to make the best choices for health is an important strategy.

2. The “clinical care” determinant of health

People need high-quality health care to prevent and treat disease, injury and disability, and medicine’s capacity to improve the length and quality of life is growing. Lower income can have a drastic effect on life expectancy—an inequity of more than six years can result between those at the lowest and highest income levels. Of the many pathways by which this gradient operates, one is that those with lower income often have worse access to health care. At the same time, people may rely too heavily on the ability of health care to keep them in or restore them to good health. Instead, reducing the negative impact of health determinants can result in improved health outcomes at a lower cost to the individual and society.

While individuals make some choices about the use of health services, their choices are made in a health care system that makes many other decisions on their behalf. Whether care is nearby, affordable, coordinated or fragmented, of high quality or low, culturally competent or not, is the product of many institutional decisions made, or influenced, by government, insurance companies, employers, universities and health care organizations. Thus, while where and from whom people receive health care is often an extremely personal choice, the organization of our health care system is not. Clinical care is far less likely to be a personal choice for those who are economically disadvantaged.

3. *The “social and economic” determinants of health*

Another group of health determinants is described as social and economic factors. These include how people meet their needs for education and employment opportunities, food, shelter, and physical security. Furthermore, the extent to which an individual has supportive families, friends, cultural norms and traditions affects well-being and health. Research shows a particularly strong association between health and access to employment, education, income, housing and social support. Often social and economic factors play a stronger role in influencing health than the strongest individual health behaviors.^{vi, vii}

4. *The “physical environment” determinant of health*

The last major determinant is the physical environment. This includes air and water quality; food safety; safe and affordable housing; school and workplace conditions; health care settings; community design for parks and recreation; intrusion of highways into neighborhoods; location of industries; safety and civil engineering, and other factors. Until recently, much of the focus in this area has been on the elimination of hazards such as childhood poisoning caused by lead in paint, or conditions that encourage the spread of communicable diseases, such as when accumulated water in old tires provides a breeding ground for mosquitoes that carry pathogens like West Nile virus.

More recently, policy interventions have focused on community design which can influence the quality of the environments that affect health. This can happen in two ways. First, increasing the health-promoting attributes of neighborhoods. As examples, a neighborhood design that makes it more inviting for people to use a park or playground, or easier for people to walk to a library or grocery store, can decrease reliance on automobiles and increase the occurrence of safe exercise and vibrant social networks. Second, decreasing the potentially health-adverse attributes of neighborhoods. As examples, neighborhoods with lower density of fast food restaurants, with fewer alcohol and cigarette outlets, and/or with less targeted marketing of these items, have decreased consumption of unhealthy foods and health-harming substances, thereby improving health outcomes. Through both of these types of policy initiatives, improvements in the design of the “built environment” are increasingly being associated with a variety of positive health outcomes.^{viii}

Readers may wish to refer to the *Healthiest Wisconsin 2020* Profile entitled “Social, Economic, and Educational Factors that Influence Health.”^{ix}

5. The “systems-level” determinant of health

Not depicted in Figure 1, but powerfully influencing the allocation and distribution of resources listed in the other four health determinant factors (healthy behaviors, clinical care, social and economic, and physical environment), are systems-level dynamics. Social exclusion—often manifested through stigma, discrimination, gay oppression, racism, social class—is a highly relevant public health issue seen in rates of incarceration, immigration policies, language and culture. According to the World Health Organization’s Social Exclusion Knowledge Network, “exclusion consists of dynamic, multi-dimensional processes driven by unequal power relationships interacting across four main dimensions - economic, political, social and cultural - and at different levels including individual, household, group, community, country and global levels. It results in a continuum of inclusion/exclusion characterized by unequal access to resources, capabilities and rights which leads to health inequalities.^{xv}”

As identified in the Institute of Medicine’s report, *Unequal Treatment: Confronting Racial and Ethnic Disparities in Health Care* (2003), “racial and ethnic minorities tend to receive a lower quality of health care than non-minorities, even when access-related factors are controlled. The sources of these disparities are complex, rooted in historic and contemporary inequities, and involve many participants at several levels, including health care systems, their administrative and bureaucratic processes, utilization managers, health care professionals, and patients.^{xi}” And this inequity transcends health care quality and access and extends to all the other modifiable determinants of health; similar racial and ethnic disadvantages are seen in employment and educational opportunities, housing and neighborhood composition, and access to healthy foods and spaces to exercise. Findings from the report include:

- “Blacks/African Americans, Hispanics/Latinos, American Indians, Pacific Islanders, and some Asian subpopulation groups are disproportionately represented in lower socioeconomic ranks, in lower quality schools, and in poorer-paying jobs.”
- Disparities have many causes and factors that include a history of legalized segregation and discrimination. Unfortunately, social and economic life in America is influenced by both the subtle and overt prevailing views of race and ethnicity. Ethnic minorities often suffer disadvantage compared to their White counterparts.

Many sources, including health care systems, providers, patients, and others, may contribute to health care related health disparities. Factors such as a poor cultural match between patient and provider, mistrust, misunderstanding, and prior experiences in the health care system may contribute to these behaviors. Some studies suggest that minority patients are more likely to refuse treatment, may not follow treatment recommendations, and postpone seeking care until the health condition has worsened. Further study has been recommended on patient-level factors including greater understanding of the roles that bias, stereotyping, prejudice, and clinical uncertainty play in health care delivery and patient outcomes.

Wisconsin Data Highlights

In 2013, the University of Wisconsin-Madison Population Health Institute published the *Health of Wisconsin Report Card*. In this report card, the Institute graded the overall health of the people of Wisconsin a “B minus” and graded health disparities a “D.”^{xii} Wisconsin’s greatest health disparities were identified for Blacks/African American populations and large urban areas (Milwaukee County); health grades for these groups were “F.”

Health Disparities can be measured across many different groups, including by race/ethnicity, sexual orientation, disability status, urban/rural place of residence, educational attainment, and level of income. The most up-to-date data on Wisconsin’s health disparities at the time of this report can be found in the Wisconsin Department of Health Services’ *Healthiest Wisconsin 2020 Baseline and Health Disparities Report*, which is available at

<http://www.dhs.wisconsin.gov/hw2020/hw2020baselinereport.htm>.^{xvii}

Additional state and national data reveal the following regarding health disparities in Wisconsin:

Racial and ethnic disparities

- The African American infant mortality rate for 2010 was 13.9 deaths per 1,000 births, compared to 4.9 deaths per 1,000 births to white women. The Hispanic/Latino infant mortality rate for 2010 was 4.4 deaths per 1,000 births (Wisconsin Department of Health Services, Office of Health Informatics, 2012).
- In 2006, Wisconsin had the fourth highest rate of African American infant mortality in the U.S. (Annie E. Casey Foundation, 2009c). Between 2003 and 2005, Wisconsin had the nation’s third highest disparity between African American and White infant death rates (Centers for Disease Control and Prevention, 2008).
- Frequent mental distress was more prevalent among Wisconsin Hispanics (17 percent), American Indians (14 percent) and African Americans (15 percent) compared to Whites (8 percent) (BRFS, 2006-2008 data).
- Suicide rates in Wisconsin were highest among American Indians (16.6 per 100,000 population) compared to other race/ethnicity groups – Black/African American (7.1), Asian/Pacific Islander (6.1), Hispanic/Latinos(5.6), and White (12.1) (Wisconsin resident death certificates, unpublished data for 2001-2006).
- In 2001-2004, American Indians had the highest mortality rate for coronary (ischemic) heart disease in Wisconsin at an age-adjusted rate of 157 per 100,000 population, compared to Whites at 139; Blacks/African Americans at 133, Asians at 60, and Hispanics/Latinos at 52. The hospitalization rate in 2004 for coronary (ischemic) heart disease was highest among Whites at 6.2 per 1,000, compared to Blacks/African Americans at 4.3 per 1,000, American Indians at 3.8 per 1,000,

Hispanics/Latinos at 2.0 per 1,000, and Asians at 1.4 per 1,000 (*Wisconsin Heart Disease and Stroke Surveillance Summary, 2007*).

- For the years 2002-2006, Blacks/African Americans had the highest incidence of cancer in Wisconsin at an age-adjusted rate of 536.1 per 100,000, compared to Whites at 465.5, American Indians at 391.2, Hispanics/Latinos at 348.2, and Asians at 262.5. Blacks/African Americans also had the highest rate of age-adjusted cancer mortality at 254.2 per 100,000, compared to American Indians at 219.0, Whites at 182.1, Asians at 100.7, and Hispanics/Latinos at 87.4 (*Wisconsin Cancer Incidence and Mortality, 2002-2006, 2009*).
- One in three Asian, Black, or Hispanic third-grade children had untreated tooth decay, compared to one in six White children. (Wisconsin Department of Health Services, HW2020 Baseline and Health Disparities Report 2014).
- In 2008, a higher proportion of Whites in Wisconsin were physically active (56 percent) than Blacks/African Americans (46 percent) (BRFSS, 2008).
- For infants enrolled in the Women, Infants and Children's Program Supplemental Nutrition Program (WIC), breastfeeding rates are highest for Hispanics/Latinos, lower for Whites and American Indians, and still lower for Asians and Blacks/African Americans (Pediatric Nutrition Data, Wisconsin Department of Health Services, 2008; Pediatric Nutrition Surveillance System, U.S. Centers for Disease Control and Prevention).
- Wisconsin had the second highest Black-to-White ratio of teen pregnancy rates in 2005. Although the state ranked sixth lowest in overall teen pregnancy rates, Wisconsin African American women had the second highest rate among all states (Guttmacher Institute, 2010).
- In 2001-2005, the age-adjusted mortality rate for diabetes was 3.3 times higher among American Indians, 2.3 times higher among African Americans, 1.4 times higher among Hispanics/Latinos, and 1.2 times higher among Asians compared to Whites (Wisconsin Department of Health Services, 2008).

Lesbian, gay, bisexual, and transgender disparities

- In Wisconsin, more than one in four (27.3 percent) of lesbian, gay, and bisexual adults ages 18-64 reported that they lack health care coverage, compared to 10.9 percent of heterosexual adults (2008 Behavioral Risk Factor Survey, Wisconsin Division of Public Health, AIDS/HIV Program, 2010).
- In 2007-2009, 41 percent of Wisconsin high school students with same-sex sexual contact had considered suicide in the past 12 months, compared with 16 percent of students with only opposite-sex sexual contact (2007 and 2009 Youth Risk Behavior Survey, Wisconsin Division of Public Health, AIDS/HIV Program, unpublished analysis, March 2010).

- The number of HIV diagnoses in 2009 among men who have sex with men (MSM) in Wisconsin was estimated to be 47 times the number of HIV diagnoses among other men and 78 times the number of HIV diagnoses among women. More than one in three (36 percent) of Black/African American MSM in Wisconsin were estimated to be infected with HIV. This compares to 12 percent of Hispanic/Latino MSM and 5 percent of White MSM (Wisconsin Division of Public Health, AIDS/HIV Program, 2010).
- In 2009, one in ten Wisconsin high school students who reported having had sexual contact reported having had same-sex sexual contact. Among students reporting having had any sexual contact, those with same-sex contact experienced higher rates of risk behaviors and conditions than did their peers with only opposite-sex contact. These risk behaviors and conditions were identified from questions related to physical safety, emotional safety and support, mental health, and tobacco and drug use.
- For example, one in seven (15.3 percent) of students with same-sex contact, compared to 3.2 percent of students with only opposite-sex contact, skipped school at least once in the past month because they felt unsafe at school. Ten percent of youth with same-sex contact had a suicide attempt in the previous 12 months serious enough to require medical attention, compared to 1.6 percent of youth with only opposite-sex contact; this was a six-fold difference in the rate of serious suicide attempts. Twice as many youth with same-sex contact (26.8 percent) compared to youth with only opposite-sex contact (13.1 percent) had smoked on more than 10 of the past 30 days, and rates of heavy smoking were more than three times higher for youth with same-sex contact (2009 Wisconsin Youth Risk Behavior Survey, Karki, Gasiorowicz, and Hollander, 2010).

Disparities for people with disabilities

- Children and youth with special health care needs are nearly twice as likely to have had two or more oral health problems in the past six months, compared with children without special health care needs: 11.3 percent compared to 6.4 percent, respectively (National Survey of Children's Health, 2007).
- Children with special health care needs are more than four times more likely to have had problems getting specialist care during the previous 12 months compared with children without special health care needs: 13.9 percent compared to 3.4 percent, respectively (National Survey of Children's Health, 2007).
- In 2006, adults with disabilities were more than twice as likely to report no leisure-time physical activity in the past 30 days compared with non-disabled adults, at 32 percent vs. 15 percent, respectively (Behavioral Risk Factor Surveillance System).
- Adults with an activity limitation spent an average of 13.1 days with depression, anxiety or emotional problems during the previous 30 days; adults with no activity

limitation averaged 2.4 such days during the same period (1995-1997 data from the Behavioral Risk Factor Surveillance System).

Urban/rural disparities

- Children and young adults living in rural communities received a letter grade of “D” in overall health, compared to a “C” for those living in a large urban area (Milwaukee County) and a “B” for those in suburban or small cities (Booske BC, Roubal AM, Graupner AG, Bergum AH, Kindig DA, Remington P 2010).
- Adults living in a large urban area (Milwaukee County) received a “D” in death rates, compared to a “B” for those living in rural areas and an “A” for those in suburban or small cities. Similarly, adults living in a large urban area (Milwaukee County) received a “D” in overall unhealthy days, compared to a “B” for those living in rural areas and a “B” for those in suburban or small cities (Booske BC, Roubal AM, Graupner AG, Bergum AH, Kindig DA, Remington P 2010).

Educational disparities

- For working-age adults, those with a high school diploma or less received a “D” in death rate relative to those with some college education (“A”) or a bachelor’s degree (“A”). Similarly, for working-age adults, those with a high school diploma or less received a “D” in unhealthy days relative to those with some college education (“C”) or a bachelor’s degree (“A”) (Booske BC, Roubal AM, Graupner AG, Bergum AH, Kindig DA, Remington P, 2010).
- For older adults (age 65+), those with a high school diploma or less received an “F” in death rates relative to those with some college education (“A”) or a bachelor’s degree (“A”). Similarly, for older adults, those with a high school diploma or less received a “D” in unhealthy days relative to those with some college education (“C”) or a bachelor’s degree (“A”) (Booske BC, Roubal AM, Graupner AG, Bergum AH, Kindig DA, Remington P, 2010).

Income disparities

- Wisconsin adults in the highest income brackets are nearly twice as likely (22.5%) to report being in “excellent health” compared to adults in the lowest income bracket (12%) (BRFSS, Wisconsin 2012).

Economic Benefits of Addressing Health Disparities

In a report issued in 2003 by the Institute of Medicine, *Hidden Costs, Value Lost: Uninsurance in America*, it was estimated that 18,000 people in America die prematurely each year because they lack health insurance.^{xiii} The Black/White mortality ratio has not improved in 60 years, and the annual cost to the nation of poorer health and shortened life span due to lack of insurance was between \$65 billion and \$130 billion. Because people of color are disproportionately represented among the uninsured, these numbers represent a greater burden within minority communities. Moreover, minority communities are disproportionately affected by conditions that reduce quality of life. Such conditions include unhealthy living environments with fewer health care facilities, fewer health care professionals, and less emphasis on wellness, health promotion, and prevention.^{xiii}

An issue brief from the American Public Health Association, *Evaluating the Economic Causes and Consequences of Racial and Ethnic Health Disparities*,^{xiv} described the economic impact of health disparities on individuals, communities, and society at large. As cited directly from this report^{xiv}:

- Eliminating health disparities is good health policy and good economic policy.
- Health disparities among Americans have been documented since the turn of the 20th century. Some disparities are widening.
- Racial and ethnic disparities influence workforce participation and thus household income. By 2015, it is projected that racial and ethnic minorities will make up 41.5 percent of the U.S. workforce.
- Increased incidence of heart disease, diabetes, cancer, and obesity among Blacks and Hispanics is associated with an increased number of missed workdays due to illness, as well as lower overall household earnings. Much of this is due to increased rates of illness and longer recovery times, resulting in increased sick days away from the job and lost income if the worker has no sick pay benefit. These health conditions have a tendency to occur at younger ages in minority groups, shortening the overall number of years of productive employment. Although some employers offer health insurance, hourly workers do not always have this benefit.
- Employees without sick leave either miss work due to poor health or cannot meet performance standards while at work because of poor health. An employee who becomes ill may be unable to work for a period of time. Without paid sick leave, these missed hours of work equate to lost income when the person stays out of the workplace to recover [from an illness]. In instances of extended periods of illness, workers may lose their jobs, often their only source of income. This vicious cycle of lost income and missed work contributes to poor health as individuals are unable to afford the health care they need to recover and return to work.
- Society and minority communities suffer as a result of greater health care costs to care for illnesses and diseases that could have been prevented earlier.

The report concludes, “Beginning to understand the far-reaching economic consequences of racial and ethnic health disparities can be a first step toward a national commitment to eliminating health disparities.”^{xiv}

HW2020 Objectives Related to the Health Disparities Focus Area

The HW2020 objectives related to health disparities were originally listed as Objectives 1 and 2 in the Healthiest Wisconsin 2020 state health plan.ⁱⁱⁱ This profile rennumbers the objectives and list of potential indicators (see below).

Objective 1

By 2020, in partnership with members of affected populations, the Department of Health Services will develop and enforce policies and procedures to track social determinants of health, health outcomes and system effectiveness in populations experiencing health disparities.

Objective 1 Indicator

Periodic inventory of data sets on health outcomes, social determinants of health and system effectiveness that include comparable information on race, ethnicity, sexual identity and orientation, gender identity, education, economic status, and disability. (Indicator to be developed.)

Objective 1 Rationale

There is a lack of data that identifies the affected disparate populations to provide a true picture of the magnitude and scope of the problem. The data needs to be collected in a uniform, standard way across a number of data systems so that comparisons may be made, which will assist in addressing the cultural and linguistic needs of the populations.

Objective 2

By 2020, the Department of Health Services, in collaboration with policy makers, private institutions, and affected communities, will fund efforts to eliminate health disparities at least equal to the Midwest state average.

Objective 2 Measure

Annual Wisconsin per-capita funding targeted toward health disparities relative to other Midwest states.

Objective 2 Rationale

In order for Wisconsin to address its health disparities for these selected populations it is critical that funding be pursued in joint partnership with affected communities, the Department of Health Services, and community partners.

Evidence- or Science-Based Programs and Policies to Advance the Objectives

Effective actions taken to eliminate health disparities and achieve health equity need to (1) recognize and systematically address the underlying environmental, social, economic, and behavioral causes of poor health; (2) address the need for active participation and large-scale engagement of government, the public health system and communities to take control of, and effect change in, their living and working conditions; and (3) correct “the underlying injustices based on race, class, gender, religion, immigration and sexual orientation that generate inequity in the distribution of disease.^{xv}” By improving the health of the most vulnerable we improve health for all. To improve the health of the most vulnerable requires collection of reliable data, funding, and the commitment and engagement of government, public and private sectors and communities. To drive change based on evidence and data requires funding by federal, state and local governmental agencies including community-based agencies and organizations.

To identify the most effective investments and monitor Wisconsin’s progress towards becoming the nation’s healthiest state, the University of Wisconsin Population Health Institute has compiled a database called “What Works for Health.” This database includes policies and programs that can improve health. It provides information on evidence of effectiveness, population reach, impact on health disparities, implementation, and other key information for each included policy and program.

The table below lists policies and programs for which scientific research has found evidence of effectiveness at reducing health disparities.^{xvi}

Evidence-Based Policies and Programs for Reducing Health Disparities:^{xvi}

Health Determinant	Health Factor	Goal	Policy or Program
Behavior	Tobacco Use	<ul style="list-style-type: none"> • Reduce initiation • Increase cessation 	Increase funding for a comprehensive statewide tobacco program Increase tobacco excise tax Proactive tobacco quit lines Reduce cost for tobacco cessation therapy
	Diet and Exercise	<ul style="list-style-type: none"> • Promote active living • Promote broad approaches to increasing physical activity • Promote healthy eating • Provide physical activity information and education 	Promote activity programs for older adults
			Increase nutrition and physical activity interventions in preschool and child care
			Increase breastfeeding promotion programs
			School-based obesity prevention interventions
	Alcohol Use	<ul style="list-style-type: none"> • Reduce binge drinking 	Increase alcohol excise tax
	Sexual Activity	<ul style="list-style-type: none"> • Reduce Sexually Transmitted Infections (STIs) and unintended pregnancy 	Implement behavioral interventions to reduce HIV risk
			Implement comprehensive risk reduction programs
			Increase condom availability programs
			Encourage human papillomavirus (HPV) vaccination
			Offer partner counseling and referral services (PCRS)
	Clinical Care	Access to Care	<ul style="list-style-type: none"> • Adopt alternate care models • Reduce financial and non-financial barriers to effective care • Increase opportunities for oral health care • Recruit providers to underserved areas • Recruit and retain high quality workforce • Reduce spending and use of unnecessary services
Promote medical homes			
Offer telemedicine			
Use systems and patient navigators			
Support federally qualified health centers (FQHCs)			
Mental health benefits legislation			
Community water fluoridation			
School dental programs			
Expand rural training tracks and programs in medical education			
Increase wages and benefits for long-term care (LTC) workers			

Health Determinant	Health Factor	Goal	Policy or Program
	Quality of Care	<ul style="list-style-type: none"> • Increase coordination of care • Provide culturally and linguistically competent care 	Financial incentives for patients undergoing preventive care
			Use the patient centered medical home model
			Implement laws requiring facilities to offer interpreters for LEP (Limited English Proficiency) individuals
Social and Economic	Education	<ul style="list-style-type: none"> • Increase early childhood education • Create environments that support learning • Establish home visiting or parent education programs • Improve quality of K-12 education • Increase education beyond high school • Increase high school graduation rates 	Support comprehensive early childhood development programs
			Support early Head Start (EHS)
			Promote universal pre-kindergarten (pre-K)
			Offer school breakfast programs
			Support school-based programs to reduce/prevent violent and aggressive behavior
			Support Families and Schools Together (FAST) programs
			Support HIPPY (Home Instruction Program for Preschool Youngsters)
			Support Reach Out and Read programs
			Promote full-day kindergarten
			Support Knowledge is Power Program (KIPP) models
			Promote summer learning programs
			Support programs targeted to increase college enrollment
			Promote career academies
			Support drop-out prevention programs
			Support drop-out prevention programs for teenage mothers
			Promote mentoring programs: high school graduation
			Implement Chicago Child-Parent Centers (CPC) models
Create service-learning programs			
Promote child support pass-through and disregard			

Health Determinant	Health Factor	Goal	Policy or Program
	Income	<ul style="list-style-type: none"> • Increase or supplement income • Ensure access to housing • Increase social connectedness among adults/special populations • Build social capital within families • Prevent neighborhood crime and violence • Prevent child maltreatment 	<ul style="list-style-type: none"> Increase funding for child care subsidy Increase the Earned Income Tax Credit (EITC) Housing Choice Voucher Program (Section 8) Support the Housing First program Promote Moving to Opportunity (MTO) Create activity programs for older adults Support early childhood home visiting programs Support Nurse-Family Partnership (NFP) Invest in comprehensive early childhood development programs Support mentoring programs: delinquency
Physical Environment	Environmental Quality	<ul style="list-style-type: none"> • Implement agricultural programs to reduce environmental contamination 	<ul style="list-style-type: none"> Support Groundwater Stewardship Program
	Built Environment	<ul style="list-style-type: none"> • Create opportunities for active living • Improve housing quality • Improve traffic safety 	<ul style="list-style-type: none"> Improve streetscape design
			<ul style="list-style-type: none"> Increase access to places for physical activity
			<ul style="list-style-type: none"> Increase green space/parks
			<ul style="list-style-type: none"> Promote mixed-use development
			<ul style="list-style-type: none"> Consider zoning regulations: land use policy
			<ul style="list-style-type: none"> Support housing rehabilitation loan & grant programs
			<ul style="list-style-type: none"> Support housing rehabilitation loan and grant programs
	<ul style="list-style-type: none"> Support child safety seat incentive & education programs 		
	Travel and Home life	<ul style="list-style-type: none"> • Support safe travel • Create safe home environments 	<ul style="list-style-type: none"> Promote safety seat distribution and education campaigns
			<ul style="list-style-type: none"> Use poison control (call) centers
			<ul style="list-style-type: none"> Require smoke detector installation in new and existing housing
			<ul style="list-style-type: none"> Support smoke detector giveaways

Additional Key Tasks for Wisconsin's Public Health System

Data collection, tracking, and measurement

Data collection, analysis, and surveillance are basic tools of public health. Data provides keys to understanding the underlying causes of disparities and measures the extent, intensity, and life-altering effects of health disparities on individuals, families and communities. Data collection must be inclusive and reliable and must reflect the demographic profile of Wisconsin. This includes collecting timely and reliable data for race, ethnicity, sexual identity, sexual orientation, gender identity, disability, education, and economic status.

Obtaining reliable data that can be used in planning may require investment in over-sampling smaller population groups (e.g., racial and ethnic groups). Data and analysis can uncover emerging health disparities, document effective interventions, and suggest opportunities for prevention. Such data can help monitor improvement or reduction in health disparities over time.

Funding and the sustained engagement of partners

In addition to reliable data, eliminating health disparities requires a multi-pronged approach requiring funding and long-term engagement by government, public, and private sectors and communities. Funding from federal, state, and local agencies and community-based agencies and organizations provides long-term essential resources to prevent and eliminate health disparities.

All levels of government and communities are both stakeholders and partners. To be effective, government, its partners, and communities must be willing not only to act but to demonstrate commitment to remain engaged over the long term. Data, funding, and sustained engagement by the partners build needed synergy, leadership and shared accountability. Such approaches conserve resources and save lives.

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Appendix A: A Closer Look at Health Disparities in Wisconsin—Three Examples

This appendix provides three examples of health disparities and how they affect communities in our state.

Example 1: Racial and Ethnic Disparities - Infant Mortality

Infant mortality has long been recognized as one of the most sensitive and predictive indicators of the health, social, and economic conditions of a community, state, and nation. Infant mortality can be thought of as the result of a group of stress factors (biological, psychosocial and environmental), pregnancy-related conditions, chronic conditions, intergenerational effects, and protective factors. When the protective factors associated with the pregnancy are not strong enough to counterbalance the other elements, the pregnancy is more likely to result in an infant death.

According to the state's *Healthiest Wisconsin 2020 Baseline and Health Disparities Report*, Wisconsin's overall infant mortality rate declined from 6.6 deaths per 1,000 births in 2000 to 5.7 in 2010. Wisconsin's 2010 infant mortality rate (IMR) for Whites (4.9 per 1000) was slightly lower than the U.S. White IMR (5.2 per 1,000); however, the state's 2010 Black IMR (13.9 per 1000) was higher than the U.S. Black IMR (11.6 per 1,000).^{xvii}

In fact, despite a 28% decline in the state's Black infant mortality rate (IMR) between its recent peak in 2004 (19.2 per 1,000) and its 2010 figure (13.9 per 1,000), Wisconsin's 2010 Black IMR in 2010 remained nearly three times higher than the White IMR (4.9 per 1,000), and more than double the state's Laotian/Hmong IMR (6.3 per 1,000).

The leading cause of death among Wisconsin's Black infants is complications of prematurity or low birthweight. Furthermore, prematurity and low birth weight can have significant long-term consequences for those infants who survive their first year of life (and most preterm and low birthweight babies do). As noted in the *HW2020 Baseline Report*, "During 2008-2010, the percentage of low birthweight births among Black women (13.7%) was significantly higher than for any other population in Wisconsin. Over the past 10 years, Black women consistently had the highest percentage of low birthweight births, roughly double the rates in other racial and ethnic groups."

The order and percent of the leading causes of the infant deaths differ among White and African American infants. In 2010, among whites, the leading causes were congenital malformations/birth defects (22.3 percent); preterm and low birth weight (16.5 percent); and SIDS (7.9 percent). Among African Americans, leading causes included preterm and low birth weight (29.1 percent); congenital malformations/birth defects (11.0 percent); and Sudden Infant Death Syndrome or SIDS (7.7 percent). For several of the leading causes of infant mortality, it is possible with comprehensive, culturally competent, and high quality services, to modify the underlying risk factors, such as preterm births, low birth weight and unsafe sleep practices.

National experts in the field increasingly discuss the need for approaches to closing the gap in racial and ethnic disparities in birth outcomes that include an emphasis on a life-course approach,

exposures to early and life-long stress, including racial discrimination, social and economic inequities, and early disadvantages in life.^{xviii} High rates of very preterm births among African American women are discussed in *Place Matters: Variation in the Black/White Very Preterm Birth Rate Across U.S. Metropolitan Areas, 2002-2004*. The authors conclude that factors such as the “degree of segregation” need to be better understood, requiring further research to inform “opportunities for intervention.^{xix}” Finally, recommendations in *Race, Stress, and Social Support: Addressing the Crisis in Black Infant Mortality*, by the Joint Center for Political and Economic Studies Health Policy Institute, include the need to examine the assets within African American communities, support for community-based initiatives, and addressing the conditions that have produced the increase in infant mortality “as a civil rights issue.^{xx}”

Example 2: Lesbian, Gay, Bisexual, and Transgender People

Disproportionate numbers of lesbian, gay, bisexual and transgender people, in particular those from minority populations, die prematurely and experience an undue burden of disease and disability. For example, more than one in three Black/African American men who have sex with men (MSM) in Wisconsin is estimated to be infected with HIV. This compares to 12 percent of Hispanic MSM and 5 percent of White MSM.^{xxi}

Further, important health information usually gathered through government surveys and large research studies about other populations has been absent for lesbian, gay, bisexual and transgender people. At times, information about lesbian and bisexual women has been captured in women's health studies. Gay and bisexual men are generally studied through research on Acquired Immune Deficiency Syndrome (AIDS). Large-scale survey data have not been available for transgender people.

Thus, the national picture about the health of lesbian, gay, bisexual, and transgender people is crafted from numerous smaller studies. Nevertheless, the picture remains consistent and rather grim. For example, the Washington Behavioral Risk Factor Survey found that the odds for poor health were significantly higher for gay men, as were the odds for poor mental health and limited physical activities because of health problems^{xxii}. The same findings held for lesbian and bisexual women; they also had significantly higher risk for developing asthma and diabetes than their heterosexual peers. Researchers have also shown that institutional discrimination in the form of anti-gay-marriage amendments has a deleterious effect on the mental health of lesbian, gay, bisexual, and transgender people living in those states when compared to their peers in states without those amendments.^{xxiii}

Discrimination also likely contributes heavily to the health disparities that exist for lesbian, gay, bisexual, and transgender youth in Wisconsin. High school students who reported same-sex sexual experiences on the 2009 Wisconsin Youth Risk Behavior Survey reported significantly less family and school support and significantly higher rates of bullying, fighting, and experiencing hostility in school than did their peers who reported only opposite-sex sexual contact.^{xxiv} These same youth also reported twice the rate of depression as their peers, six times the rate of serious suicide attempts requiring medical attention, and twice the rate of tobacco use.

Also of great concern is the invisibility in the Wisconsin Youth Risk Behavior Survey results of youth who do not identify as male or female. This Wisconsin survey, conducted in high schools

as part of CDC's Youth Risk Behavior Surveillance System, does not include an option for youth to identify as transgender. In 2009, Wisconsin's State Health Officer joined local community groups to propose an expanded question set for this survey (which is conducted every other year) to the Centers for Disease Control and Prevention in hopes that more questions on gender identity and sexual identity might be added.

Example 3: People with Disabilities

The movement in public health to promote health and improve quality of health previously focused on the prevention of disability only. Nationally, the public health approach toward people with disabilities is shifting, moving away from a focus on preventing disability to one that focuses on responsibility to “promote the health and improve the quality of life of persons who already experience a disability”.^{xxv} This is a welcome change; people with disabilities are increasingly recognized as a public health target population, and efforts are increasing to assure they are identified and studied as a population group, along with groups identified by race, ethnicity and socioeconomic status. *Healthy People 2010*, the nation's public health plan, became a watershed document for the disability community because, for the first time, it directly challenged federal and state agencies to acknowledge and remedy the reality that public health plans and programs were not adequately addressing the needs of people with disabilities.

Most people will experience a disability of some duration at some point during their lives. An aging population and advances in medical intervention resulting in increased survival for events that were once considered fatal contribute to the absolute number of people in the U.S. living with one or more disabilities. Systematic differences in health status and social participation among those with disabilities point to the need for intervention.^{xxvi}

In 2005, the Office of the U.S. Surgeon General issued a paper entitled *The Surgeon General's Call to Action to Improve the Health and Wellness of Persons with Disabilities*. This paper identified the following four goals for the nation: (1) People nationwide understand that persons with disabilities can lead long, healthy, and productive lives; (2) Health care providers have the knowledge and tools to screen, diagnose, and treat the whole person with a disability with dignity; (3) Persons with disabilities can promote their own good health by developing and maintaining healthy lifestyles; and (4) Accessible health care and support services promote independence for persons with disabilities.^{xxvii}

The Institute of Medicine report entitled *The Future of Disability in America* (2007) emphasized the need for increased research dollars to collect information about people with disabilities. While it is known that more than 40 million Americans live with a disability, details about that population and the disparities they face are weak without a comprehensive monitoring system for disability. National data sources provide a fragmented view of the population, with different research entities often collecting data that varies by age group, disability categories, definitions of disability and measurements.

Wisconsin lacks standardized data to accurately describe disparities faced by those with disabilities. National data show that people with disabilities are less likely to have access to timely medical care, health insurance, access to regular dental care, and healthy physical and nutritional behavior. They are also more likely to experience depression, anxiety and emotional

problems than people without disabilities. Fragmented approaches to data collection and analysis limit the capacity to compare disability information across data sets. Existing research documents health disparities across the life span for people with disabilities, with common areas of need in access to good health services, oral health, physical activity, and mental health.

The 2007 National Survey of Children's Health reported that Wisconsin children with special health care needs are nearly four times more likely to have unmet needs for medical, dental, mental health or other health care at some point during the previous 12 months (15.8 percent) compared with children without special health care needs (4.0 percent). Among Wisconsin adults with disabilities, 31 percent have difficulties and/or delays in obtaining needed health care compared to 20 percent of non-disabled adults.^{xxviii}

In Wisconsin, efforts to explore how disability should be incorporated into Wisconsin's public health system are relatively recent, and represent a new and exciting focus for public health throughout the next decade. In 2002, Wisconsin built upon the U.S. Surgeon General's initiative (2002) to address health disparities for people with cognitive disabilities. Wisconsin's plan, *A Wisconsin Blueprint to Improve the Health of Individuals with Developmental Disabilities* (2003), advanced a set of recommendations including the importance of shared responsibility between the Wisconsin Department of Health Services and key disability organizations throughout Wisconsin to promote an improved understanding of health disparities for people with developmental disabilities. This work, along with state and national data, has informed *Healthiest Wisconsin 2020*, resulting in a state health plan that integrates people with disabilities within the public health system; gives attention to population-specific disparities; and reflects an understanding of how public health and disability-related systems can partner in new ways.

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