

# Racial and Ethnic Health Disparities: Influences, Actors, and Policy Opportunities

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## Executive Summary

Much has been written on the existence of racial and ethnic differences in health status and health care access and quality in the United States. Researchers, think tanks, government entities, and advocacy organizations have worked to summarize many of the root causes, environmental and behavioral influences, and health system factors that play a role. Yet sustained and significant change has been elusive. Efforts to reduce disparities will continue to fall short unless the complex interplay of influences are understood and addressed, and synergies among actors who can impact those influences are realized.

The Kaiser Permanente Institute for Health Policy has produced this review and synthesis of the literature to spur thinking and discussion among those who inform, influence, and make public and private policy impacting health. Areas of analysis include the landscape of influences on health disparities, which policy actors are best positioned to intervene, and where those actors may have the most impact. Given the complex nature of disparities, to date most action has focused on individual sectors of health or social policy, such as coverage for the uninsured, linguistically appropriate care, or neighborhood improvements to support healthy eating and active living. This paper posits a broader framework to support multi-sectoral policy actors in addressing different parts of the disparities landscape. The paper aims to equip these actors with a shared language and model to consider the problem and potential solutions, providing a basis for dialogue, development of strategies, and action.

As background, the paper clarifies some of today's common questions on disparities, including what defines "disparities," the roles of race and class, the relationship between disparities in health status and disparities in health care, and how this issue fits with efforts around cultural competency and diversity. We then introduce an adapted ecological model that depicts the landscape of influences on disparities in health and health care by focusing on a series of interconnected factors that impact individual health.

These influences include individual characteristics, interpersonal relationships, organizations in local communities, the physical and cultural community environment, and broader societal characteristics and public policies.

Within that ecological model, we identify four arenas for policy action. These arenas are likely to have the most impact on health disparities and are well-positioned for multi-sectoral collaboration and action. They are:

- 1) Individual socioeconomic circumstances
- 2) Physical and cultural community environment
- 3) Personal management of health
- 4) Health care financing and delivery

For each of these arenas, we analyze relevant medical and public health literature to discern what is asserted or known about connections with health outcomes, and how that can inform decision-making and action. Because of the complexity of these arenas and their impact on disparities, action to address them appropriately requires multidisciplinary actors. We suggest roles for policy actors and provide examples of activities to stimulate dialogue on what types of organizations are best positioned or most appropriate to take on particular aspects of the four arenas.

This paper aims to support thinking, analysis, and discussion that connects the various influences on disparities and focuses on opportunities for various actors to effect change. The complexity of the problem of health disparities – and the uncertainty about optimal solutions – demands ongoing critical analysis of our collective approach. By summarizing and analyzing current thinking about how to define and address health disparities, we hope to provide a platform from which better policy analysis, planning, and action can truly impact the problem.

## Introduction

A voluminous literature documents the existence of disparities between whites and non-whites in many different measures of health care access, care quality, health status, and outcomes, including the landmark 2003 Institute of Medicine report, “Unequal Treatment”.<sup>1</sup> Despite this attention, agreement is lacking regarding the definition, existence, or extent of the problem, let alone the causes and potential solutions. One survey found that 68% of Americans are unaware of the existence of racial and ethnic disparities in health care, with more African Americans and Hispanic Americans than whites saying these differences exist.<sup>2</sup> In another study, 34% of cardiologists surveyed agreed that racial and ethnic disparities in care existed overall in the U.S., but only 12% felt they existed in their own hospital setting, and 5% in their own practice.<sup>3</sup>

This lack of understanding of health disparities – or even denial of their existence – is compounded by the very real complexity of the issue, as evidenced by the multiple factors that influence disparities and the inconsistent ways in which disparities manifest. Are differences based on race or on socioeconomic status? Where people live and the quality of providers they see? Neighborhood, social, and environmental influences? Bias in health care systems? Payment systems and traditions that segregate the care of those with private insurance or Medicare versus those with Medicaid, other public insurance, or no insurance? Individual health beliefs and behaviors? The reality is that all of these factors and others influence disparities, impacting how the problem can be addressed. The causes of disparities cannot be boiled down to a few isolated factors, and oversimplifying the issue would do injustice to efforts to reach equity in health status for all.

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In addition, while differences exist between specific populations on certain measures, care and outcomes may be equal on others. Disparities exist on some indicators to the disadvantage of one non-white population but not another. The Agency for Healthcare Research and Quality’s (AHRQ) 2005 National Healthcare Disparities Report shows that blacks fared worse than whites for 20 of the 46 core quality measures, both groups fared about the same for 21 measures, and blacks had better results for five measures.<sup>4</sup> Clearly, the unacceptable trend is that quality of care is worse for blacks than whites in so many areas, but these variations point to the complexity of the problem and suggest a need for specific analyses and use of multifaceted and targeted solutions.

The broad spectrum of how people think and talk about disparities has the potential to lead to a breakdown in communication and in productive mechanisms for moving forward.

The complexity of the issue – and the different viewpoints about whether or why disparities exist – cannot be allowed to lead to paralysis and inaction in the broad policy community. The United States’ goals for the health status of its people and the quality of its health care systems cannot be achieved without addressing health disparities. To do so effectively, health policy will need to move beyond “sick care” policy and financing issues, and the actors involved will need to expand beyond traditional health policy circles. To assist in this effort, this paper presents information on the common questions related to disparities, outlines how a variety of factors influence health, and posits how different policy actors might collectively address the problem. While pieces of the solution rely on individuals, communities, social and economic conditions, and health care systems, focusing exclusively on any one of those realms is

insufficient. The policy community must recognize the interplay and interconnection of factors related to disparities and work to see that they are all addressed. As the landscape of influences and roles of potential policy actors described here make clear, different entities may have natural strengths and responsibilities toward one realm over another but opportunities for all actors to address the problem from multiple angles remain.

## What Are “Health Disparities”?

### Defining Disparities

Even as community groups, health systems, medical schools, legislators, government agencies, foundations, and others are paying increased attention to the problem of health disparities, no universally accepted definition of the issue exists. Several governmental and advisory bodies have created definitions widely referenced by others: the Institute of Medicine (IOM) has focused specifically on health care, defining disparities as “racial or ethnic differences in the quality of healthcare that are not due to access-related factors or clinical needs, preferences, and appropriateness of intervention.”<sup>1</sup> The Healthy People 2010 initiative has a broader interpretation: “...differences that occur by gender, race or ethnicity, education or income, disability, geographic location, or sexual orientation.”<sup>5</sup> The National Institutes of Health has used the language of the Minority Health and Health Disparities Research and Education Act of 2000, referring to “a population where there is a significant disparity in the overall rate of disease incidence, prevalence, morbidity, mortality, or survival rates in the population as compared to the health status of the general population.”<sup>6</sup> Many initiatives and organizations use similar definitions, with variations on the following factors:

- Health care (access to and quality of health care services) versus health (health status and outcomes, often including health care factors);
- Subpopulations based on race and ethnicity versus other characteristics such as income, educational level, geographical area, language preference, gender, sexual orientation, or age;

- All differences in health versus differences not due to some combination of health care access, clinical need, patient preferences, or appropriateness of intervention.

The variety of definitions speaks to the overlapping nature of many potential influences on disparities. These distinctions also reveal different ways of thinking about potential solutions.

### What’s in a Name?

The use of particular terms to describe the relative health of population groups can frame the issue in different ways, influencing potential approaches. For example, describing these outcomes as “differences” or “variations” generally does not convey a positive or negative connotation; they are dispassionate terms. By contrast, the terms “disparities” and “inequalities” hold negative connotations, that one group is losing or being harmed, and are used to describe between-group differences. Finally, health “inequity” has been described as signifying an ethical or moral judgment<sup>7</sup> and as, “differences in health (that) are not only unnecessary and avoidable but, in addition, are considered unfair and unjust.”<sup>8</sup> The distinction between inequality and inequity has also been described as follows: “Inequity does not refer generically to just any inequalities between any population groups, but very specifically to disparities between groups of people categorized a priori according to some important features of their underlying social position.”<sup>9</sup> This moral or ethical component frames the issue as more than just care consistency or care quality, but as a civil rights issue where one group is unfairly experiencing worse outcomes.

The distinction between an unavoidable difference and an avoidable, unjust difference is not always easy to determine. Observers disagree on which social determinants of health are avoidable, and when higher prevalence of disease in specific population groups is avoidable. When it can be determined, however, that an inequality is avoidable and unjust, it is an inequity.<sup>7</sup> Avoidable, unjust differences are arguably the most important areas for policy action. One researcher suggests that racial variations or

differences may only be considered “disparities” if they cannot be explained by treatment eligibility, patient preferences, or clinical indications and if they have adverse consequences.<sup>10</sup> While it may make intellectual sense, this standard is quite difficult to achieve in large-scale research, which primarily uses administrative databases; the chart reviews necessary to achieve this level of rigor are unlikely in most studies. Therefore, we are left with most research being able to reveal differences or variations, which can be interpreted as disparities, inequalities, or inequities based on the degree to which those differences are thought to be avoidable and unjust. While the term “disparities” is frequently used in the United States, many European countries use “inequities.” Though debate over the use of the term continues, this paper uses “disparities” for consistency with the bulk of work in the U.S.

### **Disparities in Health or Disparities in Health Care?**

One important definitional difference is whether disparities refer specifically to differences in health care, or more broadly to differences in health. In this context, “health care” usually refers to access to or quality of services in the traditional Western medical care delivery system. “Health” refers to overall health status and outcomes related to a complex variety of influences and life experiences, including access to high-quality preventive and curative care as needed.

This distinction has bearing on potential policy opportunities, including which players hold primary responsibility for making change. For example, if defined solely in the context of health care, disparities seem to be the primary responsibility of entities that make up the health care system – physicians, other clinical providers, hospitals, nursing

homes and other non-hospital care settings, academic institutions that train clinical providers, health insurance providers (public and private), and third-party purchasers (employers and government). In this context, potential solutions include approaches such as cultural competency training, access to linguistically appropriate care, expansion of insurance coverage, and support for consistent delivery of known best care practices to all patients. If

defined in the context of health, disparities are also connected to factors outside the medical care delivery system and require a much broader set of stakeholders to address the problem. Potential solutions relate to individual and community-based social determinants of health, such as education, income, neighborhood safety, support for healthy lifestyles, and more.

Disparities in health outcomes very clearly show who is “losing” with higher rates of disease or mortality. In contrast, some aspects of disparities in health care include processes (tests or procedures) or biological outcomes not definitively linked to

health outcomes, for which the ideal rate is not always known. In these areas, it is difficult to determine whether health outcomes for non-whites would improve if their rates for a given test or procedure were the same as the rates for whites. This distinction is important: while disparities in health clearly highlight differences in health and well-being, disparities in health care include factors that are thought to impact health and well-being, but where much is still unknown about the link to outcomes.

### **Roles of Race and “Class”**

Definitions of disparities also distinguish between populations of interest, primarily by race and ethnicity or by socioeconomic status (SES), also known as social class. Traditional SES measures of

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education, income, occupation, and wealth can be described as “crude indicators of location in social structure.”<sup>11</sup> Some researchers describe SES as the most important determinant of racial and ethnic health disparities,<sup>11-14</sup> and have found that health differences between socioeconomic groups are often greater than differences between racial groups.<sup>13,15-17</sup>

At the same time, the majority of studies find that racial disparities are usually reduced but not eliminated after controlling for SES.<sup>1</sup> This result may be due to the independent role race plays in the social determinants of health – including where people live, what schools they go to, what job opportunities they have, what income they receive for jobs – as well as the stress and anxiety that can result from racial discrimination. Thus both race and SES influence disparities, with overlapping and independent factors at work.<sup>16</sup>

While many other countries focus on health differences by SES,<sup>11</sup> most of the research, initiatives, and media reports on disparities in health and health care in the United States have focused on racial and ethnic disparities. The focus on race in the U.S. is not surprising given this nation’s history of racism and discrimination<sup>13</sup> and the diversity of the population. In addition, though far from perfect, data on race and ethnicity have been much more readily available than data on SES in the U.S.,<sup>13,16</sup> making disparities by race and ethnicity easier to assess within the large, retrospective analyses that comprise much of the health disparities literature. These data drive researchers to answer the questions they are able to answer – namely, whether differences by race and ethnicity are present – when analyses of differences by SES might have also yielded compelling results.

The interplay between race and SES is important. Some populations of color are disproportionately

represented in low-income groups in the U.S. Of people in poverty, 54% are people of color (who make up 33% of the total population).<sup>18</sup> Therefore a focus on racial and ethnic disparities relates to over half of the population in poverty, though the interventions to alleviate those disparities will likely differ between higher and lower income groups.

Educational differences are also observed by race. The 2000 Census found that while 86% of non-Hispanic white adults ages 25 and over had attained a high school degree or higher, lower rates were observed for Hispanics (52%), African Americans (72%), American Indian/Alaska Natives (71%), Asians (80%), and Native Hawaiian/Pacific Islanders (78%).<sup>19</sup>

The question of whether disparities are an issue of race or an issue of socioeconomic status is a false choice – there are disparities by race, there are disparities by SES, and these factors are intertwined but also likely play distinct, independent roles. Difficulty in distinguishing the relative role of

race versus SES may impact approaches to defining the problem and identifying potential solutions. The policy and advocacy community should avoid getting mired in this distinction when considering which issues are more important or worthy of attention – both race and SES are crucial factors in health disparities, and policies to address their different roles are necessary to confront the problem fully.

### **Cultural Competency and Workforce Diversity**

The increasing attention to and even use of the term “health disparities” in recent years is predated by two major intertwined efforts in health care and beyond: cultural competency and workforce diversity. Though these areas clearly overlap, there are important points of distinction.

As with disparities, no single definition of cultural

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competency in health care exists. Most definitions include one or more of the following components: understanding the role of culture in health and health care; supporting effective interpersonal interactions between clinicians and patients from different racial and language backgrounds; and developing health system characteristics that support the care of diverse populations. One of the most commonly cited definitions covers all of these aspects and is not limited to health care: “Cultural Competence is a set of congruent behaviors, attitudes, and policies that come together in a system, agency, or among professionals and enables that system, agency, or those professionals to work effectively in cross-cultural situations.”<sup>20</sup>

Historically, approaches to culturally competent health care have focused on providing patients with linguistically appropriate services and teaching clinicians about specific cultures. This approach has evolved and become more aligned with the broader “patient-centered care” movement, which emphasizes skills in listening and communicating effectively and eliciting and respecting patients’ beliefs and values.<sup>21</sup> Cultural competency has also expanded beyond the original focus populations – immigrants and individuals with limited English proficiency – to include all populations impacted by health disparities.<sup>22</sup> Although the culturally competent and patient-centered care movements both emphasize viewing patients as unique individuals, exploring and respecting patient beliefs and values, and building trust, there are distinctions. For example, patient-centeredness also emphasizes continuity of care, access issues such as same-day appointments, and physical comfort of patients, while cultural competency emphasizes workforce diversity, partnering with communities, and effective use of interpreter services.<sup>22</sup> Though these movements evolved to address different problems, improvement in one realm is likely to yield improvement in the other.

Some consider achieving diversity in the health care workforce as one part of cultural competency. Not surprisingly, many interpretations of diversity or

multiculturalism exist, usually including one or more of the following components: cultural awareness, knowledge, and respect; recognition and appreciation of differences; increased representation of underrepresented groups within organizations; effective communication among diverse groups or teams; addressing prejudice, discrimination, and racism; and acknowledgement of social inequities and power imbalances.<sup>23</sup> Diversity efforts within health care organizations may focus on workforce diversity (improving the hiring and retention of people from underrepresented groups), workforce skills (training in effectively caring for people from diverse cultures), or linguistic access for patients – all of which overlap with cultural competency.

### **The Lens Affects the View: Civil Rights or Health Care Quality**

Different (though not mutually exclusive) perspectives exist about whether to define and approach the issue of racial and ethnic health disparities as a civil rights/social justice issue or as a health care quality issue. The use of either lens influences how the problem is described, who is seen as responsible for addressing it, and what kinds of techniques should be used to do so.

Since Title VI of the Civil Rights Act of 1964 mandated the desegregation of hospitals in the U.S., much of the focus on racial disparities in health status and health care has emphasized social justice and civil rights. Through this lens, the imperative to eliminate disparities is driven by the moral stance that all people deserve the same opportunity to achieve good health and well-being. This framing draws on the knowledge of how race has historically affected many aspects of life in the U.S., including education, housing, employment, and transportation.<sup>24</sup> This perspective views racial and ethnic health disparities as evidence of “the unfinished civil rights agenda”<sup>25</sup> and cites persistent segregation in many aspects of society (including health care) as a key contributor to health disparities.<sup>26</sup>

The civil rights lens emphasizes the role and impact of laws in reducing inequalities, including the

desegregation of hospitals, creation of publicly financed health care programs, and establishment of community health centers in underserved communities.<sup>24</sup> A key point of leverage within this framework is the use of litigation based on violations of civil rights law. Challenges in using this construct to create change include the difficulty proving discrimination and the historic lack of rigorous federal oversight to civil rights compliance.<sup>24</sup> Strengths of the social justice/civil rights lens include the “call to action” it inspires, the moral and ethical imperative it represents, and its inclusion of the role of social determinants of health, as well as the health care system, to understand why health disparities exist and what can be done to eliminate them.

A framework specific to health care disparities is centered on health care quality, where one component of widespread deficiencies<sup>27</sup> is the lower quality care received by certain subpopulations. Greater attention to overall quality in health care and variations in care has increased prominence of this lens on disparities, helping to establish disparities as “a mainstream rather than a marginal issue”<sup>28</sup> amenable to traditional health care quality improvement frameworks and methodologies.<sup>29</sup> As people of color represent some of the fastest-growing segments of U.S. society, reduction (and ultimately elimination) of racial and ethnic health disparities is essential to continue improving overall quality of care. To date, this framework has focused almost exclusively on what happens inside the health care system or on efforts to increase or improve use of health care services, and does not address upstream socioeconomic determinants of health or access to care.

The quality lens can focus on specific subpopulations or more broadly on care improvements for the whole population around specific disease areas, procedures, or processes. Observers disagree on how much disparities can be reduced by quality improvement efforts that do not specifically focus on racial, ethnic, or socioeconomic subpopulations, and whether the goal of quality improvement should be to reduce such disparities or to improve outcomes for all

groups. Some claim that such efforts initially may have a greater impact among more socially and economically advantaged groups who are more able to access and adhere to new technologies or care standards, potentially increasing disparities even if overall population health improves.<sup>30</sup>

Historical examples demonstrate improvements in health status while disparities persisted or even grew. For example, while black infant mortality in the U.S. fell from 43.9 deaths per thousand live births in 1950 to 13.8 deaths per thousand in 1998, the disparity compared to whites actually grew from a 64% higher mortality rate for blacks in 1950 to 130% higher in 1998. At the same time, the greatest absolute gain was among black babies – in every five-year period since 1965, more deaths were avoided for black babies than for white babies. This is an example of improvement in population health, including large increments of improved health for blacks, but an increase in disparities.<sup>30</sup>

One of the first studies of the impact of general quality improvement efforts on disparities analyzed a Medicare initiative for hemodialysis patients. That study found a near doubling of the proportion of patients with an adequate hemodialysis dose and a change in the black/white gap from 10 percentage points to 3 percentage points – a reduction (but not elimination) of the disparity while quality vastly improved for both groups. However, for another measure, quality improved significantly for both groups but the disparity did not narrow, and for a third measure quality did not improve overall and disparities persisted.<sup>31</sup> A more recent study of Medicare managed care beneficiaries showed that improvements in overall quality of care were associated with reduced racial disparities.<sup>32</sup> These mixed results show the potential role for quality improvement efforts in addressing disparities, but demonstrate they are insufficient for elimination of disparities. They also highlight the various options for defining progress, including reduced disparities, improved outcomes for the less advantaged population, or improved outcomes for all populations.

Framing disparities as a social justice issue or a health care quality issue is not an either/or proposition. Those aiming to impact disparities should focus on the social justice aspects of disparities as a call to action and as a framing that underscores the importance of upstream determinants of health. At the same time, those actors can focus on racial disparities in quality indicators as part of the overall deficiencies of the health care system. Understanding the factors that influence disparities in a given population or setting will help determine when solutions might primarily emphasize one of these lenses over the other.

### Reducing Disparities: Influences and Opportunities

#### Understanding the Landscape

While the existence of disparities in many aspects of health status and health care has been well documented, solutions for reducing disparities are less clear. Consideration of solutions is best accomplished with an understanding of the landscape of influences on health disparities, as well as the potential policy arenas and actors to effect change. Our effort to describe the landscape, arenas, and roles of actors is strongly informed by the excellent work of others – notably, PolicyLink, the Prevention Institute, and the Institute of Medicine (IOM).

PolicyLink has described a framework for understanding the ways in which neighborhoods and communities affect health. These influences include the social and economic environment (neighborhood economic conditions, social support networks, cultural values and norms, community leadership and organization, and reputation of the neighborhood), the physical environment (environmental quality, physical spaces, public safety, mobility, and physical access to opportunities throughout the region), and services (health services and community/public support services).<sup>33</sup>

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The Prevention Institute has identified three “critical pathways” leading to disparities in health, including root factors, behavioral and environmental factors, and medical services. In this model, root factors (discrimination, impoverished communities) shape behaviors and environmental influences (built environment, social capital, services and institutions, and structural factors). When these factors are

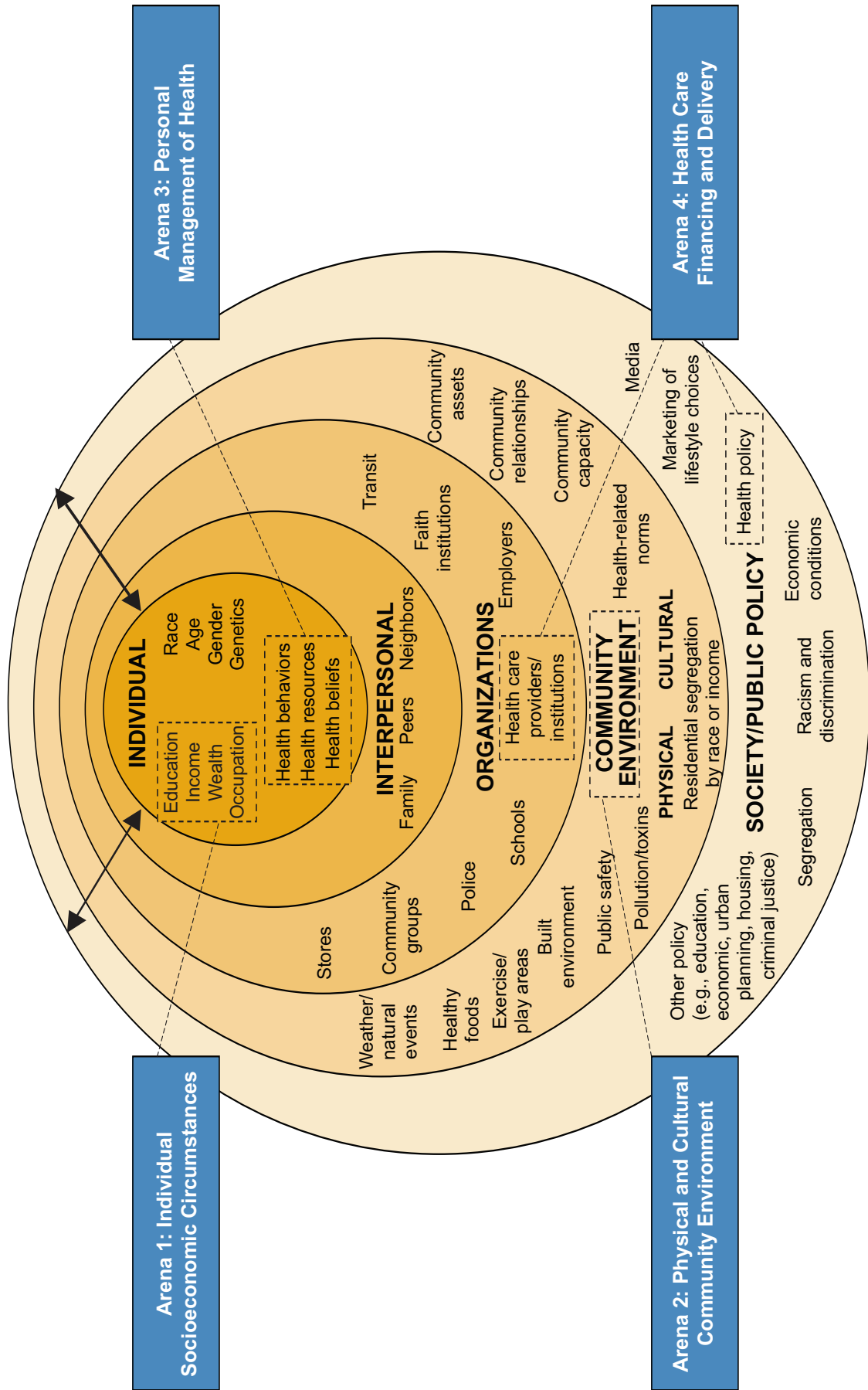
combined with lack of access to medical care and lower quality diagnosis and treatment, differences in health outcomes occur.<sup>34</sup>

In addition to summarizing evidence on the existence of racial and ethnic disparities in health care, the IOM has described and analyzed potential sources of disparities not due to access, clinical needs, preferences, and appropriateness of intervention. These sources include bias,

discrimination, and stereotyping at the individual, institutional, and health care system levels.<sup>1</sup>

The information presented in subsequent sections brings together many of the influences described in those three models (and others) within an adapted “ecological model,” with additional detail on arenas for policy action. This model is not intended to describe rigorously the entire universe of influences on disparities, the interrelated nature of many of these influences, or all of the potential policy actors that could have a role in reducing disparities. Rather, it is intended to stimulate thinking and discussion on many of the most important factors, policy opportunities, and actors to help support prioritization and action across the entire disparities landscape. Figure 1 (see page 9) depicts the landscape of influences on disparities and the key policy arenas.

Figure 1: Landscape of Influences on Health Disparities and Arenas for Policy Action



## Adapting the Ecological Model

Describing the influences on health disparities requires examination of factors within and outside the individual that influence health behaviors and outcomes. A useful construct for such analysis is an “ecological model.” Much of the use of ecological models in public health has been to describe the influences of individual and environmental factors on health behaviors, to identify targets for health promotion interventions.<sup>35</sup> While the traditional ecological model focuses on behaviors, this adaptation for health disparities also recognizes how these factors directly influence health status or outcomes themselves.

The nested circles depicted in this version of the ecological model represent the idea that individuals exist within, influence, and are influenced by their interpersonal networks, organizations in their communities, the physical and cultural environment, and larger societal and policy circumstances. This “transactional model” shows reciprocal influence and causation between individuals and the environment<sup>35</sup> – for example, individual income impacts the economic condition of a community, and employment opportunities in a community impact individual income and employment status. The model also depicts characteristics and actors that have direct and indirect impacts on health, and recognizes the interaction between some of these factors, such as race and education, that may have independent and intertwined effects on health. The ecological model conveys the complex causality of health disparities, and recognizes that policies to address only one of these “levels” are insufficient.

- The “**Individual**” level includes a variety of factors that influence health: personal characteristics that are immutable (race, age, biological gender, and genetic profile), as well as

characteristics that are potentially alterable with adequate support systems (socioeconomic factors such as education, income, wealth, and occupation; and health-related behaviors, resources, and beliefs). This level represents both an actor (the individual) and characteristics of that actor that influence health.

- The “**Interpersonal**” level includes those first-line support systems for and influences on individuals, such as families, peers, and neighbors. These actors have opportunities to impact positively or negatively those potentially alterable individual characteristics described above and help to establish community or cultural norms that influence health.
- The “**Organizations**” level includes actors in the immediate community that influence (and are influenced by) the individual and interpersonal levels, as well the broader community environment level. For example, school quality affects the educational level (hence future occupation and income) of individuals in the community, and concentration of poverty (or wealth) at the community level affects school quality. These organizations may enable or discourage activities at the individual or community levels that support health.
- The “**Community Environment**” level includes both physical and cultural characteristics of communities that can affect health of individuals. Physical aspects include factors with direct effects on health, including pollution or toxins (such as air pollution, lead paint, mold) and crime (including physical harm), as well as factors with indirect effects on health. Indirect factors include other aspects of public safety/crime (such as stress), the built environment (including condition of buildings, general cleanliness/order,

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density), availability of health-supporting resources (including healthy foods, safe places to exercise or play, health care providers), and residential segregation. Cultural aspects include community relationships and capacity (including trust of and reliance on one another, engagement in civic issues, ability to organize), economic inequality or concentration of poverty, and health-related norms that support or discourage healthy behaviors and lifestyles.

- The “Society/Policy” level includes factors that influence health across multiple communities. This broad category includes policies or social circumstances that impact all of the inner circles. The focus in this model is on a few key policies or circumstances with broad general impact on health disparities: health care policies, economic conditions, racism and discrimination, segregation, media, and marketing of lifestyle choices. Policy issues specific to education, housing, urban planning, criminal justice, and employment also have clear roles in influencing health but are beyond the scope of this model to describe.

## Arenas for Policy Action

In addition to describing the overall picture of individual, community/environmental, and policy factors that influence health behaviors and outcomes both positively and negatively, this adapted ecological framework identifies four major arenas for policy action:

- 1) Individual socioeconomic circumstances
- 2) Physical and cultural community environment
- 3) Personal management of health
- 4) Health care financing and delivery

These policy arenas were identified due to the strength of the literature connecting them to health. The arenas, like the ecological model itself, are interrelated and influence one another. Combined with the fact that most studies examining these factors can only demonstrate association with health status or outcomes, not causation, it is difficult to

identify what policy actions or changes within these arenas would result in improved health outcomes for target populations. However, examining what is known about these associations – as well as identifying gaps in research and knowledge – is critical to developing interventions with the potential to improve health outcomes and reduce disparities.

## Arena 1: Individual Socioeconomic Circumstances

As previously discussed, socioeconomic status (SES) is usually described or measured as some combination of education, income, wealth, and occupation. The relationship between socioeconomic factors and health is not completely understood, but differences in health status and health care access and quality by income and education are well documented,<sup>4</sup> with higher SES associated with better health status and vice versa. This relationship has been demonstrated not just for the highest and lowest SES levels, but among all gradients: in general, the middle class has better health status than the lower class, and the upper class has better health status than middle class,<sup>11-13;36-40</sup> even when controlling for individual health risk behaviors.<sup>41</sup> In addition to this “wealth-health gradient,” unequal distribution of income (in contrast to absolute income level) has also been linked to differences in mortality.<sup>12;30;42;43</sup>

Evidence supports the positive association between SES and health, but low SES in and of itself does not cause poor health in most cases. Rather, SES may serve as a proxy for intermediary factors that directly affect health, such as stress, or other factors connected to health outcomes, such as timely access to high quality medical care and knowledge, social connections, or financial resources to manage health needs. For example, education is associated with several important intermediary factors connected to health, including self-efficacy, knowledge, control over work, and coping abilities,<sup>30</sup> and lower income is associated with worse primary care access, care coordination, and doctor-patient relationships.<sup>44</sup> Overall, the specific intermediary factors between SES and health are not well understood.

Though the association between SES and health is clear, it is less clear how interventions to address SES may improve health and reduce health disparities. SES characteristics are correlated but are not interchangeable, and the direction and magnitude of interactions between them are not well understood.<sup>45</sup> These relationships make it difficult to determine whether policies to improve education would drive improvements in income, or whether policies to improve economic security would result in greater educational attainment – or whether either of these scenarios would result in improvements in health, and by which mechanism. It is also unclear which SES characteristic has the biggest influence on health. Several studies have performed statistical analyses to identify the relative influence or weight of individual SES factors on different health outcomes, and have had varying results.<sup>40,41,46</sup>

Given the association between education, income, and health, it is possible that policies encouraging greater quality and quantity of education may well have health benefits. Similarly, changes in income distribution may affect health status and outcomes, but little research has been done on this question in the U.S.<sup>12</sup> The analytical and empirical linkages are not tight. Despite these limitations, the association between socioeconomic factors and health disparities is clear. Because SES plays a critical role, a comprehensive approach to disparities must consider opportunities for addressing socioeconomic factors.

## **Arena 2: Physical and Cultural Community Environment**

The second major arena for policy action to reduce health disparities is the physical and cultural community environment. Many studies have examined how individual health is affected by community-level factors, with findings frequently showing a connection between neighborhood of residence and health status or mortality even after controlling for individual socioeconomic, demographic, and/or behavioral characteristics.<sup>33,47</sup> However, the observational (non-experimental) design of these studies and interrelated nature of many factors makes it difficult to determine causation

and fully interpret findings in some cases.<sup>48</sup> In other words, it is difficult to identify which specific neighborhood factors have the biggest impact on health status of residents and therefore where the greatest policy opportunities exist. Examples of some specific study findings are summarized below.

### **Physical Environment**

Physical aspects of communities have both direct and indirect effects on the health of residents. Factors that can have direct physiological effects on health include:

- Pollution, toxins, or other harmful substances in air, water, and housing (such as lead paint, cockroaches, or dust mites);
- Natural disasters and extreme weather;
- Injuries due to violent crime;
- Stress due to deterioration of the built environment, such as graffiti and deteriorated or abandoned buildings; and
- Stress due to neighborhood crime/public safety issues.

Numerous studies demonstrate the connection between these aspects of the physical environment and differences in health outcomes. One analysis found that black Americans are 79% more likely than whites to live in neighborhoods with the highest risk scores for industrial pollution, which are linked to asthma, bronchitis, and cancer.<sup>49</sup> Another study found that higher blood lead levels in black urban children compared to whites is significantly determined by differences in housing conditions and related exposures to lead-contaminated house dust.<sup>50</sup> Another found that “broken windows,” a measure of the physical environment of neighborhoods (including the extent of litter, broken glass, trash, graffiti, and vacant or deserted buildings) influenced premature mortality independent of concentrated poverty.<sup>47</sup> In addition, neighborhood risk factors have been determined to account partially for racial disparities in homicide.<sup>51</sup>

The physical environment can also indirectly influence health behaviors and resources of residents.

Examples include:

- Availability of safe and clean exercise and play areas (such as bicycle paths, walking trails, parks, and playgrounds);
- Availability of affordable, healthy foods; and
- Access to other services that support health.

Numerous studies support the association between these factors and health. The greater prevalence of fast food outlets and liquor stores and lower prevalence of healthy food outlets in predominantly non-white or low-income neighborhoods have been documented repeatedly,<sup>52</sup> and are logical factors in greater overweight and obesity in those communities. Neighborhoods with higher concentrations of poor and minority residents are less likely to have facilities for physical activity, such as parks, public recreation or athletic facilities, YMCA sites, or private athletic clubs compared to areas with higher socioeconomic status. The presence of fewer of these facilities is associated with increased overweight and decreased odds of regular physical activity among adolescents.<sup>53</sup> A study examining the availability of foods recommended for people with diabetes found that only 18% of grocery stores in a predominantly non-white neighborhood in East Harlem, New York stock five recommended foods, compared to 58% of stores in the predominantly white and affluent Upper East Side of Manhattan, although these neighborhoods are adjacent.<sup>54</sup>

In addition to access to services that support physical activity and good nutrition, the community environment impacts health by influencing residents' access to other types of services, such as health care. We will examine the role of health care factors in greater detail in the discussion of Arena 4: Health Care Financing and Delivery. However, several studies specifically examine the link between neighborhood poverty or segregation and individual health due to access to health care resources. Among black women, living in a high-poverty neighborhood is associated with increased risk of not having a cervical cancer screening (Pap smear) in the past two years, independent of individual risk factors such as lower education, older age, obesity, and smoking.<sup>55</sup> Even

after controlling for individual and area-level factors, blacks report financial barriers to health care and more difficulty obtaining care if they live in a county with a high prevalence of black residents.<sup>56</sup> Pharmacies in minority zip codes were found to be 52 times less likely to have adequate supplies of opioid analgesic pain medications than pharmacies in white areas, regardless of income in that zip code.<sup>57</sup>

### **Cultural and Economic Environment**

The cultural and economic factors that influence health can be generally described as (1) racial, economic, and socio-cultural characteristics of neighborhoods and (2) social capital/community capacity and interpersonal connections.

Though causality is not completely understood, numerous studies have found an association between concentration of poverty, residential racial segregation, or concentration of at-risk households (e.g., those headed by single mothers, recent immigrants) and health status of individuals within that community (even when controlling for other individual-level factors that may also influence health status). For example, living in more disadvantaged communities is independently associated with higher Body Mass Index (BMI) among black adults, controlling for individual factors including age, race, individual SES, smoking, physical activity, stress, and social support.<sup>58</sup> Affluence of neighborhood has been shown to contribute positively to self-rated health and explains a portion of the association between race and self-rated health among older people.<sup>59</sup> Cities with greater racial residential segregation have been observed to have a higher degree of disparity in black/white infant mortality than cities with less segregation.<sup>60</sup> As these studies demonstrate, the cultural and economic environment impacts the health of individuals in that community.

Social capital and community capacity describe relationships within communities and connections to broader groups and resources that enable communities to thrive and advocate for action and improvements. Interpersonal relationships, interdependence, and trust are important community

influences on individual health. One review found that the stronger a community's "social capital," the higher the health status of members of that community.<sup>61</sup> Another study found that "collective efficacy," a measure of individuals' willingness to help out for the common good and neighbors' relationships with one another, independently influenced premature mortality.<sup>47</sup>

### **Arena 3: Personal Management of Health**

How individuals respond to health needs can impact their health status and outcomes, and may contribute to health disparities. Therefore, another opportunity for intervention is in the realm of personal management of health, including health behaviors, resources, and beliefs.

Health behaviors include nutrition, physical activity, stress management, smoking, alcohol use, drug use, sexual practices, prenatal care behavior, and health care-seeking behavior. The contribution that these behaviors may make to health disparities is not well understood. Though not analyzed by race, the Centers for Disease Control and Prevention have produced a series of analyses focusing on the influence of external, non-genetic factors on mortality.<sup>62,63</sup> These data have shown that tobacco, poor diet, and physical activity are behind about one-third of all deaths in the U.S.,<sup>63</sup> and that, overall, 50% of premature deaths could be attributed to lifestyle and behaviors, 20% to environmental factors, 20% to biological determinants (inherited and genetic factors), and 10% to inadequacies in the health care system.<sup>64</sup> Although these analyses focused on mortality, not morbidity or quality of life, the finding that lifestyle and behaviors have such a large impact on health outcomes demonstrates the need for any effort to improve health status to focus on the multi-level influences on behaviors.

#### ***Role of Community Environment***

Health behaviors are greatly influenced by community-level factors, including racial and economic segregation, public safety, and availability of health-supporting resources such as exercise and play spaces and healthy food vendors. These factors

were explored in detail under Arena 2, but it is worth reinforcing that efforts to improve individual health behaviors without addressing community influences are not likely to achieve broad success.

#### ***Role of Socioeconomic, Racial, and Cultural Factors***

Many differences in health behaviors are more strongly associated with socioeconomic factors than race. Studies have shown that people with less education and lower income are more likely to smoke, those with lower income are less likely to succeed at quitting if they try, and low SES is associated with a more sedentary lifestyle and less healthy diet.<sup>12</sup> Adolescents from more socioeconomically deprived neighborhoods are more likely to engage in behaviors associated with a long-term risk of cancer, including smoking, eating a high-fat diet, and being overweight, with most differences persisting even after controlling for race and ethnicity.<sup>65</sup> Researchers have found similar associations between physical activity and income level.<sup>66</sup>

The CDC's National Health Interview Survey (NHIS) examines patterns in health behaviors among racial groups, but the data are difficult to interpret because they do not control for socioeconomic status. In addition, the data show inconsistent patterns of potentially harmful health behaviors among different racial groups. While the survey found that more white adults smoke cigarettes regularly compared to black and Hispanic adults, white adults are also more likely to engage in leisure-time vigorous physical activity three or more times per week and less likely to be overweight or obese compared to black and Hispanic adults. In addition, adults with higher education and income are less likely to smoke, more likely to drink regularly, and more likely to engage in physical activity.<sup>67</sup> Another study found that among middle-aged adults, the difference in leisure-time physical activity between racial and ethnic groups is almost entirely attributable to differences in educational level and health status (raising the question of the direction of the relationship between health and physical activity in this age group), and that once

work-related physical activity is counted, total physical activity is similar across groups.<sup>68</sup>

Other cultural and interpersonal influences also play a role in health behaviors. One U.S. study found that the odds of being a daily smoker were lowest among foreign-born individuals, and that being a second-generation immigrant with two immigrant parents was also associated with not smoking.<sup>69</sup> Overall, the relative influence of race, income, education, health status, other cultural attributes, or some combination of these characteristics on health behaviors is not well understood.

### **Role of Health-Related Resources and Beliefs**

Health-related resources and beliefs, including why individuals engage in specific behaviors and how they approach health needs, also influence health status. They impact whether individuals engage in preventive or curative health behaviors, what they do when a health need arises, and whether they can optimally engage with the health care system if necessary. These resources and beliefs include:

- Self-efficacy – belief in one’s ability to influence events that affect one’s life<sup>70</sup>
- Knowledge of benefits to engaging in specific behaviors
- “Personal health ecology” – norms and beliefs about health, source and meaning of illness, when to seek care and from whom<sup>71</sup>
- Knowledge of options for managing health needs
- Understanding of and agreement with rationale for health behaviors and treatments
- Ability to pay for services or products that address health needs
- Proximity and ability to get to physical location of services/products
- Ability to access information or services in preferred language
- Belief and trust that care source will be relevant, respectful, and effective
- Consistent connection to a care source

Individual beliefs and understanding about health reflect a “personal health ecology” or “health belief model.” Personal health ecologies have been

described as “personal health systems consumers create to manage their health and support their health care decisions,” including “a broad set of resources, practices, and strategies...to pursue health, make decisions, and interact with the health care delivery system.”<sup>71</sup> These resources include behaviors and beliefs about health, the source and meaning of illness, and when to seek care and from whom. These individual beliefs can be influenced by families, peers, and neighbors (the “Interpersonal” level in our adapted ecological model), local organizations that educate and influence actions, and the community environment.

Other aspects of individual beliefs include an understanding of and agreement with the rationale for engaging in certain health behaviors or treatments. One study of how such perspectives can translate into health status focused on belief in the role of lifestyle changes in controlling high blood pressure. It found that blacks and Hispanics were more likely than whites to see medication as the only way to control high blood pressure, while whites were more likely to cite the importance of diet, exercise, and other lifestyle changes such as decreased alcohol use, even when controlling for education level. The belief that medications were not the only way to treat blood pressure was significantly associated with higher rates of blood pressure control.<sup>72</sup> Such differences in health knowledge or beliefs can play an important role in how health needs are managed.

Trust and belief that a care source will be relevant, respectful, and effective can significantly influence what individuals do when they have health needs. Several studies have described racial differences in trust in physicians or other clinical providers, with lower levels of trust more likely among blacks compared to whites even after adjustment for socioeconomic status.<sup>73-75</sup>

In addition to norms and beliefs, resources such as the ability to pay for services influence how individuals approach health needs (and are clearly connected to Arena 1, Individual Socioeconomic Circumstances). Evidence shows racial differences in

such resources and how those impact health-seeking behaviors. For example, the 2004 National Health Interview Survey found that a greater proportion of blacks, Hispanics, and American Indian/Alaska Natives do not receive medical care or delay care due to cost compared to whites.<sup>76</sup>

Targeted policies that support and encourage healthy behaviors, such as smoking cessation programs, ensuring availability of healthy foods in local stores, and making neighborhoods safe and accessible for walking and biking, could help to address the contributions that health behaviors and beliefs make to health disparities if appropriately tailored to the target audience.<sup>12</sup> Numerous policy opportunities exist to help ensure equal access to information, resources, and supports needed to engage in healthy behaviors.<sup>12</sup> Examples of such opportunities are included in the section on “Roles for Policy Actors.”

#### **Arena 4: Health Care Financing and Delivery**

Despite the clear influence that community factors have on individual behaviors and health outcomes, much of the national dialogue around racial and ethnic health disparities in the United States has centered on the role of the health care system – differences in access to the system, and differences in the quality of service and care. This focus may be because health care system processes, providers, data collection practices, and the connection between health care and health outcomes are more easily observed and defined – and may seem more easily addressed – than broad social determinants of health. The increased focus on health care quality in recent years is another reason that health care has been so closely linked to disparities, as differences in quality along racial lines are serious concerns for health care institutions and policymakers.

Disparities in medical care have been well documented in hundreds of medical journal articles, many of which are summarized in the landmark Institute of Medicine report of 2003, “Unequal Treatment.”<sup>1</sup> Such disparities continue to be tracked annually in the National Healthcare Disparities Report.<sup>4</sup> Numerous initiatives are underway around

the country, attempting to address these disparities by focusing on access to and quality of care. There are several important health system or health policy factors that influence access and quality, and thus merit analysis regarding their impact on disparities.

#### **Geographic Location**

Geographic variations in health care practices and quality in the U.S. are well documented.<sup>77-80</sup> It is not surprising, therefore, to find geographic variations in the extent and type of racial and ethnic disparities in health care. Several recent studies have documented such differences, with most focusing on comparisons of care for black and white Medicare fee-for-service patients. (These patients have similar insurance coverage and data are readily available.) Key findings include:

- The majority of black patients receive care from a relatively small number of providers, and these providers are more likely to demonstrate lower performance on key quality indicators.<sup>81</sup> For example, nearly 70% of all black heart attack patients in fee-for-service Medicare are treated at just 20% of hospitals. At hospitals treating the greatest number of black heart attack patients, mortality rates are 19% higher than at hospitals that see only white patients, even when adjusting for several potentially confounding patient and hospital characteristics.<sup>82</sup>
- Most doctor visits by black patients are clustered among a subset of physicians who provide only a small percentage of care to white patients. These physicians are less likely to be board certified and report more difficulties in getting access to high-quality specialty care, diagnostic imaging, and non-emergency admission to the hospital.<sup>83</sup> This clustering may be influenced by geographic location of providers and residential segregation, as well as other factors such as insurance status of patients or provider payment rates, impacting which physicians accept which patients. Those factors are discussed in more detail below.
- Wide variations exist in extent and type of racial

disparities from one geographic area to another, and areas with large disparities on one clinical indicator are not consistently more likely to have disparities on other indicators.<sup>81,84</sup>

- Racial disparities are not clustered in just a few geographic areas of the country – they are observed across regions.<sup>81</sup>
- Some geographic areas with smaller disparities have lower overall quality (for both blacks and whites) than some areas with larger disparities, raising the importance of looking at both absolute and relative numbers.<sup>81</sup>
- Disparities exist both within and between geographic regions, and the between-region differences are influenced by residential segregation. For some quality indicators, the quality of care received by blacks (and whites) goes down as the black population in that area increases.<sup>84</sup>

These findings have several implications for policy. First, geographic variation demonstrates the importance of unit of analysis when measuring disparities. If disparities are assessed at the national level, regional variations can be obscured, making targeted interventions more difficult. Second, finding disparities in a given geographic area on a particular quality indicator does not necessarily mean disparities are present on all other indicators. This variation underscores the importance of understanding a broad picture of disparities, and of analyzing the proximate influences on particular health care disparities – for example, whether a small number of physicians or hospitals are driving results and can be targeted for interventions.<sup>84</sup> Third, these differences raise the question of whether targeting customized care and service quality improvement efforts in specific small geographic regions across the U.S. would be the best approach to achieve early success in reducing care disparities.

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### **Patient Insurance Status and Type**

Insurance is one of the key determinants of timely, reliable access to health care services, as it removes barriers to certain providers (who may only accept insured or privately insured patients) and in most cases removes a substantial portion of the cost barriers. However, insurance varies in terms of benefits and where it is accepted, and simply having it is no guarantee of access to necessary or high-quality care. Many studies of countries with universal coverage<sup>85-91</sup> or populations with similar insurance such as Medicare<sup>92,93</sup> have demonstrated persistent health care disparities by race and/or income, though these disparities are sometimes reduced compared to populations without equal insurance.

Because insurance does play a role in determining whether, when, and where people receive care, racial differences in coverage may influence health disparities. People of color are disproportionately represented among the uninsured and among people on Medicaid. While about 13% of whites are uninsured, the rates are much higher for Hispanics (33%), Native Americans (25%), African Americans (21%) and Asian Americans (18%).<sup>94</sup> African Americans and Hispanics are much less likely to be privately insured and more likely to be publicly insured than whites.<sup>95</sup> While less than 9% of non-elderly whites are insured through Medicaid, rates are substantially higher for African Americans (25%), Hispanics (21%), Native Americans/Alaska Natives (25%), and multiracial individuals (21%).<sup>96</sup>

Patient insurance status and type can influence the type of facility where patients access care, which could affect health outcomes and contribute to disparities. The uninsured and publicly insured are more likely to receive care in public hospitals, while the privately insured are more likely to receive care in private hospitals, even when they are located in the same area. A survey of New York hospitals found that even within the same institutions, the uninsured and

publicly insured were more often seen by less experienced physicians at different locations (such as hospital clinics staffed by medical residents) compared to privately insured patients.<sup>97</sup> One study found that the privately insured were offered appointments within a week for follow-up to earlier emergency care significantly more frequently than those with Medicaid coverage, most of the time without inquiry into the severity of the caller's medical need.<sup>98</sup> The limitation of where Medicaid patients can access care is connected to an ongoing dearth of physicians who will accept Medicaid. Low Medicaid payment rates are likely not the only factor in determining these patients' ability to access care. A recent analysis found that physicians were significantly less likely to participate in Medicaid in areas where the poor are non-white and in areas that are racially segregated<sup>99</sup> – areas that may need Medicaid providers most in order to improve access and reduce disparities.

Insurance status and type also influence patients' decisions to seek medical care. One recent report found that uninsured adults are four times more likely than insured adults to avoid seeing a doctor for medical care, and that 41% of uninsured adults were unable to see a doctor when needed in the previous year because of cost, compared to 9% of adults with insurance coverage.<sup>100</sup>

Some studies have attempted to assess how these access barriers impact health disparities. A review of four studies concluded that health insurance explains anywhere from 5% to 42% of the disparity in access to a usual source of care for Hispanics and African Americans compared to whites, with most findings ranging from 23% to 33%.<sup>101</sup> One of those studies also found that these racial and ethnic access disparities persist even among people with stable private insurance, and factors such as local and individual

demographic and economic indicators account for a good portion of the difference.<sup>95</sup> These results show the importance of health insurance for improving access to care, but reinforce that variations in coverage do not account for all the differences in access and quality between racial and socioeconomic groups.

### **Provider Payment Rates**

Payment rates under different insurance plans influence which physicians and hospitals will accept which patients, and create incentives for how those patients are treated. Payment rates for Medicaid are significantly lower than for Medicare – in some cases Medicaid pays doctors nearly a third less than Medicare does for the same services, leading many physicians, hospitals, and nursing homes to refuse to accept Medicaid patients. Because institutional settings such as hospital outpatient clinics are paid at a higher rate for Medicaid than private physicians' offices, such settings may be the only option in a local region for Medicaid patients.<sup>97</sup> In recent years, Medicaid has been under increasing financial strain, with rising costs leading many states to enact more restrictions on benefits

and to institute more cost-sharing for Medicaid recipients,<sup>102</sup> compounding access challenges.

Lower payment rates often result in Medicaid and uninsured patients receiving care in different settings than privately insured or Medicare patients. While safety net providers such as community health centers often have excellent quality results and lower disparities than other care settings, they are often under-resourced and may have difficulty getting access to specialty care or necessary diagnostic tests and treatments.<sup>24</sup>

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### ***Linguistic and Cultural Competency***

Much of the emphasis on reducing disparities in health care has centered on improving the linguistic and cultural competency of clinicians and health systems. The goal of cultural competency is, "...to create a health care system and workforce that are capable of delivering the highest quality care to every patient regardless of race, ethnicity, culture, or language proficiency."<sup>103</sup> Such competency could aid in the reduction of health care disparities by improving access to care (for example, through interpreter services); increasing trust between patients and providers; increasing patient understanding of and agreement with care plans; improving physician ability to properly diagnose disease and develop a workable care plan aligned with patient values and goals; and helping patients feel more comfortable accessing the care system, knowing their needs will be reliably met.

The principal tool used to improve cultural competency has been training of providers and staff. One systematic review found strong evidence that cultural competency training for health professionals improves knowledge, good evidence that it improves clinician attitudes and skills and patient satisfaction, but insufficient or nonexistent evidence regarding the impact on patient adherence or health outcomes.<sup>104</sup> More information is needed to guide health systems on the use of such training programs.

Stronger evidence supports the association between linguistic access and patient satisfaction, access to care, communication, quality of care, and outcomes.<sup>105-107</sup> Linguistic access includes translation of written materials and signage in medical buildings and availability of qualified medical interpreters to aid clinician/patient communication. Over the past few years, efforts to use legislation and regulation to support both linguistic access and cultural competence in health systems have increased. The Culturally and Linguistically Appropriate Services (CLAS) Standards, developed by the U.S. Department of Health and Human Services Office of Minority Health (OMH) under congressional mandate and finalized in 2000, aim to address disparities by

increasing the responsiveness of health care providers to the individual needs of patients and consumers, especially those racial, ethnic, and linguistic groups that experience unequal access to care. Of the 14 standards, only those focusing on language access are required for all recipients of federal funds.<sup>108</sup>

At the state level, several laws or regulations intended to improve cultural and/or linguistic competency of clinicians and health systems have been implemented, including: California SB 853, mandating standards and requirements for providing health plan enrollees with access to language assistance in obtaining health care services;<sup>109</sup> California AB 1195, requiring most continuing medical education (CME) courses to include cultural and linguistic competency components;<sup>110</sup> and New Jersey S 144, requiring physician cultural competency training as a condition of licensure.<sup>111</sup> Evaluation of the impact of such regulations has yet to be conducted.

The notion that improved communication between patients and providers in the context of patients' cultures and values could improve diagnosis and management of illnesses has face validity. However, more evidence is needed regarding which cultural competency techniques are most effective at reducing health disparities, and how health systems should implement them to achieve these goals.<sup>112</sup>

### ***Representation of Racial and Ethnic Groups among Providers***

One opportunity cited as a means of increasing linguistic and cultural competency (and thus effectiveness) of the health care workforce is to increase the proportion of underrepresented clinicians in health systems and in medical education.<sup>113;114</sup> While African Americans, Hispanics, and Native Americans make up over 25% of the U.S. population, they represent only 9% of nurses, 6% of physicians, and 5% of dentists.<sup>114</sup> The primary strategy to increase numbers of minority clinicians is the use of "pipeline programs" that seek to build the pool of future doctors, nurses, and other clinicians.

Such programs often focus on support for minority students, including academic support, mentoring, education grants or scholarships, and loan repayment programs.<sup>115</sup> Further downstream, approaches within individual health systems focus on recruiting and retaining underrepresented clinicians and fully using their skills and expertise to improve competency of peers and the system.

Proponents of increased diversity in training and care delivery environments cite the potential for greater understanding of cultures, increased linguistic competence, better opportunities for building trust between provider and patient, and provision of role models in the caregiving fields.<sup>114</sup> The need for these improvements is based on evidence of racial differences in care experience and perceptions. One survey found that African Americans, Asians, and Hispanics are more likely than whites to experience difficulty communicating with their physicians and to feel disrespected when receiving health care services.<sup>116</sup> Some studies have found an association between patient/physician racial concordance and patient reports of greater participation in medical decisions<sup>117</sup> and higher levels of satisfaction.<sup>113;118-120</sup> However, little is known about the direct impact of racial concordance or workforce diversity on health care quality or health outcomes.

Some observers caution against relying too heavily on this strategy to reduce health care disparities for reasons including: uncertainty about the impact of racial concordance on physician/patient communication and patient health outcomes; the time lag between creating programs today and having increased numbers of underrepresented providers in the future; and the risk of potentially moving towards further segregation of care by race – black providers seeing black patients, white providers seeing white patients.<sup>121;122</sup> However, evidence that underrepresented minority providers are more likely to practice in underserved communities and in Medicaid<sup>99;113;114</sup> supports the need for increased numbers of underrepresented clinicians. Also, though the connection to health outcomes is not known, it is plausible that a health care workforce that reflects the

population it serves will be more in touch with the needs of that population, will embody greater knowledge of and sensitivity to unique attributes of different cultures, and will support better communication and understanding between the health care system and its consumers.

### ***Provider Skills in Communication and Shared Decision-Making***

Culturally competent care is similar in many ways to patient-centered care, where providers engage patients in communication about their health issues and potential care plans and utilize shared decision-making. Improving providers' skills in listening, history-taking and discussion of symptoms, providing information to people with varying levels of health literacy, and engaging in shared decision-making may help to alleviate some of the barriers to optimal care for non-white patients. While medical literature supports the association of physician/patient communication and patient centeredness with satisfaction, evidence is mixed regarding the association with patient health behaviors and outcomes.<sup>123-125</sup> Therefore, while improved communication between patients and providers is a goal across the health care system, it is unclear to what extent such improvement will impact health disparities.

### ***Provider Implicit or Explicit Bias or Use of Stereotypes***

The IOM's "Unequal Treatment" report analyzed in detail the potential role of provider bias or stereotyping in racial and ethnic disparities in health care,<sup>1</sup> relying on theory and relevant psychology research and analysis.<sup>126</sup> That research centered on three aspects of the physician/patient interaction that may impact health disparities: prejudice (physicians being less willing to interact with members of minority groups), clinical uncertainty (differential interpretation of symptoms from minority patients based on prior experiences or expectations), or stereotypes (reliance on race-based beliefs, which tend to be biased, when considering symptoms, diagnosis, or course of treatment). Using these constructs, the IOM examined how biases among

physicians and other care providers may result in differences in care decisions, and how stereotyping may impact clinicians' beliefs about and actions with their patients.<sup>1</sup> While it is not surprising that health care has not escaped the pervasive legacy of racism and discrimination in the U.S., additional research directly examining the influence of racism, prejudice, and stereotyping on health disparities is needed. Bias among health care providers is just one manifestation of the role that racism and discrimination play in health and health disparities more broadly.

### **Adherence to Known Care Standards**

Many racial and ethnic disparities in health care reflect differences in quality measures, including both processes (such as hemoglobin A1c testing for diabetics) and outcomes (such as hemoglobin A1c control).

The movement towards evidence-based medicine, where clinical practice guidelines and protocols are developed based on critical analysis and synthesis of medical literature and other data, holds promise for reducing racial variation on such quality measures. Identification and consistent implementation of care standards based on strong evidence of positive impact on health could theoretically help reduce disparities for those measures. For example, to address differences in rates of hemoglobin A1c testing among minority diabetics compared to whites, establishing a target rate and identifying tools to help achieve that goal (such as registries, clinician reminder systems, or patient reminder systems) could help establish similar levels of achievement of this care standard for all patients.

More evidence is needed to support this theory – a systematic review of controlled trials testing provider-based interventions found strong evidence supporting the use of tracking/reminder systems to improve health care quality among minority patients, but insufficient evidence on whether provider interventions could specifically reduce health disparities.<sup>127</sup> However, real-world observations of the impact of well-implemented evidence-based clinical

practice guidelines show the potential of these tools: after implementation of the Centers for Medicare and Medicaid Services (CMS) evidence-based guidelines for use of hemodialysis for end-stage renal disease, the most dramatic improvements were seen for black patients.<sup>128</sup> Despite the evidence of effectiveness of tracking and reminder systems to improve quality, and the potential for evidence-based clinical practice guidelines to reduce variation (thus reducing disparities), improvement in care processes does not automatically translate into improvement in outcomes.

*...improvement in care processes does not automatically translate into improvement in outcomes.*

### **Distribution of Technology**

It is one thing to identify care standards, and another to be able to support the implementation of those standards through technology, such as electronic medical records with decision-support capabilities and registries that track patients with certain chronic conditions. The promise of such technologies to improve quality of care has been demonstrated within the U.S. Veterans Affairs (VA) medical system, which uses robust electronic medical record systems, decision-support tools, and automated order entry tools that support real-time clinical interactions, facilitate measurement and reporting of quality indicators, and enable the use of performance-based financial incentives.<sup>129</sup> Since the early 1990s, when the system-wide reengineering to implement these and other improvement processes began, the VA system has significantly improved on all quality indicators tracked consistently and has outperformed Medicare on almost all similar indicators.<sup>130</sup>

The VA has also demonstrated better performance than usual care outside the VA: a landmark RAND study examining quality of care for people living in 12 communities found that study participants received about 55% of recommended care for chronic and acute conditions and disease prevention,<sup>27</sup> while a follow-up study found VA medical system participants received 67% of recommended care.<sup>131</sup> Presence of the types of information technology used by the VA

varies widely throughout the U.S. health care system, indicating an opportunity for delivery of more consistent, appropriate care and for potential reduction of disparities. Several studies of VA patients have demonstrated equal (if not better) outcomes for blacks compared to whites,<sup>132-135</sup> and while these results cannot be attributed to the system's use of information technology, they support the potential usefulness of such tools to reduce disparities. Clearly, the cost and implementation challenges of information technology are barriers, especially for care providers serving a disproportionate share of Medicaid or uninsured patients and for providers in solo or very small group practices.

Access to medical technology is also not consistently distributed among different types of care settings. Providers that disproportionately serve uninsured or Medicaid populations, such as public hospitals, community health centers, rural health providers, and other safety net providers, are more likely to face resource constraints that discourage or prevent use of expensive technological diagnostic or therapeutic interventions. Because of the overrepresentation of people of color in these populations, this technology gap is likely to contribute to racial disparities in care.

Even when insurance status is equal, use of technology varies. One study of Medicare beneficiaries found that blacks have significantly lower adjusted rates of several "high-tech" medical procedures than whites, and hospitals with inpatient populations that are more than 20% black are less likely to perform these procedures on both blacks and whites and have greater disparities between blacks and whites, pointing to geographic and hospital-level variation in care.<sup>136</sup> Such variations in access to or provision of technological interventions likely contribute to disparities in health outcomes, though because the ideal level of use of such technologies is unknown and some high-cost care is unnecessary, the exact impact on outcomes is unclear.

## Roles for Policy Actors

Ample evidence connects each of the four policy arenas to health and health disparities. Far less is known about potential solutions to the challenges in each arena, and consensus on the role of different actors to address those challenges is lacking. Multi-sectoral dialogue is needed to move towards greater consensus and action. To support such dialogue, this paper presents a starting point and framework for different policy actors to use when discussing their respective roles, summarized in Figure 2 (see page 24). This proposal of important policy actors and their relative roles in impacting each of the four policy arenas is not intended to be comprehensive – to contain scope, a number of actors specializing in education, employment, urban planning, transportation, and other relevant policy fields are not included. Those discussed here are included because of their current or potential level of influence on the four arenas.

For each group of actors, we put forth hypotheses of their potential magnitude of impact and note some sample activities they might pursue. For the sake of simplicity we include individual policy opportunities in the context of one of these four arenas, but fully acknowledge that some policies could influence more than one arena. These examples are not necessarily the highest impact or most feasible opportunities, and are not a comprehensive set of policy options. Rather, the hypotheses are intended to spur thinking and discussion about what groups are best positioned to take action in particular arenas, where opportunities for collaboration may exist, and to encourage actors to think beyond the status quo about their role in addressing health disparities.

The hypotheses here demonstrate that a broad variety of actors have roles to play in addressing each of the four arenas. For example, while health systems and providers will naturally and appropriately gravitate towards a focus on impacting their patients' personal management of health (Arena 3) and issues in health care financing and delivery (Arena 4), they still have important roles to play in impacting

socioeconomic circumstances (Arena 1) and the physical environment (Arena 2) in their roles as employers, educators, community members, and health leaders. Other types of actors have the potential for substantial impact in all four arenas, and could look for partners to help them achieve goals in each area. Organizations can use Figure 2 as a starting point in discussions about the unique role they can play in the effort to eliminate disparities in health and health care, and to strategize about potential opportunities for multi-sectoral collaboration to achieve common goals.

## Conclusion

The persistence of racial and ethnic disparities in health and health care is a continual reminder of how far this country still has to go to achieve equal opportunity for health and well-being. While progress has been made in some instances, disparities appear to be worsening in other areas or for specific subpopulations. This issue has attracted a substantial amount of attention in the medical and lay press, yet many opportunities remain to engage a broader national dialogue and a cohesive, integrated, interdisciplinary strategy for action.

This paper provides background to help inform discussions around strategies for moving forward. It seeks to address some of the key questions related to defining disparities, understanding the landscape of influences, and examining areas of opportunity for potential action by a variety of policy actors. Several themes emerge:

- The evolving dialogue on health disparities includes discussions of the roles of race, socioeconomic factors, geography, neighborhoods, and health care access and quality. While the relative “weight” of these factors is not well understood, it is clear that they are all vitally important, and that their intertwined nature necessitates attention to the whole, not just the individual parts.

- Because of the multifactorial nature of disparities, attention to any one of the individual policy arenas is necessary but insufficient. Long-term solutions demand action to address factors in all of these arenas.
- The potential policy actors who could act to impact these arenas represent a broad swath of organizations and individuals, many of whom are already committed and active in working to address disparities – but who may have greater opportunities to address arenas currently seen as peripheral or beyond their scope.
- Within the four policy arenas, a great many factors influence disparities in health and health care. Although this complexity presents challenges in that no one actor can control or impact all of these factors, it also creates opportunities for many different actors to contribute to solutions and necessitates collaborative approaches.

Continued progress in the elimination of racial and ethnic disparities in health and health care will require integrated, interdisciplinary action from the affected communities and from the huge variety of players whose policies and actions impact their health and well-being. The models and information presented here provide a base of information and a common framework for considering actions to address disparities. As potential policy actors examine their current or future strategies, consideration of the entire broad landscape of influences on disparities and of others who may be positioned to act in collaborative or complementary ways are essential to accomplish sustained, significant change.

Figure 2: Role of Potential Policy Actors in Addressing Disparities

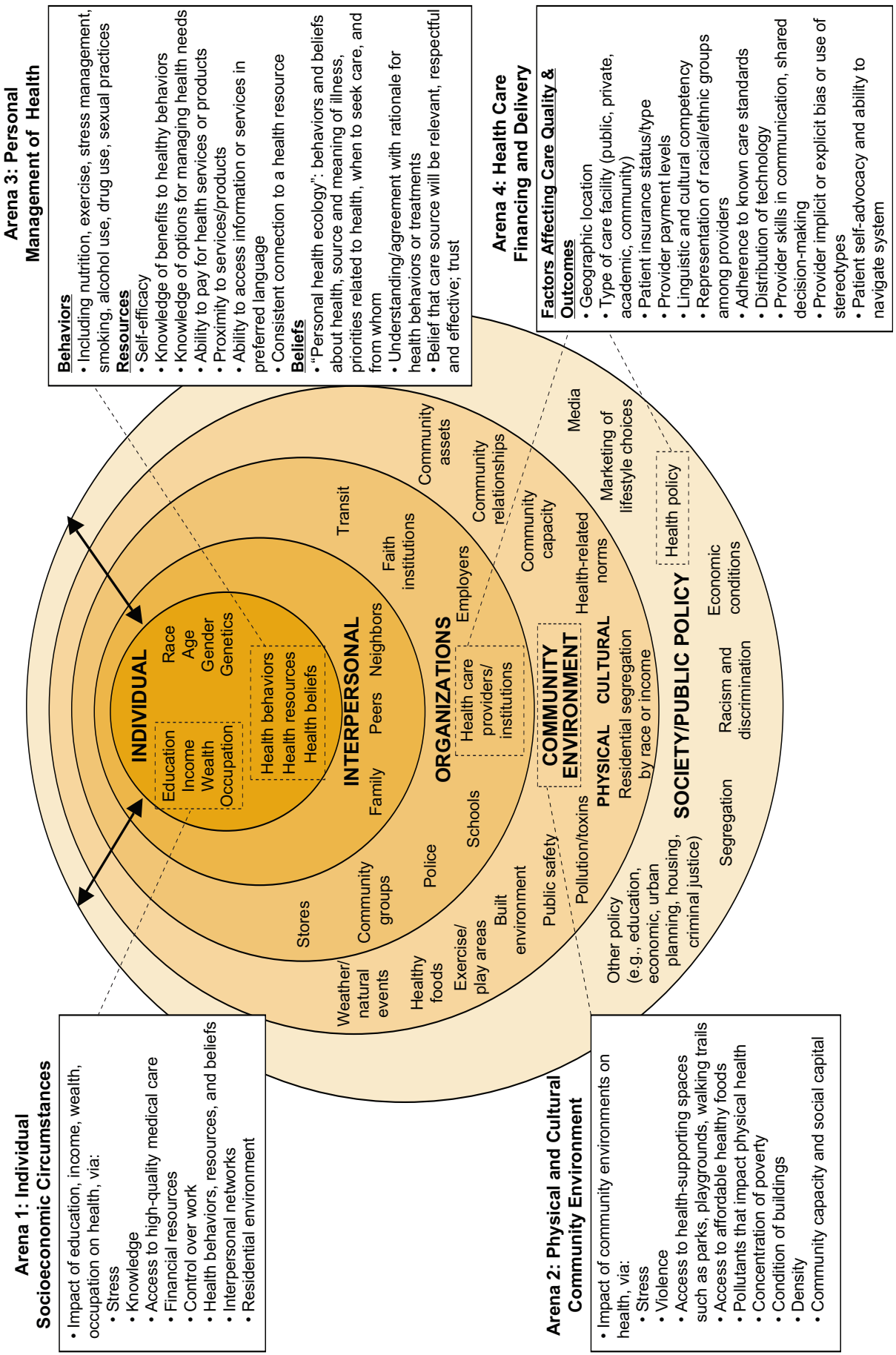
Role of Actors:	ARENA 1: Socioeconomic Circumstances		ARENA 2: Physical & Cultural Community Environment		ARENA 3: Personal Management of Health		ARENA 4: Health Care Financing & Delivery	
	Impact <sup>†</sup>	Examples:	Impact <sup>†</sup>	Examples:	Impact <sup>†</sup>	Examples:	Impact <sup>†</sup>	Examples:
<b>Community Supporters</b>	●	Community-based initiatives focused on school improvement, job training	●	Community capacity-building; health councils; improving access to healthy foods and spaces	●	Community education on how, why, where and when to use health services	●	Advocacy for access to high-quality health systems
<b>Consumers</b>	●	Pursuit of educational and employment opportunities and resources	●	Organization of local clean-up projects; neighborhood watch, neighborhood councils	●	Healthy behaviors; proactive identification of care resources	●	Self-advocacy re: navigating health system
<b>Employers</b>	●	Job training, employee development, tuition reimbursement	●	Worksite wellness programs	●	Incentives for preventive health activities; support for work/life balance and workplace safety	●	Incentives for collecting race and ethnicity data and assessing quality differences
<b>Health Care Purchasers</b>	●	Health care cost-sharing	●	Research and analysis on environmental determinants of health	●	Research and analysis on role of cultural differences in health beliefs and behaviors	●	Identification of gaps; efforts to improve cultural/linguistic competency; raising awareness
<b>Information/Resource Brokers</b>	●	Research and analysis of impact of SES-related initiatives on health; research on SES determinants	●	Public safety initiatives; housing development and urban planning policies	●	Medicaid, SCHIP, Community Health Center access; regulations on language access	●	Regulations/standards re: quality indicators, data collection; payment and financing for Medicaid, FQHCs
<b>Legislators/Regulators</b>	●	Wide range of interventions related to social insurance, school quality, employment	●	Evaluation of community footprint and environmental impact of facilities	●	Evaluation of organizations' efforts to provide care in underserved communities	●	Standards re: quality indicators, collection of race and ethnicity data
<b>Accreditors</b>	●	Evaluation of health care organizations' job-training programs	●	Community benefit programs supporting healthy living	●	Education on availability of services	●	Dues subsidies; coverage of screening and treatment options
<b>Medical Care Mediators</b>	●	Health care cost-sharing policies; charitable giving	●	Community-based initiatives focused on healthy living	●	Influencing individual health behaviors; community health worker programs	●	Decision-support systems; communications/cultural competency training; loan repayment programs
<b>Medical Care Providers</b>	●	Charity care programs; pediatric "prescriptions" to increase reading in children	●	Partnerships for improvement of local parks, playgrounds	●	Outreach/screening; education on managing variety of health-seeking behaviors	●	Communications/cultural competency training; incentives to work in underserved communities
<b>Medical Care Trainers</b>	●	Job training programs in medical fields; educational pipeline programs	●	Sponsorship of local improvement activities in underserved communities	●	Education on symptoms and care options; tools to support self-management and wellness	●	Inclusion of user-friendly race, ethnicity, and language data fields in EMRs; decision-support tools
<b>Technology Providers</b>	●	Development and dissemination of accessible educational support tools	●		●		●	

**Community Supporters:** Advocacy/Action Community Groups, Public Health Depts, Foundations; **Consumers:** Individuals and Families; **Employers/Health Care Purchasers:** For-Profit, Non-Profit, Government; **Information/Resource Brokers:** Foundations, Think Tanks, Researchers, Quality Groups, Community Groups; **Legislators/Regulators:** Local/State/Federal Government; **Accreditors:** Health Care Accrediting Organizations; **Medical Care Mediators:** Insurers (Public and Private); **Pharmaceutical and Device Manufacturers**

† = Potential Magnitude of Impact ● = Largest ● = Second largest ● = Third largest  
 \$ = regarding health-related resources

# Appendix

## Landscape of Influences on Health Disparities and Arenas for Policy Action (detailed)



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