COUNTERING THE PRODUCTION OF HEALTH INEQUITIES

An Emerging Systems Framework to Achieve an Equitable Culture of Health

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Core Team:
Rachel A. Davis, Sheila Savannah, Mariel Harding, Alyshia Macaysa, and Lisa Fujie Parks

Additional Contributing Staff:
Manal Aboelata, Rachel Bennet, Sana Chehimi, Larry Cohen, Larissa Estes, Will Haar, Dorit Leavitt, Leslie Mikkelsen, Bakeyah Nelson, Juliet Sims, Sandra Viera, Elva Yanez

Prevention Institute is a nonprofit, national center dedicated to improving community health and well-being by building momentum for effective primary prevention. Primary prevention means taking action to build resilience and to prevent problems before they occur. The Institute’s work is characterized by a strong commitment to community participation and promotion of equitable health outcomes among all social and economic groups. Since its founding in 1997, the organization has focused on community prevention, injury and violence prevention, health equity, healthy eating and active living, positive youth development, health system transformation and mental health and well-being.
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Dedication

This paper is dedicated to the community of Flint, Michigan and other communities across the U.S. that shoulder a burden of unfairness and diminished opportunities for health as a result of policies, practices, and procedures on the part of government and other institutions. Whether these actions are deliberate and intentional, inadvertent, or neglectful, individually and cumulatively they have contributed to unjust disparities in health and well-being.
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Executive Summary

As the Robert Wood Johnson Foundation (RWJF) developed its bold vision for a Culture of Health -- in which every person in the U.S. has the opportunity to achieve health and well-being -- staff and leadership recognized that, as a nation we cannot achieve a Culture of Health (COH) when there are inequities in health outcomes. This paper provides a framework for achieving an equitable Culture of Health.

It begins with an analysis of seven Determinants of Health (DOH) that shape health outcomes and health equity - Environment (Socio-Cultural Environment and Built/Physical Environment), Housing, Public Safety, Education, Employment, Income & Wealth, and Access to Quality Health Systems and Services. Of significance, it highlights the policies, practices and procedures related to each DOH that have inadvertently or by design contributed to inequities in health outcomes for people of color and people with low-incomes. In so doing, it identifies fourteen specific sectors that have played roles in producing health inequities. These very same sectors have invaluable roles to play in countering the production of inequities and producing equitable health outcomes. They are the key players in ten multi-sector systems that ‘set the course’ for achieving health equity. Designed to create the opportunity to achieve health and well-being in communities -- where people live, work, play and learn -- the multi-sector systems will be most impactful not only through action at the community level but also through supportive action at local/regional, state and federal levels, as well as by specific sectors. Finally, to employ rigor to achieving health equity, this paper describes a System of Health Equity, which among other things creates the mechanism for an intentional feedback loop, critical for systems change. RWJF can overlay the ten multi-sector systems and the System of Health Equity itself upon the COH Action Framework for a compass to guide an equitable COH. Further, the System of Health Equity constitutes a set of system and sector behavior changes that precede population health outcomes, though nevertheless critical to lasting systems change, in this case to achieve health equity.

By understanding how historical and current day policies, practices and procedures produce inequities in health outcomes, we can understand concretely how to begin to reverse or ameliorate the inequities and support communities in transforming to achieve an equitable Culture of Health. Accomplishing this will necessarily require systemic change -- a fundamental change in policies, processes, relationships, and power structures as well as deeply held values and norms -- and this paper provides a framework for this change.

Purpose and Audience

In recognizing that achieving health equity is integral to achieving a Culture of Health, RWJF launched an Achieving Health Equity (AHE) Team. The AHE Team funded Prevention Institute to conduct an analysis to inform its grant making goals and strategies. This paper details that analysis. The primary audience for this paper is the AHE Team. The secondary audience for this paper is RWJF as a whole. The analysis also has implications for a far broader audience, and subsequent versions of this paper and collateral products will be developed for and disseminated to those audiences.

Findings about the Determinants of Health and Achieving Health Equity

The analysis of the AHE team’s prioritized DOH has resulted in a number of findings that inform a direction for actions to achieve an equitable Culture of Health. The overarching findings are:

1. The AHE team’s prioritized DOH have well-documented connections to health and safety, illness and injury and inequities in health and well-being outcomes. Environment (Socio socio-cultural environment Socio-Cultural Environment and Built/Physical Environment), Housing, Public Safety, Education, Employment, Income & Wealth, and Access to Quality Health Systems and Services are all
strong determinants of health and well-being. Altering the way they play out in communities is supportive of achieving health equity.

2. **Health inequities have been produced.** Within each DOH, there are policies, practices and procedures -- some deliberate, some inadvertent, some historical, some current day -- that have contributed to health inequities across racial/ethnic and socio-economic lines. For a historical example: the GI Bill, although it was a race neutral policy – presumably written to honor and offer social advancement to those who served in WWII – contributed to residential segregation, concentrating poverty particularly among African Americans in America’s cities. For a current example: racial bias in renting housing units and zero tolerance policies in schools have played a role in creating a cradle to prison pipeline. For each DOH, the paper details sample policies, practices and procedures that have contributed to inequities in health outcomes. Each section also includes a diagram with gears representing the sample policies, practices and procedures. The gears are a metaphor for both the production of inequities and interaction between the policies, practices and procedures, exacerbating their impact. Here is one example:

*Built/Physical Environment: Sample Policies, Practices and Procedures that Produce Inequity (What & How)*

3. **The DOH are interrelated and interconnected.** It’s difficult to disentangle any one DOH from one or more others in regards to health equity, as they are connected through policies, practices, systems and sectors as well as in their impact on communities. For example, a lack of public safety inhibits economic development in communities, which impacts employment and income and wealth. Conversely, educational outcomes, income and wealth and employment are all associated with an increased or decreased risk of violence (public safety), as is the socio-cultural and physical/built environment. The diagram of gears represents that the DOH are interreconnected – they influence each other and are influenced by each other.

4. **Specific sectors are key actors within the DOH and in many cases, within multiple DOH.** Fourteen specific sectors -- a field, discipline, or area of expertise that is characterized by a combination of related activities and functions that are typically understood as distinct from those of others – are key actors
within the DOH. In many cases, sectors have played historical and/or current roles in the production of health inequities. All of the identified sectors have critical roles to play in achieving health equity. Cross-sector engagement and collaboration becomes an engine that generates new ways to catalyze and sustain change. This is well-aligned with Culture of Health, which emphasizes multi-sector collaboration to build health partnerships. The 14 sectors identified in this analysis are:

<table>
<thead>
<tr>
<th>Agriculture</th>
<th>Human/Social Services</th>
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<tbody>
<tr>
<td>Banking/Finance</td>
<td>Justice</td>
</tr>
<tr>
<td>Business/Industry</td>
<td>Labor</td>
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<tr>
<td>Economic Development</td>
<td>Land use &amp; Management</td>
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<tr>
<td>Education</td>
<td>Public Health</td>
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<tr>
<td>Healthcare</td>
<td>Transportation</td>
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<tr>
<td>Housing</td>
<td>Workforce Development</td>
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5. **There is more written about the problem of health inequities than the solutions for health equity.** The literature is abundant with data that documents inequities in health outcomes. However, there is less written about what to do about it, particularly about the complex interactions between DOH, sectors, policies and systems. The literature tends to emphasize programs, which are easier to evaluate than comprehensive strategies. Overall, because there is more written about the problem than solutions; we need to turn to practitioners and community for direction on solutions. This is consistent with the CDC’s Framework for Evidence: evidence includes best available research, contextual evidence and experiential evidence. Consistent with ‘rules’ laid out in Fostering Systems Change, the systems laid out in this paper ‘set the direction’ for achieving an equitable Culture of Health in the absence of a clear evidence base about the specific solutions. Rather, the analysis points to the need for systemic change, which goes far beyond what a specific program could accomplish.

6. **Residential segregation is the consequence of policies, practices and procedures across multiple DOH, such as redlining by housing lenders, unequal investment in schools and transportation, and judicial rulings supportive of segregation.** Economic and racial segregation is one of the most powerful forces shaping health in the U.S. This segregation is not inevitable; it has been established and maintained through government policy and investment and the practices of institutions and organizations. Perhaps because there is more data about segregated urban populations, the negative health impact of residential segregation is most commonly associated with African Americans. However, contributing factors and potential impacts are more far-reaching. The health impacts stem from lack of opportunity to health promoting conditions and exposure to hazardous conditions and are associated with concentrated disadvantage or economic segregation. Segregated communities are more likely to have limited economic opportunities, a lack of healthy options for food and physical activity, increased presence of environmental hazards, substandard housing, lower performing schools, higher rates of crime and incarceration, and higher costs for common goods and services (the so-called “poverty tax”). While residential segregation has improved overall (in that it has declined) since 1960, people of color are increasingly likely, relative to whites, to live in high-poverty communities. This does not negate the positive and protective aspects of people living together in cohesive communities, including, for example, new immigrants. However, when any group of people is living in conditions without opportunities for good health, such as concentrations of deep, multi-generational poverty, segregation is not conducive to health, especially over time. Addressing residential segregation -- segregation from opportunity, income, and power to make another choice -- are key to producing health equity.
7. A great deal of the production of health inequities is fueled by norms and shared values within sectors and institutions; bias, discrimination and institutional racism contribute to and exacerbate inequities in health. Organizational norms construct the lens through which policies become practices; workforces are trained and informal interpretations become decisions at the point of service. These cultural values also become urban myths that present additional barriers to seeking and receiving assistance. The strength of shared values among partnering organizations and sectors can accelerate the production of health inequity or health equity. Similar to the culture of discrimination that accelerated the practice of redlining across many sectors, an equitable COH can accelerate community transformation when it is shared across multiple sectors focused on reducing inequities in health and well-being outcomes.

8. There is a need for actionable solutions that will produce systemic change. The impact of inequitable policies and practices is felt -- among other places -- at the community level, resulting in conditions that are not conducive to health and well-being. The community is a place for actionable change. Further, looking at the roles and contributions of multiple sectors, which are already engaged in policies, practices and procedures every day at multiple levels, is a lever for actionable change.

9. There is a pathway to produce health equity. Within the production line to inequity, we can find lessons that can inform our work as we focus on systems and strategies to produce health equity. These and other lessons help us construct and expand a range of systems that can produce health equity by:
   - Interrupting or reversing the production of health inequity through policy and practice change;
   - Ameliorating the impacts through community level change, supported by regional, state, federal and sectoral action.
   - Accelerating and sustaining the production of health equity;
   - Introducing calibration points so that we measure progress in production of health equity at the local level; and
   - Changing norms and values to produce equitable opportunities for health and well-being.

Multi-sector Systems for Producing Health Equity

Multiple sectors have played roles in the production of inequity and that the production of inequities has become embedded within policies and practices to such an extent that it must be deliberately dismantled. Here it is proposed that this happens through the development of systems* that can produce health equity that will be felt and experienced at the community level. While the impact will be felt at the community level, it will necessarily take actions beyond the community level, including at local/regional, state, and federal levels as well as among key sectors.

Multi-sector system characteristics:

1) Each addresses multiple DOH.
2) Each spans multiple sectors such as education, housing, banking and finance, land use and planning and transportation.
3) The 10 are inter-related with each other.
4) All are focused on promoting change at the community level, informed by the analysis of how the DOH play out at the community level.
5) All are emerging strategies and elements of them are being implemented in communities and by sectors across the country.

* A system is a set of interrelated parts that interact and function together to produce a common outcome or product.
6) **All will have a greater impact on health equity when they are supported by a System of Health Equity.**

Multi-sector systems:

1. **Thriving Communities — Community Driven Solutions for Health Equity** A system to support community-driven solutions for health equity ensures that community members are engaged in the process of creating healthy communities.

2. **Health Equity By Design: Healthy, Equitable Land Use and Planning** Healthy Equitable Land Use and Planning is a system whereby the decisions, policies and practices of government, the private sector and community stakeholders ensure healthy, safe and resilient built environments (design, conditions and infrastructure).

3. **Active Transportation for Health and Safety** An active transportation system supports the ability to move safely and comfortably around one’s community without relying on vehicles, and to access essential places and resources such as schools, workplaces, healthy food markets, and parks. Active transportation includes modes of human powered transportation like walking, bicycling, and using a wheelchair.9

4. **Housing Choice to Build Opportunity** A safe and affordable housing system for inclusive communities ensures that the conditions within and surrounding houses are healthy, and that housing is accessible to people from diverse backgrounds and circumstances.

5. **Sustainable Food System** A food system influences the accessibility and affordability of healthy food in communities and the sustainability of the natural environment.

6. **Safe Communities through Preventing Violence** Safe Communities is a system in which government leadership, community members, public sectors and other stakeholders come together to improve community safety through planning, implementation, coordination, and measurement and evaluation of multi-sector efforts that span a continuum of prevention, intervention, enforcement and reentry efforts.

7. **Cradle to Community** This comprehensive system 1) fosters positive early childhood and youth development, 2) invigorates lifelong learning, 3) dismantles the cradle to prison pipeline, and 4) establishes restorative and inspiring school practices and strengthens continuity between learning and employment.

8. **Developing a Workforce for the 21st Century** Through the interplay of advocacy, training and education, and social and economic supports, this system ensures that local people are prepared for and connected to quality employment that enables working individuals and families to achieve financial stability.

9. **Economic Engines in Service of Communities** This system drives economic and job growth in areas that fuel the economy for people and communities that have been left behind.

10. **Community Centered Health System** A Community-Centered Health System marshals the resources and influence of healthcare delivery organizations and healthcare payers to work in partnership with governmental public health and community partners to maximize the prevention of illness and injury by focusing on the community factors that shape health outcomes.

**“P” is for Progress: Toward a System of Health Equity**

Across the multi-sector systems, the need for an overarching approach emerged: the need for a system to drive health equity. A System of Health Equity is a way of organizing and structuring relationships, innovation, learning, and advocacy for coherent and interrelated practices – within the foundation, government, private sector and community – to attain health equity across the population. This system provides a mechanism to employ rigor through intentional feedback loops and being intentional about measuring change, which promotes systems change.10
Essential Elements for a System of Health Equity:

1. **Purpose: Intentionality for Health Equity**
   a) **Laser focus on health equity:** Without explicit attention to improving health outcomes for communities with low-average household incomes and communities of color, the outcomes cannot be maximized. For each action – policy, practice, and procedure – these questions must be asked: Is this producing health equity? How will this achieve health equity? Will this counter the production of health inequities? It is also critical that each sector looks at its own historical role in producing inequities and how it can play a role in producing more equitable outcomes moving forward. A System of Health Equity can provide tools, checklists or discussion guides to prompt and support exploration of these questions. It makes explicit the notion of health equity in all policies, practices, procedures, systems and sectors. As multi-sector systems are developed (e.g. Cradle to Community), it is critical that a laser focus on health equity be applied to ensure that it is benefitting those who most need it and weighing opportunities to maximize outcome.
   b) **Intentionally addresses discrimination, structural racism and bias.** To reverse the production of inequities, it’s critical to examine how discrimination, structural racism and bias explicitly play out in policies and practices and within sectors and systems.
   c) **Acknowledges the systematic production of inequities by accounting for community trauma:** Addressing community trauma is an integral strategy for achieving health equity. Addressing community trauma includes acknowledging the legacy and impact of historical and current practices and policies that have produced inequities as a first step toward healing and moving forward with solutions.
   d) **Fosters connections between people, systems, issues and opportunities:** To maximize health equity outcomes, new connections become vital conduits for information, ideas, and emergent solutions. Paying attention to connections and interdependence is a critical component of systems change.\(^\text{11}\)

2. **People: Leadership and Engagement**
   a) **Shared vision and leadership:** A shared vision can be an overarching frame for multiple partners to rally around and can galvanize the imagination of a nation. Strong leadership can bring key partners and diverse elements of a growing movement together to advance a shared vision and promulgate the tools and standards needed to hold others accountable. For a System of Health Equity, it’s important to look at the specific leadership needs and roles of the health sector – healthcare and public health.
   b) **Community voice, participation and leadership:** A System of Health Equity moves from community as recipient to community at “the center of efforts” and it recognizes that health equity outcomes are not produced by formal institutions alone. Community engagement, participation and leadership represent key elements in a health equity system as voices of those traditionally under-represented in leadership and decision-making, including youth, become elevated as stewards of the system.
   c) **Multi-sector engagement:** The system of health equity fundamentally acknowledges the importance of multi-sector engagement and collaboration—a very specific form of fostering connections. The system of health equity will encourage and catalyze these multi-sector engagements through a variety of tools including reframing of issues, convening and exploring win-wins.
3. Practice: Methodology and Capacity

a) **Tools, approaches and methodologies:** Existing tools, approaches and methodologies can become the basis for funding proposals, training, technical assistance and capacity building and the subject for communication and making the case. Fostering development of new tools and promulgating effective methods will help the System of Health Equity remain vibrant while supporting practitioners.

b) **Training and capacity building:** Building organizational capacity at the local level is critical. Broadly, there is also a need for training and capacity building across systems and sectors to collaborate with each other, to advance comprehensive approaches, to actively engage in multi-sector systems to produce health equity and to apply a health equity lens.

4. Platform: Infrastructure to Support Success

a) **Communications/make the case:** Effective communication can help build and sustain health equity efforts. A communications strategy advances all of the other elements of a System of Health Equity and supports an equitable Culture of Health.

b) **Financing and funding equity:** Financing must be a key component of the system that will interrupt and reduce the ongoing production of inequity, ameliorate the impacts, and accelerate and sustain the production of health equity. Like other components, this component of the system must “think and operate at the edge of the box,” building in renewed and bold commitment to innovation and outcome to meet the need and demand, fund population health and health equity, and fulfill our nation’s potential.

c) **Metrics and measurement:** Establishing metrics not only underscores the importance of addressing health inequities, it directs the Foundation and the country to a set of priorities and actions that can and will make a difference in the health and well-being of those populations in the U.S. who are most at risk for poor health and safety outcomes. By prioritizing the development of a National Health Equity Index, the AHE team is taking important steps to monitor progress on achieving health equity.

C is for Change: Actions to Achieve Health Equity

Multiple organizations, sectors and leaders are in positions to counter the production of health inequity and produce health equity. Social justice and health equity work is not neutral — it is a values proposition that at times goes against the status quo and business as usual for fundamental Change. There is a growing appreciation of the importance of a health equity approach, but too often determinants are thought of on a broad national scale without adequate translation to being actionable – aimed at specific systems and to local as well as supporting national, state and sectoral action. Further, changes need to be accelerated – evolution is too slow; transformation is needed. The following strategic mix of actions can contribute to a synergistic or cumulative impact as efforts amplify and maintain a steady drum beat for intentional Change – a “C “ change – through the following actions: 1) Champion, 2) Coalesce, 3) Catalyze, 4) Cultivate, and 5) Connect.

1) **Champion an equitable Culture of Health.** In alignment with RWJF’s bold vision of a Culture of Health, organizations have the opportunity to champion an equitable Culture of Health. Organizational representatives and leaders can be ambassadors of an equitable Culture of Health, advancing health equity within their own organizations and among outside partners. This effort can counter the production of health inequities and reflect the principles and values that will advance health equity as well as provide a sense of direction toward
specific action steps. Values that are aligned with an equitable Culture of Health include fairness, inclusivity, interdependence, diversity, choice, access, sustainability, cultural competency, ownership, and empowerment.

2) Coalesce others in advancing an equitable Culture of Health including making the case for achieving health equity and convening and inspiring leaders to advance a transformational approach to health equity. The nation is in need of a new set of narratives on health equity: ones that forge common ground, build a collective voice, and join a wide range of stakeholders and sectors. Organizations, sectors, and leaders can build upon the tremendous energy and momentum generated by a new generation of equity and justice advocates by leveraging the influence of their organizations, sectors, and positions to shape and bolster policy efforts that create equity and lend support to grassroots efforts.

3) Catalyze a System of Health Equity and sustainable investments in health equity. Organizations, sectors and leaders can leverage their commitment and position to encourage broader, ongoing investment in achieving health equity. Beginning with identifying opportunities within their own organizations and bridging out to other partners, organizations have the opportunity to encourage investments in the identified systems, in broader evaluation, and in changes within sectors, for example. Emphasis could be placed on investments that achieve change at the community level since this is where inequities play out on a day to day basis and innovation occurs.

4) Cultivate capacity among leaders and practitioners to achieve health equity. As previously described, building capacity among leaders and practitioners within sectors and multi-sector systems is a critical element of interrupting or reversing the production of health inequity; ameliorating the impacts through community level strategies; accelerating and sustaining the production of health equity; and introducing calibration points to measure progress in the production of health equity at the local level.

5) Connect communities to tools, models, training and guidance to achieve health equity. Community efforts and change is integral to success, yet communities benefit from support, including learning from other efforts.
Introduction

As the Robert Wood Johnson Foundation (RWJF) developed its bold vision for a Culture of Health -- in which every person in the US has the opportunity to achieve health and well-being -- staff and leadership recognized that, as a nation we cannot achieve a Culture of Health (COH) when there are inequities in health outcomes. This paper provides a framework for achieving an equitable Culture of Health.

It begins with an analysis of seven Determinants of Health (DOH) that shape health outcomes and health equity. Of significance, it highlights the policies, practices and procedures related to each DOH that have inadvertently or by design contributed to inequities in health outcomes for people of color and people with low-incomes. In so doing, it identifies fourteen specific sectors that have played roles in producing health inequities. These very same sectors have invaluable roles to play in countering the production of inequities and producing equitable health outcomes. They are the key players in ten multi-sector systems that ‘set the course’ for achieving health equity. Designed to create the opportunity to achieve health and well-being in communities -- where people live, work, play and learn -- the multi-sector systems will be most impactful not only through action at the community level but also through supportive action at local/regional, state and federal levels, as well as by specific sectors. Finally, to employ rigor to achieving health equity, this paper describes a System of Health Equity, which among other things creates the mechanism for an intentional feedback loop, critical for systems change. RWJF can overlay the ten multi-sector systems and the System of Health Equity itself upon the COH Action Framework for a compass to guide an equitable COH. Further, the System of Health Equity constitutes a set of system and sector behavior changes that precede population health outcomes, though nevertheless critical to lasting systems change, in this case to achieve health equity.

By understanding how historical and current day policies, practices and procedures produce inequities in health outcomes, we can understand concretely how to begin to reverse or ameliorate the inequities and support communities in transforming to achieve an equitable Culture of Health. Accomplishing this will necessarily require systemic change -- a fundamental change in policies, processes, relationships, and power structures as well as deeply held values and norms -- and this paper provides a framework for this change.

Purpose and Audience

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The AHE Team set its goal “to eliminate health disparities by improving systems that affect our lives,” and a sub-goal of “improving the way that systems related to the determinants of health operate and work together.” The Team recognized that this “involves a shift in policies, practices and procedures of corporations, governmental agencies, nonprofits, and other organizations that influence the determinants of health. Addressing health inequities through this approach affects the ways these organizations work and the lenses through which they view and address problems. Catalyzing changes to these sectors is ultimately an investment that improves lives for the benefit of everyone.” This paper identifies key sectors and emerging multi-sector systems for achieving health equity as well as actions that the AHE Team and RWJF can take to achieve an equitable Culture of Health.
Methodology and Approach

The AHE team prioritized specific Determinants of Health (DOH) - Environment (Socio-Cultural Environment and Built/Physical Environment), Housing, Public Safety, Education, Employment, Income & Wealth, and Access to Quality Health Systems and Services - with the goal of improving the systems that impact inequities across this broad array of DOH. In recognition that the DOH are multifaceted and consist of a complex network of systems and sectors acting within them, they commissioned Prevention Institute to develop a more detailed understanding of which systems to target as well as where the opportunities exist within those systems for the greatest impact on achieving health equity.

In response, Prevention Institute engaged in a multi-pronged effort which included the following activities:

- **Reviewed relevant documents, reports and literature**: This effort began with reviewing reports and papers published by RWJF (e.g. COH documents and briefs by the Commission for a Healthier America) and by Prevention Institute (Measuring What Works to Achieve Health Equity: Metrics for the Determinants of Health commissioned by the AHE Team and a suite of materials associated with PI’s health equity work including THRIVE – Tool for Health and Resilience in Vulnerable Environments developed for the U.S. Office of Minority Health). This was followed by a scan of published academic and gray literature.

- **Conducted interviews**: We conducted 24 interviews with academics and practitioners. The interviews focused on strategies to produce equity and resulted in a plethora of suggested policies and practices.

- **Engaged in strategy and coordination discussions**: Through in-person meetings and monthly phone calls, Prevention Institute met with AHE team members, as well as the National Collaborative for Health Equity and their National Health Equity Index partners (Texas Health Institute and Virginia Commonwealth University Center on Society and Health) both to maximize alignment across efforts and to strategize about findings as they emerged, ensuring alignment with RWJF’s COH and that outcomes of this effort would be impactful on health equity.

- **Aligned with the Culture of Health Action Framework and RWJF Mission**: The COH Action Framework fully emerged after this project was conceptualized by the AHE team and was approved for funding. Early on, Prevention Institute embarked on the process of looking at how to best align this work with COH. In particular, Prevention Institute looked at Action Areas, Drivers and Metrics. Our overall approach has been to lift up Action Area 2: Fostering cross-sector collaboration to improve well-being as an engine to drive the remaining action areas and outcomes. This emerged out of the analysis about the role of sectors in producing health inequities, as well as their critical role in producing health equity. Finally, as part of alignment, we considered multi-sector systems that could be relevant to RWJF program areas outside of AHE. This is in recognition that in order to achieve a COH, health equity efforts must be embedded across the Foundation.

- **Conducted a Collaboration Multiplier Analysis**: Collaboration Multiplier is a Prevention Institute tool to 1) identify the roles and contributions of multiple sectors to improve health outcomes and their similarities and differences and 2) to understand how joint efforts across two or more sectors could enhance health outcomes. This allowed us to further explore COH Action Area 2: Fostering cross-sector collaboration to improve well-being as a way to get to concrete and actionable recommendations, which are described as multi-sector systems.

- **Developed definitions**: For clarification, we developed definitions for the prioritized DOH (see page 16) as well as other key language that the AHE team used in conceptualizing this project, and we described in our proposed approach to this project. We also developed definitions for each of the key sectors included in the analysis and other key concepts that emerged (see Appendix A).
• **Developed criteria**: We developed criteria to inform the development of solutions (i.e. multi-sector systems and a System of Health Equity) (see page 18).

• **Engaged in synthesis and analysis**: Though each piece of the methodology and approach is described separately here, synthesis and analysis were undertaken throughout.

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### Definitions
Below are definitions for major terms and concepts in this paper. Additional definitions, including for specific sectors, are included in Appendix A.

**Health Equity**: Every person, regardless of who they are – the color of their skin, their level of education, their gender or sexual identity, whether or not they have a disability, the job that they have, or the neighborhood that they live in – has an equal opportunity to achieve optimal health. The concept of health equity focuses attention on the distribution of resources and other processes that drive a particular kind of health inequality—that is, a systematic inequality in health (or in its social determinants) between more and less advantaged social groups, in other words, a health inequality that is unjust or unfair.

**Health Inequity**: The ‘differences in health which are not only unnecessary and avoidable but, in addition, are considered unfair and unjust.’ Thus, equity and inequity are based on core values of fairness. The term ‘inequity’ can be used when the referenced differences in health outcomes have been produced by historic and systemic social injustices, or the unintended or indirect consequences of social policies. Health inequity is related both to a legacy of overt discriminatory actions on the part of government and the larger society, as well as to present day practices and policies of public and private institutions that continue to perpetuate a system of diminished opportunity for certain populations.

**Health Disparity**: The differences in the incidence, prevalence, mortality, and burden of diseases and other adverse health conditions that exist among specific population groups in the United States.

**Sector**: A field, discipline, or area of expertise that is characterized by a combination of related activities and functions that are typically understood as distinct from those of others.

**System**: A set of interrelated parts that interact and function together to produce a common outcome or product.

**System of Health Equity**: A way of organizing and structuring relationships, innovation, learning, and advocacy for coherent and interrelated practices – within the foundation, government, private sector and community – to attain health equity across the population.

**Systemic Change**: A fundamental change in policies, processes, relationships, and power structures as well as deeply held values and norms.

The following list provides definitions for the AHE Team’s prioritized Determinants of Health (DOH)

1. **Environment**
   - **Socio-Cultural Environment**: This environment, sometimes referred to as social capital, reflects the people within a community, the interactions between them, and norms and culture. It also includes social networks & trust, participation & willingness to act for the common good.
   - **Built/Physical Environment**: This environment reflects the place, including the human-made physical components, design, permitted use of space and the natural environment. It includes, for example, transportation/getting around, what’s sold and how it’s promoted, parks and open
space, look and feel, air/water/soil, and arts and cultural expression.

2. **Housing:** The availability or lack of availability of high-quality, safe and affordable housing that is accessible for residents with mixed income levels. Housing also refers to the density within a housing unit and within a geographic area, as well as the overall level of segregation/diversity in an area based on racial/ethnic and/or socioeconomic status. Housing impacts health because of the physical conditions within homes, the conditions in the neighborhoods surrounding homes, and housing affordability, which affects the overall ability of families to make healthy choices.

3. **Public Safety:** Refers to the safety and protection of the general public. Here it is characterized by the absence of violence in public settings. Violence is the intentional use of physical force or power, threatened or actual, against oneself, another person, or against a group or community that either results in or has a high likelihood of resulting in injury, death, psychological or emotional harm, maldevelopment or deprivation and trauma from actual and/or threatened, witnessed and/or experienced violence.

4. **Education:** Access or lack of access to high quality, learning opportunities and literacy development for all ages that effectively serves all learners. Education is a process and a product: as a process, education occurs at home, in school and in the community. As a product, an education is the sum of knowledge, skills, and capacities (i.e. intellectual, socio-emotional, physical, productive and interactive) acquired through formal and experiential learning. Educational attainment is a dynamic, ever-evolving array of knowledge, skills, and capacities. Education can influence health in many ways. Educational attainment can influence health knowledge and behaviors, employment and income, and social and psychological factors, such as sense of control, social standing and social networks.

5. **Employment:** Level or absence of adequate participation in a job and/or workforce, including occupation, unemployment, underemployment. Work influences health not only by exposing employees to physical environments, but also by providing a setting where healthy activities and behaviors can be promoted. The features of a worksite, the nature of the work, and how it is organized can impact worker mental and physical health. Many Americans also obtain health insurance through their workplace, another potential impact on health and well-being. Health also affects one’s ability to maintain stable employment. For most working adults, employment is the main source of income, thus providing access to homes, neighborhoods, or other services that promote health.

6. **Income and Wealth:** Income is the amount of money earned in a single year from employment, government assistance, retirement and pension payments, and interest or dividends from investments or other assets. Income can fluctuate greatly from year to year, depending on life stage and employment status. Wealth, or economic assets accumulated over time, is calculated by subtracting outstanding debts and liabilities from the cash value of currently owned assets—such as houses, land, cars, savings accounts, pension plans, stocks and other financial investments, and businesses. Wealth measured at a single time period may provide a more complete picture of a person’s economic resources. Access to financial resources, be it income or wealth, impacts health by safeguarding individuals against large medical bills while also making available more preventative health measures such as access to healthy neighborhoods, homes, land uses, and parks.

7. **Access to Quality Health Systems and Services:** Access to effective, affordable, culturally and linguistically appropriate and respectful preventative care, chronic disease management, emergency services, mental health services, and dental care and the promotion of better social and community services and community conditions that promote health over the lifespan including population health outcomes. It also refers to a paradigm shift that reflects health care over sick care and promotes prevention.
Criteria for inclusion of systems and actions

**Account for what’s contributing to inequities, including:**
- Understand and account for the *historical forces* that have left a legacy of racism and segregation, as well as current policies, practices and procedures that contribute to inequities.
- Acknowledge the *cumulative impact of stressful experiences and environments*. For some families, poverty lasts a lifetime and even crosses generations, leaving its family members with few opportunities to make healthful decisions. Further, continued exposure to racism and discrimination may in and of itself exert a great toll on both physical and mental health.
- Recognize the *role of privilege* in contributing to disparities in health outcomes and acknowledge that policies have afforded privilege to some groups at the expense of others.

**Be actionable and mutable by**
- Focusing on changing community environments to alter the ways that DOH play out at the community level in a way that is detrimental to improved population health, well-being and equity.
- Building on the *strengths and assets* of communities, recognizing that communities are resilient and have a strong history of making change.
- Changing policies, practices and procedures to significantly address the production of health inequity/equity.
- Identifying appropriate roles and contributions for specific sectors in the production of health equity.
- Identifying appropriate roles and contributions for RWJF and RWJF’s AHE team.

**Emphasize a comprehensive approach to address the complexity of health inequity and in order to**
- Impact multiple DOH for a population impact and reinforce understanding that health inequities are interdependent and mutually reinforcing across society.
- Work across multiple sectors (not just one or two).
- Address multiple kinds of disparities, primarily focusing on racial/ethnic and socio-economic differences, given the U.S.’s changing demographics and growing wealth divide which are predictive of increasing health inequities in the absence of systemic change.
- Consider implications across the lifespan, recognizing that needs and solutions vary from birth, through childhood, adolescence young adulthood, middle age, and older age and that different age groups experience different health disparities.
- Emphasize the need for systemic change through changes in in policies, processes, relationships, and power structures as well as deeply held values and norms rather than emphasizing individual programs.

**Align with RWJF’s AHE Team and COH priorities and investments including:**
- Reflect the AHE Team’s priority DOH.
- Advance the COH Action Framework and 4 Action Areas: 1) Make health a shared value; 2) Foster cross-sector collaboration to improve well-being; 3) Create healthier, more equitable communities; and 4) Strengthen integration of health services and systems.
- Align with RWJF’s existing program areas, leveraging RWJF investments.
Beyond Business as Usual: Achieving an Equitable Culture of Health

*Building a Culture of Health requires action within and across sectors, because progress in one area will advance progress in another. But what areas of action should Americans work toward? How should our actions connect to one another? How can we find starting points that speak to the many different actors within communities?*

-From Vision to Action: A Framework and Measures to Mobilize a Culture of Health (p. 14)

With the goal of achieving health equity and an equitable COH, this paper provides direction in answering key questions: What areas of action should Americans work toward? How should our actions connect to one another? How can we find starting points that speak to the many different actors within communities? In this section, the paper’s emerging systems are mapped onto RWJF’s COH Action Framework. The COH Action Framework lays out a bold vision for the U.S. It emphasizes 4 Action Areas (see Figure 1). These same Action Areas are essential for achieving health equity.

**Figure 1: RWJF Culture of Health Action Framework**
The ten multi-sector systems and fourteen sectors that emerged in this analysis (and are described in more detail in this paper) guide action for achieving health equity. In Figure 2 they are mapped onto the COH Action Framework.

**Figure 2: Multi-sector Systems and Key SectorsMapped onto the COH Action Framework**
As a health leader in the U.S., RWJF has the opportunity to champion an equitable Culture of Health, leveraging investments and engaging sector and systems leaders to get beyond business as usual to achieve health equity. Achieving health equity will require an unwavering focus on health equity and an equitable COH. The System of Health Equity described in this paper provides a roadmap for that focus. In Figure 3, four essential elements of the System of Health Equity are added to the emerging systems framework for an equitable COH.

**Figure 3: Emerging Systems Framework for an Equitable COH**

![Emerging Systems Framework for an Equitable COH](image)
The Determinants of Health and the Production of Health Inequities

Health inequity is related both to a legacy of overt discriminatory actions on the part of government and the larger society, as well as to present day practices and policies of public and private institutions that continue to perpetuate a system of diminished opportunity for certain populations. Poverty, racism, and lack of educational and economic opportunities are among the fundamental determinants of poor health, lack of safety, and health inequities, contributing to chronic stress and building upon one another to create a weathering effect, whereby health greatly reflects cumulative experience rather than chronological age.

-A Time of Opportunity: Local Solutions to Reduce Inequities in Health and Safety
Commissioned by the Institute of Medicine’s Roundtable on Health Disparities

This section provides an overview of sample policies, practices and procedures within each DOH that have contributed to the production of health inequities across racial/ethnic and socioeconomic lines. Appendix B in this paper also describes the relationship between each prioritized DOH and 1) health and illness and 2) health inequity/equity. The analysis emphasizes impacts at the community-level, which has implications for solutions that can promote population health.

The public and private policies, practices and procedures selected for analysis and inclusion in diagrams represent examples with documented impact of differential outcomes across socioeconomic status and racial and ethnic groups. Because there has been an imbalance of research on health inequities versus opportunities for building health equity, the following section is to formulate an understanding of the problem that may not have been considered in a way that extracts opportunities for population health, well-being and equity. At the end of this section is a section which considers race/ethnicity as a social construction and limitations of the data in regards to communities of color and communities with low-average household incomes and the production of health inequities (see page 36-37).

The Production of Health Inequities by Determinant of Health

Socio-Cultural Environment

America gave the world the notion of the melting pot - an alchemical cooking device wherein diverse ethnic and religious groups voluntarily mix together, producing a new, American identity. And while critics may argue that the melting pot is a national myth, it has tenaciously informed America’s collective imagination.

- Ivan Krastev

Some public and private policies, practices, and procedures served to undermine the cultural heritage and autonomy of communities of color. The “doctrine of discovery” guided European colonization and led to the serial displacement of indigenous people; forcibly removing them from historic homelands and disrupting the socio-cultural environment. Federal “allotment” practices, or the designation of land to individual American Indians rather than recognition of land collectively owned by tribal government from the late 1800’s through the 1930’s, not only impacted geographic land bases, but disrupted communitarian traditions.30 Government- and church-run boarding schools, in the late nineteenth century, removed American Indian children from their families and forbid them from expressing their culture or speaking their language.31 Such cultural repression, which has also been experienced by immigrant people undermines and undervalues cultural identity. The imprisonment of over 125,000 Japanese Americans (almost two-thirds U.S. born) by the U.S. military in
**internment** camps during WWII\(^{32}\) – rationalized by a fear that owning properties and shops - made people suspicious of trying to blend in while having loyalty to Japan.

Some policies and or practices create barriers to voting and undermine social networks and cohesion. Before the civil rights act of 1964, literacy tests, *Jim Crow laws*, *poll taxes*, and threats of violence were used to prevent people of color from voting in the Southern U.S. Current *voter ID laws*, which have been passed in 36 states\(^{33}\) affect the ability of Americans to vote, particularly African Americans, students, the elderly, and people with disabilities.\(^{34}\) Drug policy and harsh sentencing laws have contributed to a cycle of mass incarceration, breaking apart families, undermining individual relationships, and destabilizing significant portions of communities. Further, people with felony convictions almost always lose the right to vote. *Racial profiling* is in itself a major source of distrust between residents and authorities and serves to undermine civic trust.\(^{35}\) U.S. Immigration policies that separate family members can decrease trust between residents and authorities.\(^{36}\) This is especially the case when profiling based on race, ethnicity, religion or dress is concerned.\(^{37}\) *Eligibility requirements* for Aid to Families with Dependent Children (AFDC) separated families, as two-parent households were not eligible prior to 1990 in 22 states.\(^{38}\) The public housing practice of denying section 8 housing to people with convictions also forced families to choose between being together and receiving benefits for which they were eligible. At a community level, predatory lending contributed to a disproportionate foreclosure rate in low-income communities, thereby reducing stability in these neighborhoods, a critical component of social cohesion and collective efficacy. Policies for *new highways and freeways* that bisected communities effectively destroyed social connections and networks in communities.\(^{39}\)

*Sample community impacts that contribute to poor health and lack of safety*: weak social networks and collective efficacy; separated families, isolated families; low civic participation and disenfranchised potential voters; reduced trust and confidence in the civic system and government institutions; loss of cultural identity and traditions; and harmful norms.

*Sample Policies, Practices and Procedures that Produce Inequity (What & How)*

<table>
<thead>
<tr>
<th>Key sectors (Who)</th>
<th>Racial profiling</th>
<th>Benefit eligibility requirements</th>
<th>Poll Tax</th>
<th>Predatory Lending</th>
<th>Cultural repression</th>
<th>Voter ID</th>
<th>Highways Bisect neighborhoods</th>
<th>Federal land allotments</th>
</tr>
</thead>
</table>

*Increased Inequity*
**Built/Physical Environment**

*Man did not weave the web of life; he is merely a strand in it. Whatever he does to the web, he does to himself.*

- Chief Seattle

As a result of multiple overlapping and interacting policies and practices that govern the built and physical environment, some neighborhoods and communities in the U.S. have physical conditions that promote healthy living while others do not.

Many of the circumstances in communities of color today are the result of historical land use policies and practices that barred people of color from being able to live, work or spend time in certain neighborhoods. This practice, also known as segregation, was codified in the 1896 ruling of the Supreme Court *Plessy v. Ferguson*, a case that upheld states’ laws requiring “separate but equal” public facilities, creating racially separate spaces. Following *Plessy v. Ferguson*, “Jim Crow” laws further advanced the practice of prohibiting African Americans from existing in the same public spaces as whites. In the Jim Crow South, there were segregated park systems with different parks for whites and blacks. Parks designated for people of color were generally smaller, received far less funding, and had fewer facilities.

More recent policies worked to deteriorate the built environment in these segregated communities of color. Small Business Administration practices in the 1980’s encouraged liquor store ownership among mostly entrepreneurs of color because minimal capital was required for business startup. This fueled the density of alcohol outlets in communities of color and communities with low-average household incomes. Similar confluences of government policies and business practices led to the over concentration of pay-day loan businesses, as well as fast and unhealthy food outlets in communities of color and communities with low-average household incomes. In the case of retail food, government policies incentivizing movement from the urban core resulted in supermarkets and grocery stores migrating to the suburbs alongside other businesses fleeing central cities, leaving a void for unhealthful food outlets to fill. The cost and availability of land in dense urban areas also contributed to the migration of businesses and loss of jobs and tax revenues, as well as business decisions about the siting of grocery stores and supermarkets that are based on community demographics. Limited availability of loans for local residents to open businesses that sell and promote healthy food options has resulted in limited economic opportunities for residents while also allowing chain restaurants and stores to fill the gap with less healthy or unhealthful products. Commercial marketing and targeted product availability by tobacco, alcohol, fast-food and other unhealthy food companies creates a cultural environment that reinforces alcohol consumption and tobacco use and unhealthy eating behaviors, which become part of intergenerational norms.

Land use practices and zoning rules that categorized white neighborhoods as residential and communities of color — comprised mostly of African Americans and/or Latinos — as commercial, industrial or mixed-use have also contributed to inequities in health. Decades of land use decisions and de facto segregation, coupled with a complex system of weak environmental laws and regulations, poor enforcement, and fragmented authority have led to the pervasive overconcentration of environmentally hazardous land uses and exposure in low-income, African American and Latino communities throughout the U.S. Economic Enterprise Zones serve to concentrate industry, often with public subsidies, in low income communities and in communities of color.

As racial covenants were overturned in the 40s and 50s and white Americans moved to the suburbs, public and private divestment from the urban core toward the second-half of the 20th century was mirrored by
increased investment in and subsidization of suburban community development. Investment in urban parks decreased and the highways that were built as part of urban renewal to connect suburbanites to city resources cut through many remaining urban parks and neighborhoods, dividing families and neighborhoods, and undermining locally owned business. These highways fragmented many historic mixed-income, African American and Latino communities, reorganized the urban landscape, diminished affordable housing opportunities and displaced thousands of residents and businesses from their homes. In response to court ordered desegregation, many municipalities closed down or privatized public recreation facilities rather than comply. Desegregation in the 1960s coincided with deterioration of recreational facilities, the criminalization of urban open space and creation of expensive amusement or theme parks that excluded poor non-whites by virtue of their expense and distance from the urban core.

Historically, transportation policies have favored investments in roads and highways over public transportation and pedestrian/bicycle infrastructure. The Federal Aid Highway Act (1956) fueled millions of federal dollars toward developing our current transportation system. While zoning also contributed to American dependence on motor-vehicle travel by creating greater distances between residential, commercial and industrial uses, this massive investment in roads and highways cemented the U.S.’s reliance to automotive travel, severed physical connections between neighborhoods – perpetuating residential segregation and dramatically reduced walking and biking as a viable means of utilitarian transportation in many communities. Local transportation plans and finance measures have also favored roads and highways over multimodal and active transportation. Compounding this, automobile manufacturers purchased rail systems and dismantled them.

American Indians and Alaska Natives (AI/AN) have experienced a unique set of policies and practices. In the 1800s, AI/AN were displaced from their historic and sacred lands, and forced to reside on government-controlled reservations. Additionally, the General Allotment Act of 1887 (Dawes Act) resulted in fragmented ownership of Indian land. As a result, one piece of land may have hundreds of owners and consequently, the ability for owners to make use of the land for agriculture or business development is limited.

Sample community impacts that contribute to poor health and lack of safety: Residents in densely populated urban areas are underrepresented in transportation planning because they have the same say as less populated suburban areas; socially disconnected neighborhoods; disruption of social networks. Concentrated pollution and worse air quality; fewer parks and open space; extractive industries (gambling, recycling) cited in communities of color and communities with low-average household incomes; food deserts and swamps; high alcohol outlet density; disproportionately larger numbers of tobacco outlets, liquor stores, pawn shops, payday lenders and check-cashing establishments; increased alcohol and tobacco sales. Concentration of low income communities and in communities of color in neighborhoods with poor job opportunities; limited access to jobs that are found in suburban areas; unequal investment in schools due to school funding formulas based on property taxes; movement of manufacturing jobs from the cities to suburbs. Residential segregation; concentrated poverty and disadvantage; displacement.
Countering the Production of Inequities to Achieve an Equitable Culture of Health

Sample Policies, Practices and Procedures that Produce Inequity (What & How)


Housing

The ache for home lives in all of us, the safe place where we can go as we are and not be questioned.

-Maya Angelou

Housing covenants, neighborhood deed restrictions, the GI bill, redlining maps, exclusionary zoning and public housing all served to concentrate people with lower incomes in areas with lower quality housing stock. Housing covenants and deed restrictions were legally binding documents that prohibited the sale of properties in white neighborhoods to people of color, codifying which people could live in which neighborhood by race. In Alameda County, California, for example, housing covenants forbid people of color from living in specific places in the county, unless they were employed in domestic jobs in white areas and living with those families. Housing covenants and deed restrictions began first as private agreements between neighbors but then became explicit public policy after the U.S. Supreme Court validated their use in 1926. The Servicemen’s Readjustment Act of 1944, more commonly known as the GI Bill, gave white veterans access to credit in high-opportunity neighborhoods that would create the suburbs, while restricting veterans of color to living in the neighborhoods labeled “declining” on Federal Housing Administration (FHA) redlining maps. These maps indicated to lenders the neighborhoods in which to issue mortgages and excluded neighborhoods with substantial numbers of people of color – typically, African Americans and Latinos. Meanwhile, the FHA guaranteed loans to developers of new suburban neighborhoods, so long as they didn’t sell any homes in the new subdivisions to African Americans. The FHA even provided model language for housing covenants for these subsidized suburban developments. Lastly, exclusionary zoning practices that dictated minimum lot sizes and housing types, served to people of color and people with low-average household incomes from certain neighborhoods and to preserve the property values of predominantly wealthy communities. While the federal government was funding the development of the suburbs, segregated public housing was being constructed for mostly African American residents locked out of moving to the suburbs. To this day, public housing units are generally found in areas of disadvantage. First devised as part of the New Deal in 1937, public housing provided explicitly segregated housing: units could be inhabited only by people of the same race in which the neighborhood was located, ensuring that public housing was built in already segregated communities. Equated with the impact of 1960s housing projects built in inner city neighborhoods which disrupted social network, cluster housing was introduced on American Indian lands in the 1960s by the U.S. Department of Housing and Urban Development (HUD) as a means to provide “modern housing and utilities” in a cost-effective manner to reservations across the country. This corresponded with a significant increase in drug and crime problems in tribal communities.
Historically, in response to suburban sprawl and “white flight” during the mid-twentieth century, municipal governments across the U.S. evoked the Housing Act of 1949 to set in motion the process of urban renewal. This act sanctioned the taking of land in urban areas deemed “blighted,” under the guise of eminent domain. The land was then cleared and sold at reduced prices to developers for other uses, frequently low income housing and industrial purposes. It is estimated that of the one million people displaced in 993 American cities, 75% of those displaced were people of color.

Market rates threaten housing affordability for many people with lower incomes. Both homeownership and rental is affected by housing affordability. During the housing market crash, communities of color – who were disproportionately targeted for and granted subprime loans – lost their homes to foreclosures at twice the rate of whites. A 2013 report on rental market recovery identified affordability pressures due to increasing demand in the rental market and declining incomes for renters with low-incomes. Longtime residents can be priced out of their homes and neighborhoods by increasing market rates, leading to displacement. Gentrification, a process of increasing wealth, education, and changing demographics in a neighborhood that can be caused by public or private investment in historically divested communities, is a central cause of the increase in housing costs. Such displacement is especially common in the absence of: tenant protections, large and stable subsidized housing stock, strong community organizing, and restrictive zoning. Compounding the challenge of affordable housing, more people are renting because wages are stagnant and the housing bubble both added previous owners to the renting pool and tightened mortgage requirements. More people renting means more people with higher incomes are renting and they are living in apartments that lower income people might otherwise have. New housing stock is rarely affordable to low income people and low income housing is vulnerable to demolition.

Families involved with the criminal justice system face additional barriers to residential stability as for individuals with felony convictions or outstanding warrants, securing consistent housing can be challenging. The local practice of applying Section 8 restrictions to bar people with a felony conviction on their record have shaped family structure and contributed to an increase in single parent, female-headed households. These restrictions have led many families to fear losing their housing if they welcome loved ones back from prison upon their reentry. For people with outstanding warrants, even for overdue fines, staying in one place consistently puts them at risk for arrest and for manipulation by those that know their status such as predatory landlords who market specifically to individuals who would not qualify for habitable market rate housing.

Sample community impacts that contribute to poor health and lack of safety: The impact of these policies and practices at the community level has included the creation of racial and economic residential segregation. Economic concentration, or the concentration of poverty, means that there are fewer resources to maintain infrastructure or fund public services, resulting in deteriorating communities, empty or abandoned buildings, and underfunded schools. When displacement occurs, these longtime residents and communities do not reap the benefits of improved community conditions and are subjected to housing instability. Gentrification creates areas of concentrated advantage and disadvantage. When people with low credit scores, longer-term residents, or residents without mortgages move out of gentrifying neighborhoods they are more likely to moving to lower-income neighborhoods and neighborhoods with lower quality-of-life indicators and this may be more likely in areas experiencing intense gentrification. Additional impacts include a lack of affordable, quality housing and instability and displacement and the breakdown of social networks.
**Public Safety**

*Where there is darkness, crimes will be committed. The guilty one is not merely he who commits the crime but he who caused the darkness.*

-Victor Hugo

A range of practices and policies have contributed to the reality that some communities are safer than others. Approaches, which have historically been dominated by criminal justice and law enforcement approaches, have not addressed the underlying conditions that increase the likelihood of violence. For example, **financing and zoning that allows for a high density of alcohol outlets**, proliferation of weapons, concentrated poverty, a lack of investment in some communities including a **disinvestment in physical infrastructure**, and **failing schools** have contributed to conditions that give rise to violence and a lack of public safety. **Zero tolerance** policies in schools have resulted in differential suspension and expulsion for students of color, contributing to a school to prison pipeline. A historical reliance on **crime suppression** strategies, coupled with **differential sentencing**, **minimum sentencing** and **criminalization of mental illness and substance abuse** have contributed to a cycle of mass incarceration. The U.S. has invested large amounts of money in building and maintaining prisons and very **little investment in the prevention of violence** and promotion of safety, including promoting resilience factors which are protective against violence despite the evidence base showing that violence is preventable. Further, whatever the initial reason for detention, prisons can serve as a training ground for violence and having been convicted reduces opportunities, such as for employment, post-release, both of which may contribute to a cycle of violence. Policies that have contributed to **concentrated disadvantage** also influence public safety. People who live in neighborhoods of concentrated disadvantage are more likely to experience violence and to be the victims of violence.  

**Sample community impacts that contribute to poor health and lack of safety**: The impact of these policies and practices at the community level has been devastating and reinforced a cycle of violence as risk factors for violence have consequently increased. Social networks and trust have been broken or interrupted, for example, as a disproportionate number of men of color have been incarcerated. These same communities are also deteriorated, reinforcing a perception of a lack of safety and not being attractive to potential investors and businesses. Further, these communities, in turn, have fewer resources to support quality schools and
education, also contributing to a continuing cycle of a lack of safety. The policies and practices have not only contributed to residential segregation but also reinforce it.

Sample Policies, Practices and Procedures that Produce Inequity (What & How)


**Education**

> You are never strong enough that you don’t need help.

- César Chávez

The U.S. education financing system, largely linked to property taxes and compounded by the distribution system of state and federal resources results in vast disparities in funding for schools, with broad implications for educational inequality. Historical policies that have contributed to residential segregation and concentration of poverty contribute to the underfunding of schools. Schools in neighborhoods with greater wealth have greater funding and increased course offerings, smaller class sizes, better trained and more highly experienced teachers, up-to-date curricula and equipment, and more supportive services, all which lead to better educational outcomes.\(^{82,83,84}\) Additionally, many rural school districts are under-resourced in part because of their lower population densities and grant-funding policies and practices that favor large geographically concentrated districts. Rural schools also have unique challenges, including lower salaries for employees, and lack of access to professional development opportunities.\(^{85}\)

There can also be variations within districts. According to federal law, schools with high numbers of students in poverty that receive federal funding known as Title I are required to provide comparable services to more affluent schools that do not receive Title I funding. However, the comparable services requirement loophole undoes the intention of the law because it allows districts to focus solely on number of services offered, such as number of teachers employed, while ignoring imbalances in expenditure for teachers’ salaries and the qualifications of instructional staff.\(^{86,87,88}\) As a result, there is an imbalance in per pupil expenditure at affluent schools as compared to low-income schools and services may in fact not be comparable in quality.

School segregation by race was legal until the Supreme Court case *Brown v. the Board of Education* in 1954 ruled that the driving premise, “separate but equal,” was unconstitutional. Since that ruling, policies and have led to the re-segregation of schools both within and between school districts, such that schools are more segregated now than they were in the late 1960s. For example, the Supreme Court’s 1991 decision in *Dowell v. Oklahoma City* empowered districts to lift desegregation plans and return to neighborhood schools.\(^{89}\)
School segregation occurs most commonly by race/ethnicity and by socio-economic status, and increasingly also by language.\textsuperscript{90}

Funding for preschool and higher education also creates barriers to educational attainment in the U.S. **Underfunding of preschool education** at the federal, state, and local levels contributes to lack of high quality, affordable options. Ten states do not fund preschool at all.\textsuperscript{91} As a result, despite gains in pre-school enrollment overall, only 30\% of 4 year olds are enrolled in state supported pre-school education.\textsuperscript{92} Meanwhile, at a time when the share of jobs requiring a post-secondary education has doubled, the **increasing cost of higher education** prevents many low-income students and students of color from pursuing a college education.\textsuperscript{93} Largely due to state funding cuts, the cost to attend public universities has risen faster than inflation – quadrupling over the past 35 years.\textsuperscript{94,95} With regard to higher education, black and Latino soldiers returning after World War II as a whole did not receive the same level of educational benefits through the **GI Bill** as their white counterparts. Distribution of GI Bill benefits was controlled at the local level, which resulted in vastly different allocations of benefits across the country.

Lastly, **differential and harsh discipline policies and practices** toward students of color and students with disabilities, including disproportionate rates of suspensions and expulsions contribute to school dropout and other negative outcomes, including greater interactions with the criminal justice system and fueling the school-to-prison pipeline.

**Sample community impacts that contribute to poor health and lack of safety**: The impacts of these policies and practices at the community level include: lack of hope, unhealthy norms, decreased civic participation. Deteriorated school buildings. Reduced graduation, literacy, educational achievement, and employment opportunities; decreased opportunity for social mobility; increased residential segregation.

**Sample Policies, Practices and Procedures that Produce Inequity (What & How)**

<table>
<thead>
<tr>
<th>Key sectors (Who): Education, Housing, Justice</th>
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<tbody>
<tr>
<td>Education financing system</td>
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<td>Lifting of desegregation orders</td>
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<td>Underfunding of preschool education</td>
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<td>Increasing cost of higher education</td>
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<td>Differential quality by neighborhood wealth</td>
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<td>Grant formulas favor concentrated populations</td>
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<td>Differential discipline practices</td>
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<td>Increasing Inequity</td>
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\textsuperscript{Comparability services requirement loophole}
Employment

What happens to a dream deferred?

-Langston Hughes

Policies and practices in the U.S. create inequities in health through shaping who has access to employment, as well as the terms and conditions of that employment. A number of policies and practices make American workers vulnerable to poor health outcomes, particularly people of color and workers with low-average household incomes.

The 1970s represented a decade of dismantling American factories as corporations began to operate overseas where labor and production costs were less regulated and cheaper. This practice of globalization led to the loss of thousands of unionized manufacturing jobs and to the growth of polarized service positions through the 1980s and 1990s, with high-paid producer services industries (e.g. accounting, finance, law, management, information processing) on one end and low-wage personal services jobs (e.g., hotel and restaurant workers) on the other.

Once people are employed, they are subjected to a wide variety of employment environments. Industry practices that put worker health at risk include the use of dangerous chemicals or pesticides in manufacturing, production and agriculture industries. Scheduling practices, including short notice, fluctuating hours, lack of schedule control, underemployment (including an inability to qualify for some benefits) and “Clopenings”, are legal in the U.S. and impact workers with low-average household incomes more frequently than workers with higher average household incomes and workers with higher status. Right to work policies have weakened unions and the protections that are guaranteed through employment. Minimal parental leave, limited childcare, lack of family friendly policies, and not being guaranteed sick leave reduce the benefits of employment. For workers at small firms, small business exemptions, reduce the reach of protections that are in place. In addition, industry practices put worker health at risk, while the disproportionately low number of small business loans given to blacks and Latinos makes it more difficult for these groups to start their own businesses.

Post WWII job placements sent veterans of color into lower-wage, unskilled jobs; with limited social mobility in the U.S., this could continue across generations. Redlining contributed to residential segregation which increased the distance between workers of color and jobs, a reality which is exacerbated by insufficient public transit systems to get people with lower incomes to and from work. Modern day hiring practices can also reduce access to employment for people of color and reduce the opportunity for people of color to be employed in high-paying, management positions. For example, a 2008 study -- which predates the great recession -- demonstrated that black men spent considerably more time searching for work, obtained less work experience, and were placed in less stable employment than white males with similar characteristics. Widely cited in the literature, a 2003 field experiment showed that job applicants with white sounding names were more than 50% more likely to get called back than applicants with people with black sounding names despite the same qualifications. Also, some institutions ban or restrict employment for people with convictions, who are disproportionately men of color.

Sample community impacts that contribute to poor health and lack of safety: The impact of these policies and practices at the community level have been devastating include barriers to employment, reinforcing a cycle of unemployment, and offering little protection in employment. The impacts reinforce one another: as unemployment grows so do barriers to employment, and the likelihood that a person with a job has few workplace protections.
Countering the Production of Inequities to Achieve an Equitable Culture of Health

Sample Policies, Practices and Procedures that Produce Inequity (What & How)


**Income and Wealth**

*The opposite of poverty is not wealth. In too many places, the opposite of poverty is justice.*

— Bryan Stevenson

Income is generated primarily through employment and the policies and practices that create inequities in employment drive income inequities. For those who are employed, wages largely determine income, and a myriad of policies and practices perpetuate wage and income inequality. For example, since the late 1970s, Americans workers have experienced wage stagnation, despite increased productivity, while the earnings of those at the top have tripled.\(^99\) This lopsided growth has increased income inequality.\(^100\) Moreover, women and people of color experience a wage gap, earning less than their white male counterparts.\(^101\) For those at the bottom of the earning spectrum, the federal minimum wage of $7.25 per hour is insufficient to lift a single parent working full time at minimum wage out of poverty.\(^102\) Agricultural workers and domestic workers are particularly vulnerable, as they were not guaranteed a minimum wage through Federal Fair Labor Standards Act.\(^103\)

The social safety net is meant to prevent people from falling into material deprivation. While it is successful at preventing poverty for some, gaps in coverage and recent reforms leave certain populations vulnerable, particularly for example, single mothers. Single parent families, which are overwhelmingly headed by single mothers, were hit particularly hard by the reform. These families receive 35% less in government transfers than they did 30 years ago, while married families receive more and older adults have experienced a 20% increase in funding.\(^104\) In addition, other safety net policies, such as Supplemental Nutrition Assistance Program (SNAP, formerly called “food stamps) and Women, Infants, and Children (WIC) are under threat, having been cut in recent years. Since 2000, the percent of families with children living in extreme poverty has risen when cash income – including government transfers – is considered.\(^105\) An important change to American government assistance came in 1996 with the passage of the “Personal Responsibility and Work Opportunity Reconciliation Act” (PRWORA). This legislation replaced Aid to Families with Dependent Children (AFDC), a cash assistance program, with Temporary Assistance for Needy Families (TANF), eliminated the entitlement to cash assistance, and instituted work requirements, dramatically changing access to cash for people receiving government subsidies.\(^106\) Along with the Earned Income Tax Credit (EITC), which bolsters the
earnings of low-income workers, PRWORA put work at the heart of government assistance, making those with barriers to employment particularly vulnerable to extreme poverty.

Wealth accumulation was greatly hindered for communities of color through policies that impact homeownership, such as predatory lending and redlining. Homeownership is a cornerstone of wealth accrual in the U.S. The GI bill, along with other practices such as predatory lending, has made home ownership far more difficult for people of color. Prior to the 1970s, it was nearly impossible for African American, Latino, or Asian American families to access credit from the commercial banking industry to purchase homes. This led them to rent or to buy homes “on contract”: a predatory lending agreement in which the seller held the deed until the home was paid in full, and the purchaser would accrue no equity. Currently, people of color, and especially women of color, are more likely to receive subprime loans as a result of predatory lending from banks, regardless of their income or credit score, to get denied a loan, or to lose a home to foreclosure. By impeding homeownership – or homeownership in areas where home values increased significantly in comparison to redlined areas, these policies undermined wealth accumulation for people of color, as homeownership is a central tenet of intergenerational wealth accumulation in the U.S. Today, areas of concentrated poverty are on the rise: since the economic downturn of the 2000s, poverty has become more concentrated in high-poverty, distressed neighborhoods. In addition, people living in areas of concentrated poverty are often subjected to a poverty tax, as goods and services cost more and require more time to procure.

Technological advancements, the economic recession, educational inequities and tax policies that favor the wealthy are among the top factors that have hindered the accumulation of wealth for low-to-moderate income households. Low-skilled jobs have been replaced by machines or outsourced to other countries resulting in fewer available jobs and lower wages for less educated workers while increasing wages for higher-income earners. Inequitable access to educational opportunities fueled by the rising cost of higher education, along with lower levels of college readiness among those with inadequate K-12 preparation, led to lower rates of educational attainment particularly among children of low-income families—decreasing their job opportunities and earnings. These trends have been exacerbated by the economic downturn during which unemployment among those with the lowest education levels increased more rapidly than college-educated workers – leading to higher rates and longer periods of disengagement from the workforce. Unlike the wealthiest households, low and middle-income families rely on earnings for their incomes and homes as their primary asset. Consequently, the higher rates of unemployment and the rapid decline of the housing market during the early 2000s led to a significant loss of wealth among these families. Conversely, those at the top of the ladder, who earn much of their income through capital market investments, recovered their wealth more rapidly since these assets recovered faster than jobs and wages after the recession. Collectively, along with weakening workers’ rights, the exploitation of undocumented workers, a tax system which protects the wealth of those at the top, along with very high salary increases that outpaced productivity among the highest wage earners – the wealth divide has grown substantially between high and low-to-moderate income families.

Sample community impacts that contribute to poor health and lack of safety: The consequences of concentrated poverty are multiple. Residential economic segregation and concentrated poverty -- known barriers to economic mobility -- mean that low-income people not only have a hard time making ends meet at home, but have fewer resources that are easily accessible to them, and are surrounded by others who are

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† Defined as less than $2 per person per day
struggling. Concentrated poverty is associated with higher crime rates, lower employment rates, lower educational achievement, and worse health outcomes. In areas of concentrated poverty, it is more common to find payday lenders, pawn-shops and corner stores than banks and grocery stores, and these alternative financial service providers become relied upon to meet ordinary household expenses. Predatory lending businesses promote a vicious economic cycle that affects economic security of low-income people and other vulnerable groups. As areas of concentrated poverty increase, lack of trust, deteriorating housing stock, and perceived lack of safety grow. Other impacts include: Deteriorated housing stock and infrastructure and the inability to afford adequate housing. Concentrated areas of low-wealth, borrowers of color received the most expensive loans and were most likely to receive subprime loans associated with increased default risk, low quality schools, limited access to jobs and essential services such as food and public transportation, inadequate tax base.

Sample Policies, Practices and Procedures that Produce Inequity (What & How)

Key sectors (Who): Agriculture, Banking/Finance, Business/Industry, Economic Development, Education Healthcare, Housing, Workforce Development

Access to Quality Health Systems and Services

‘Of all forms of inequality, injustice in health care is the most shocking and inhumane.’

- Dr. Martin Luther King, Jr.

The healthcare system in the U.S. is contributing to health inequities in three ways: 1) Directing attention to treating illnesses and injury rather than preventing them; 2) Using a huge share of public and private resources – such as Medicaid, Medicare, employer-sponsored health insurance, and family out-of-pocket expenditures – for treatment, rather than investing in community factors to promote health equity such as housing, education, food systems, public transportation, and employment; and 3) Attaining less-than-optimal health services outcomes for people of color and people with limited economic resources, such that some segments of these populations are unable to access evidence-informed health services. Despite the importance and growing recognition of non-medical and community factors as key determinants of health, governmental public health is under-resourced and not consistently working with healthcare to facilitate population health transformation. This transformation must include authentic partnerships and resources for community organizations and residents in communities of color and communities with limited economic resources, with the goal of assessing, prioritizing, and implementing strategies to promote health equity. Further, healthcare organizations are not regularly using their credibility or role as anchor institutions – as employers, purchasers, investors, and leaders – to advance health equity in the communities they serve.
Lifetime experiences with discrimination coupled with other determinants of health not only impact access to quality health systems and services; they impact health outcomes for populations experiencing a disproportionate burden of illness and injury. Determinants of health are significantly affected by the lack of opportunities in communities that have been marginalized. This, in turn, limits opportunities to access quality health systems and services within these communities.

After the landmark IOM report titled “Unequal Treatment”, the U.S. health system has incrementally responded to inequities in access to health systems and services by pushing for increased access to health insurance coverage, improved screening for preventable conditions, implementation of workforce diversity programs, and the encouragement of clinical data integration and analytics. Another important step has been the increased linkage of healthcare services with community-based social services and supports. Yet these efforts have not adequately closed the gap on access to quality health systems and services. **Broader attention needs to be given to the entire population** in order to address persistent inequities. There remain a remarkable number of uninsured individuals who do not receive timely health screenings for preventable conditions through primary care; the healthcare workforce is often not representative of the community it serves; and clinical data is not linked to and analyzed with data on community determinants of health. Despite the investment in new reimbursement models, the **funding and financing of the health system still emphasizes volume over value, prevention, and primary care.**

**Sample community impacts that contribute to poor health and lack of safety:** Inequities in access and system barriers reinforce these policies and practices and result in inequities in premature death and morbidity from preventable chronic diseases, injury, and disability. Underinvestment from the health sector in addressing DOH and community factors to promote health equity such as housing, education, food systems, public transportation, and employment. Less-than-optimal health services outcomes for people of color and people with limited economic resources, such that some segments of these populations are unable to access evidence-informed health services. Historical mistrust in healthcare and seeking services only when it inhibits employment; centralization of health systems and services outside of communities of need; and disruption of employment and educational opportunities from preventable medical conditions.

**Sample Policies, Practices and Procedures that Produce Inequity (What & How)**

**Key sectors (Who):** Healthcare, Human/Social Services, Public Health
The Production of Health Inequity Among Communities of Color and Communities with Low Average Household Incomes: Social Constructions and Limitations of the Data

Often in papers and discussions about racial/ethnic and socioeconomic inequities in health outcomes, specific groups are classified and pulled out (e.g. African Americans, American Indians, Latinos, households at x% below the poverty line). Starting in 1997, the Office of Management and Budget (OMB) requires federal agencies to use a minimum of five race categories: White; Black or African American; American Indian or Alaska Native; Asian; and Native Hawaiian or Other Pacific Islander. The OMB defines Hispanic or Latino as “a person of Cuban, Mexican, Puerto Rican, South or Central American, or other Spanish culture or origin, regardless of race.” In data collection and presentation, federal agencies are required to use a minimum of two ethnicities: “Hispanic or Latino” and ”Not Hispanic or Latino”. Indeed, many of the examples highlighted throughout this paper reference these groups. More frequently, however, this paper references communities of color and communities with low-average household incomes.

It should be noted that not all communities of low-average household incomes are communities of color; however people of color comprise a disproportionate share of those living in communities with lower average household incomes. These economic impacts are exacerbated by biases related to perceived race/ethnicity.

While having specific categorizations of race/ethnicity has some advantages, notably measurement, the ‘production’ analysis in this paper revealed that policies, practices and procedures do not necessarily impact a specific category. While there are exceptions to this, notably policies enacted about tribes and, for example, the Chinese Exclusion Act, more broadly policies, practices and procedures have reinforced a norm and value that all people are not treated equally or given equitable opportunity for good health. More specifically, the application and impact of policies, practices and procedures has not necessarily stopped at one racial/ethnic category. For example, the practical application of segregation-based policies has been based on perceived race/ethnicity (e.g. physical features such as skin color, eye color and hair texture), which in itself is a social construction and inconsistent. In her testimony to the Institute of Medicine, Dr. Camara Jones epitomized this construction by sharing that in

Data limitations to racial/ethnic data

While it is vital to understand historic and current health disparities across racial, ethnic and socio-cultural groups; understanding the evolution of socially constructed racial categories for census data and academic research give context to analysis and literature on the impacts on the determinants of health. Some identified confounds include:

1. **Race and ethnicity is not a fixed measure.** The currently used census (and literature) categories for race and ethnicity in the U.S. have evolved from the late 18th century – based on social norms and the purpose of the data - with significant changes in the 1900’s, the 1930’s and 40’s, the 1960’s and 70’s and most recently by the OMB standards established in 1997. This has implications for consistency in recording of the health of Latino, Caribbean, Asian and other populations, for example, which have been subject to varying categories and the bias of available categories.

2. **Only high index numbers get counted.** Inequities are often framed to show only the most disparate results, sometimes suppressing data where the population is not a significant percentage of the population. This has implications for the underrepresentation of populations in health disparities data and research literature.

3. **Segregation-oriented practices impacted many populations.** While segregation-oriented literature emphasizes the treatment of blacks, it should be understood that many groups of color have experienced impacts that may not have been quantified through research or published. For example, the racially charged Jim Crow practices are frequently associated with their impacts on African Americans, particularly in the south; these practices however, impacted other ethnic
Washington, D.C. she is perceived to be black, in Brazil perceived to be white, and in South Africa perceived to be colored. Another example is that until 1952, although the US Supreme Court recognized Asian Indians as “Caucasian”, it declared that they could not be considered “white” and therefore, were ineligible for citizenship. Social constructions of race and ethnicity have helped to reinforce and maintain white privilege.

Other limitations of the categories and data based on them include: 1) race and ethnicity is not a fixed measure, 2) only high index numbers get counted, 3) segregation-oriented practices have impacted many populations, and 4) research bias. This paper’s analysis was confronted with the challenge of breaking down the specific impacts of policies, practices and procedures on specific racial/ethnic categories. For example, while Jim Crow laws are widely known for their intention and impact on African Americans, the reality is that people perceived to be of color, including, for example darker skinned Latino or Asian Americans, were impacted by these laws and practices.

Therefore, below we have provided examples of how bias in the policies, practices and procedures highlighted in this paper have contributed to the production of health inequities, and have impacted different groups of people across multiple racial and ethnic lines. Examples of impacts on individuals and communities include:

- **Perceived race/ethnic group based on physical features**: Racial classification in the U.S. has largely been applied using ‘manifest indicators’ such as skin color, eye color and hair texture. Consequently, the social interpretation of a person’s skin color often dictates whether and to what extent certain policies and practices will be applied and subsequently. Sample policies and practices that have been applied using this criteria include: redlining; provision of access to goods, services and academic programs; profiling (including stop and frisk) in policing and retail security practices; and healthcare treatment (e.g., decision-making in treatments).

- **Immigration status**: Similar to “non-white” U.S. residents, immigrants to the U.S. have been subjected to a wide range of exclusionary policies and practices. For example, the Chinese Exclusion Act of 1882 prevented Chinese workers from immigrating to the U.S. and Chinese Americans were seen as economic competitors and racially inferior until China became an ally during World War II. These types of policies set the precedence for the exclusion of certain groups based on their country of origin and helped to shape the classification of different immigrants as “white” and “non-white”, with immigration policies demonstrating preference for people from western European countries. These policies influenced the types of services and supports made available across multiple sectors, including: school enrollment; preventive and routine health care; citizenship and deportation policies and practices.

- **Language preference and fluency**: The growing diversity of the U.S. has resulted in more than one in five U.S. and foreign-born individuals speaking a language other than English at home. Policies, practices and procedures that impact health and well-being outcomes include: placement in special education; unequal access to legal representation and sentencing practices; lower quality healthcare including as a result of limited linguistic capacity and cultural competence within healthcare compared to the needs of the population.

- **Neighborhood wealth**: The ability to accumulate wealth is associated, in part, with land and home ownership. The accumulation of wealth has been impacted by a number of policies and procedures including predatory, sub-prime lending; Incentivizing liquor stores and predatory lending outlets; displacement for highways and civic project; siting of environmental hazards; suburban renewal and urban core disinvestment; civic petitions requiring signature of home owners despite impacts on rental residents; academic and business loans based on land-based equity; and the Dawes Act, which fragmented American Indian ownership of land.
Findings about the Determinants of Health and Achieving Health Equity

The analysis of the AHE team’s prioritized DOH has resulted in a number of findings that inform a direction for actions to achieve an equitable Culture of Health. The overarching findings are:

1. The AHE team’s prioritized DOH have well-documented connections to health and safety, illness and injury and inequities in health and well-being outcomes. Environment (Socio-Cultural Environment and Built/Physical Environment), Housing, Public Safety, Education, Employment, Income & Wealth, and Access to Quality Health Systems and Services are all strong determinants of health and well-being (see Appendix B). Altering the way they play out in communities is supportive of achieving health equity.

2. Health inequities have been produced. Within each DOH, there are policies, practices and procedures – some deliberate, some inadvertent; some historical, some current day – that have contributed to health inequities across racial/ethnic and socio-economic lines. For a historical example: the GI Bill, although it was a race neutral policy – presumably written to honor and offer social advancement to those who served in WWII – contributed to residential segregation, concentrating poverty particularly among African Americans in America’s cities. For a current example: zero tolerance policies in schools which have played a role in creating a cradle to prison pipeline and racial bias in renting housing units.

3. The DOH are interrelated and interconnected. It’s difficult to disentangle any one DOH from one or more others in regards to health equity; they are connected through policies, practices, systems and sectors, as well as in their impact on communities. For example, a lack of public safety inhibits economic development in communities, which impacts employment and income and wealth. Conversely, educational outcomes, income and wealth and employment are all associated with an increased or decreased risk of violence (public safety), as is the socio-cultural and physical/built environment. The diagram of gears represents that the DOHs are interreconnected – they influence each other and are influenced by each other.

In environments where multiple DOH are negatively compromised, the production of inequity may be accelerated and compounded across multiple generations. A profound example of this is found in growing levels of poverty in the U.S. While existing antipoverty efforts are designed for those who can climb back to self-sufficiency within 5 years or so, it is estimated that more than 20 million adults and
children live in deep poverty. This element of the Income and Wealth DOH has implications for the other DOH as well.

4. **Specific sectors are key actors within the DOH and in many cases, within multiple DOH.** A sector is a specific field, discipline, or area of expertise that is characterized by a combination of related activities and functions that are typically understood as distinct from those of others. In this analysis, fourteen specific sectors emerged as key actors within the DOH. In many cases, sectors have played historical and/or current roles in the production of health inequities. Examples of how these sectors have contributed to the production of health inequities are below. All of the identified sectors have critical roles to play in achieving health equity. Cross-sector engagement and collaboration becomes an engine that generates new ways to catalyze and sustain change. This is well-aligned with Culture of Health, which emphasizes multi-sector collaboration to build health partnerships as one Action Area. The COH Action Framework diagram on page 20 depicts the fourteen sectors that can serve as an engine to drive action in the other areas toward an equitable COH. COH Action Framework diagrams beginning on page 109 depict specific sectors as actors for each DOH.

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**The Production of Health Inequities: Examples Across Sectors**

Fourteen sectors were identified in this analysis as contributing to the production of health inequities through policies, practices and procedures. While not every action or every individual involved in each sector has been part of the production of health inequities, it is important to understand the various ways in which health inequities have been produced, whether the production was intentional or inadvertent. This understanding helps informs solutions. Examples how different sectors have contributed to the production of health inequities are included in each previous section about each DOH and some examples are also provided below. Significantly, each of these sectors has a critical role to play in producing health equity.

1. **Agriculture:** Agricultural subsidies incentivize the production of crops for food that are cheap, high-fat, high-sugar and processed making healthy food less affordable for people of low-income, communities of color and rural residents; benefits through agricultural government sponsored food programs, such as WIC and SNAP cannot be widely used at farmers’ markets limiting access to healthy food for recipients; the health and safety of agricultural workers is jeopardized by exposure to and inadequate protection from pesticides and other environmental hazards; some agricultural rights on American Indian lands have been granted to corporate interests, limiting tribal capacity to grow food and make income from it.

2. **Banking/Finance:** Banks engaged in predatory lending practices and developed inequitable financing options, such as subprime loans, for women, people of color and low-income, limiting their opportunity to own and keep a home and hindering their ability to accrue equity and wealth; through the practice of redlining, bans undermined wealth accumulation for people of color by preventing them from buying homes where home values would increase; bank closings in communities of low-income have left residents to rely on alternative, more costly financial services, such as payday lenders that charge higher fees to access money; banks have limited access to small business loans for women and people of color and, when loans are granted, give lower loan amounts and charge higher interest rates; small business loan practices required minimal capital for start-up of liquor stores, this fueled the density of alcohol outlets in communities of color and low-income.

3. **Business/Industry:** Business hiring practices, such as criminal background checks, and the lack of family-friendly policies, such as minimal parental leave, limited childcare and the lack of guaranteed sick days are obstacles for low-wage workers and workers of color; business investments have favored white and affluent communities resulting low-income communities having fewer chain supermarkets than...
higher income communities; globalization led to the loss of thousands of manufacturing jobs, leading to the growth of low-wage service positions.

4. **Economic Development:** Publicly subsidized economic development programs, such as Enterprise Zones, have contributed to the concentration of industry in communities of color and communities with lower incomes; without authentic engagement of community organizations and residents, the economic development sector has contributed to displacement of those with low to moderate average household incomes, disproportionately impacting communities of color.

5. **Education:** School funding formulas result in vast disparities in spending per-pupil; lifting of desegregation plans has re-segregated schools by race/ethnicity, socio-economic status, and increasingly by language; inadequate funding of preschool education contributes to a lack of high quality, affordable options; increasing costs of pursuing higher education prevent many low-income students from pursuing a college education; zero tolerance policies have resulted in unequal suspension and expulsion for students with disabilities and students of color.

6. **Healthcare:** Healthcare directs its attention to treating illnesses and injury rather than preventing them; healthcare spends a large share of its resources on treatment rather than investing in community factors that promote health equity; the linguistic capacity and cultural competence in the healthcare sector is inadequate relative to the increasing needs of populations with limited English proficiency.

7. **Housing:** The Federal Housing Administration incentivized racial and economic residential segregation by guaranteeing loans to suburban developers as long as they did not sell to populations of color; the Housing Act of 1937 contributed to racial segregation by requiring public housing inhabitants to be of the same race as the neighborhood of the development in which it was located.

8. **Human/Social Services:** The Personal Responsibility and Work Opportunity Reconciliation Act (PRWORA) put stringent work requirements in place, limited access to cash and assets such as vehicle ownership and has made recipients vulnerable to extreme poverty; safety net policies, such as SNAP and WIC, are under-resourced and consistently under threat of funding cuts, putting families of low-income at-risk of further material deprivation; eligibility requirements for Aid to Families with Dependent Children.

9. **Justice:** Community policing practices such as “stop and frisk” have targeted communities of low-income and people of color resulting in disproportionate contact with the criminal justice system; differential sentencing laws, such as those for drug possession of cocaine versus crack, fuel longer prison terms for people of color; Racial bias has motivated police violence against men of color, and fostered mistrust and fear of law enforcement in communities of color; criminalization of substance abuse and mental illness has particularly impacted people with low-incomes who may not otherwise be able to pay for legal services or health services.

10. **Labor:** The declining influence of labor unions is associated with a decrease in wages and benefits – wages, for example, are lower in right to work state; some police unions have opposed the reform of racial profiling practices; teacher unions have focused on the protection of teacher rights even in cases of retention of poor quality teachers.

11. **Land Use and Management:** Zoning decisions facilitated the overconcentration of environmentally hazardous land uses in primarily communities of color and low-income; The General Allotment Act of 1887 (Dawes Act) resulted in fragmented ownership of Indian land hindering their ability to use the land for agriculture and business development; alcohol outlet density is more concentrated in communities with lower average household incomes; there is less investment in maintenance and improvement of parks, trails and recreational facilities in communities with low-average incomes.

12. **Public Health:** Public health is under-resourced and not consistently able to work with healthcare to improve population health; fragmentation of research and funding limit the development and implementation of comprehensive approaches which address the multiple determinants of health; some public health programs and departments rely on a narrow evidence-base to inform policy and program development which undermines their credibility to address populations with health disparities and limits broad adoption of public health strategies; some public health departments do not engage the communities most impacted by inequities in health in finding solutions.
13. **Transportation:** The Federal-Aid Highway Act (1956) financed the building of highways which cut through urban neighborhoods and parks, undermined local businesses and fostered residential segregation; transportation funding policies have favored investments in roads and highways over public transit and pedestrian/bicycle infrastructure, leading to an overreliance on automotive travel.

14. **Workforce Development:** Workforce development programs, such as apprenticeships, target male-dominated fields, resulting in fewer opportunities for women to strengthen work skills; employer-sponsored work development programs target training programs toward employees with higher education, widening the gap in skills between workers with less education; governmental funding of workforce development programs for workers that have been disadvantaged and disconnected youth has decreased over time, limiting opportunities to increase earnings.

5. **There is more written about the problem of health inequities than the solutions for health equity.** The literature is abundant with data that documents inequities in health outcomes. However, there is less written about what to do about it, particularly about the complex interactions between DOH, sectors, policies and systems. The literature tends to emphasize programs, which are easier to evaluate than comprehensive strategies. There is also some growing attention to the need to apply a ‘laser focus on health equity’ or health equity lens in implementing evidence-based strategies, such as underscored by the Centers for Disease Control and Prevention’s Practitioner’s Guide to Health Equity, which includes considerations for implementing strategies in low income communities and communities of color. Sample programs and policies for each of the DOH are included in Appendix C, as well as their community-level impacts. Overall, because there is more written about the problem than solutions; there is a need to turn to practitioners and community for direction on solutions. This is consistent with the CDC’s Framework for Evidence: evidence includes best available research, contextual evidence and experiential evidence. Consistent with ‘rules’ laid out in Fostering Systems Change, the systems laid out in this paper ‘set the direction’ for achieving an equitable Culture of Health in the absence of a clear evidence base about the specific solutions. Rather, the analysis points to the need for systemic change, which goes far beyond what a specific program could accomplish.

6. **Residential segregation is the consequence of policies, practices and procedures across multiple DOH, such as redlining by housing lenders, unequal investment in schools and transportation, and judicial rulings supportive of segregation.** Economic and racial segregation is one of the most powerful forces shaping health in the U.S. This segregation is not inevitable; it has been established and maintained through government policy and investment and the practices of institutions and organizations. Perhaps because there is more data about segregated urban populations, the negative health impact of residential segregation is most commonly associated with African Americans. However, contributing factors and potential impacts are more far-reaching. The health impacts stem from lack of opportunity to health promoting conditions and exposure to hazardous conditions and are associated with concentrated disadvantage or economic segregation. Segregated communities are more likely to have limited economic opportunities, a lack of healthy options for food and physical activity, increased presence of environmental hazards, substandard housing, lower performing schools, higher rates of crime and incarceration, and higher costs for common goods and services (the so-called “poverty tax”). While residential segregation has improved overall (in that it has declined) since 1960, people of color are increasingly likely, relative to whites, to live in high-poverty communities. This does not negate the positive and protective aspects of people living together in
cohesive communities, including, for example, new immigrants. However, when any group of people is living in conditions without opportunities for good health, such as concentrations of deep, multi-generational poverty, segregation is not conducive to health especially over time. Addressing residential segregation — segregation from opportunity, income, and power to make another choice -- are key to producing health equity.

7. **A great deal of the production of health inequities is fueled by norms and shared values within sectors and institutions; bias, discrimination and institutional racism contribute to and exacerbate inequities in health.** Organizational norms construct the lens through which policies become practices; workforces are trained and informal interpretations become decisions at the point of service. These cultural values also become urban myths that present additional barriers to seeking and receiving assistance. An example of this is the widely held belief that persons with felony convictions are prohibited by HUD from Section 8 voucher and/or public housing programs. HUD has recently clarified that it was not federal policy, but local public housing authority discretion; this mutable discretion, coupled with community perception of the rules, contributed to the break-up of family units including displacement of youth offenders. A Shriver Center report, *When Discretion Means Denial*, examines the nuances with which this federal guideline was applied and its impact on recidivism and homelessness. The strength of shared values among partnering organizations and sectors can accelerate the production of health inequity or health equity. Similar to the culture of discrimination that accelerated the practice of redlining across many sectors, an equitable COH can accelerate community transformation when it is shared across multiple sectors focused on reducing inequities in health and well-being outcomes.

8. **There is a need for actionable solutions that will produce systemic change.** The impact of inequitable policies and practices is felt -- among other places -- at the community level, resulting in conditions that are not conducive to health and well-being. The community is a place for actionable change. Further, looking at the roles and contributions of multiple sectors, which are already engaged in policies, practices and procedures every day at multiple levels, is a lever for actionable change. The first step in identifying roles and contributions of each sector in solutions is to understand key information about each sector, such as mandate, activities and data collected. Understanding these kinds of elements will also inform the best ways to engage sectors in a multi-sector effort to achieve health equity. A Collaboration Multiplier Phase I grid summarizes this information about the key sectors needed to achieve health equity (see pages 43-45).

9. **There is a pathway to produce health equity.** Within the production line to inequity, there are lessons that can inform work moving forward on systems and strategies to produce health equity. These and other lessons help construct and expand a range of systems that can produce health equity by:
   - **Interrupting or reversing** the production of health inequity through policy and practice change;
   - **Ameliorating** the impacts through community level change, supported by regional, state, federal and sectoral action.
   - **Accelerating and sustaining** the production of health equity;
   - **Introducing calibration points** so that we measure progress in production of health equity at the local level; and
   - **Changing norms and values** to produce equitable opportunities for health and well-being.
<table>
<thead>
<tr>
<th>Mandate</th>
<th>Agriculture</th>
<th>Banking/Finance</th>
<th>Business/Industry</th>
<th>Economic Development</th>
<th>Education</th>
</tr>
</thead>
<tbody>
<tr>
<td>Produce food</td>
<td>Promote financial stability and growth for private and public sectors</td>
<td>Generate profit; provide goods and services; create demand and meet supply needs</td>
<td>Create a vibrant economy</td>
<td>Prepare students for success</td>
<td></td>
</tr>
<tr>
<td>Produce food and agricultural products; manage agricultural inputs (e.g. seeds, water, soil, nutrients, labor); manage threats (e.g. flood, drought, pests, disease)</td>
<td>Manage a systematic check and balance system; oversee loans, investments, currency exchanges and deposits for businesses and the general public; maintain financial stability through the regulation of investments, loans, and financial institutions.</td>
<td>Produce, market, distribute and/or sell goods and services; develop and employ a workforce; research and development of new products, technologies, etc.</td>
<td>Create jobs and business opportunities, and foster an economic climate that attracts businesses, assist and train businesses, investors, and entrepreneurs.</td>
<td>Impart knowledge and skills, educate students using approved curriculum, support teachers in providing quality instruction, and assess students’ mastery and knowledge, create environments conducive to learning</td>
<td></td>
</tr>
</tbody>
</table>

**Sample Data Collected**

- Agricultural statistics including productivity, efficiency, and rural development
- Food price data and food consumption trends
- Crop production index
- Crop diversity
- Weather data
- Worker availability
- Subsidies
- Productivity and consumption trends
- Employment and wage rates
- Consumer Price Index
- Investment trends/stock market
- Inflation rate
- Employee hours and earnings
- Domestic producers of goods and services
- Illness and injury on the job
- Producer Price Index
- Labor costs and productivity
- Job growth and number of local employers
- Revenue from business and sales tax
- Trends in the real estate market and hotel business
- Increased number of new businesses
- Academic achievement and graduation rates
- School connectedness
- Attendance, absenteeism, and disciplinary actions
- Student perceptions of school safety, and reports of physical fighting
- College/career readiness
## Collaboration Multiplier Phase I Grid – Overview of Mandate, Activities and Data for Key Sectors (2/3)

<table>
<thead>
<tr>
<th>Healthcare</th>
<th>Housing</th>
<th>Human/Social Services</th>
<th>Justice</th>
<th>Labor</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mandate</strong></td>
<td>Improve health outcomes and address health concerns</td>
<td>Ensure high quality, permanent, and affordable housing</td>
<td>Aid and protect vulnerable populations</td>
<td>Protect the public, maintain order, deter crime, sanction those who violate the law, and supervise and rehabilitate</td>
</tr>
<tr>
<td><strong>Main Activities</strong></td>
<td>Deliver healthcare services, including preventive care, dental care, mental health services, screening and diagnosis, disease management and treatment, emergency services, and rehabilitation; insurance/coverage provision; pharmaceutical services; research and development</td>
<td>Preserve aging housing stock; develop and maintain public housing properties, and provide federally-subsidized rental vouchers for low-income households</td>
<td>Administer benefits, provide crisis services, including case management and emergency food, clothing, utilities, child care and safe shelter; and respond to abuse reports</td>
<td>Patrol and enforcement activities, respond to crimes, conduct investigations. Oversee trials, diversion, sentencing and appeals. Oversee people on parole or probation.</td>
</tr>
<tr>
<td><strong>Sample Data Collected</strong></td>
<td>• Cost • Quality of care • Population health • Trends in hospital care • Medical insurance coverage and out-of-pocket spending • Patient satisfaction • Worker availability</td>
<td>• Housing cost Total number of housing units • Percentage occupied by owners/renters • Home-ownership rates and sale prices • Foreclosures and the number of foreclosures prevented • Rental licenses and vacancy rates</td>
<td>• Reports of domestic violence, including child and elder abuse • Requests for services and participation in programs • Clients' needs assessments</td>
<td>• Crime rates and closure rates • Information about victims and perpetrators • Incarceration rates • Status and outcomes of cases and appeals • Recidivism rates • Use of force • Disproportionate Minority Contacts • Complaints against officers</td>
</tr>
<tr>
<td>Collaboration Multiplier Phase I Grid – Overview of Mandate, Activities and Data for Key Sectors (3/3)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Land use and Management</th>
<th>Public Health</th>
<th>Transportation</th>
<th>Workforce Development</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mandate</strong></td>
<td>Manage and maintain land for the maximum benefit of the public</td>
<td>Protect the public’s health</td>
<td>Provide safe and efficient ways for people to get from place to place</td>
<td>Prepare workers to be ready for and successful in employment</td>
</tr>
<tr>
<td><strong>Main Activities</strong></td>
<td>Review and approve land development and use, assess proposals for public/private development, create and amend municipal and zoning codes and write master plans for cities and municipalities</td>
<td>Monitor the population’s health, develop and implement strategies to prevent disease, illness and injury, and develop and enforce laws and regulations that keep people healthy and safe</td>
<td>Manage transit authorities; determine the need for signals, lights, signs to guide traffic; design bus routes, install bike lanes, and provide transportation services for people with disabilities and older adults; develop and maintain roadways</td>
<td>Match job training to available employment, address barriers to employment (e.g. transportation), enhance hard and soft skills for employment readiness</td>
</tr>
</tbody>
</table>
| **Sample Data Collected** | • Oversee data on all permitted uses of land  
• Current and future land uses  
• Quality-of-life indicators  
• Census data as well as local history and the effects of historic land use | • Statistics on causes and rates of death, mental health problems, and injury  
• Rates of diseases, deaths, chronic conditions, and health behaviors  
• Health services usage and participation in community programs  
• Determinants of Health | • Statistics on traffic-related collisions and injuries, including bicycles and pedestrians  
• Data on flow of traffic, miles of bikeways, and traffic citation revenues  
• Air quality  
• Transit routes and schedules  
• Commute times  
• Traffic flow  
• Transit costs | • Industries most likely to hire  
• Skills gaps  
• Workforce conditions and trends  
• Employment barriers  
• Unemployment rate, income distribution  
• Average wages |
Towards Solutions to Produce Health Equity and an Equitable COH

There are a number of strategies that have been developed to improve health outcomes and improve disparities in health outcomes. Appendix C includes examples of policies, practices and programs for each of the prioritized DOH. Given the scale and complexity of the problem and the opportunity presented by RWJF’s emphasis on Achieving Health Equity, this paper recommends going beyond a focus on a specific DOH or strategy within a DOH. The production of inequities must be countered in order to achieve an equitable COH.

Multi-sector Systems for Producing Health Equity

*We cannot focus on transportation or housing, but need to look at the relationship between transportation, housing, jobs, and schools. We have to be very deliberate about making sure that these systems actually benefit marginalized communities. To do that you have to make sure that marginalized communities have a voice and an input.*

— John A Powell

Phase II of a Collaboration Multiplier Analysis is understanding how multiple sectors can come together to accomplish more than they can accomplish alone. This analysis was conducted in the context of understanding that multiple sectors have played roles in the production of inequity and that the production of inequities has become embedded within policies and practices to such an extent that it must be deliberately dismantled. Here it is proposed that this happen through the development of systems⁠ that can produce health equity that will be felt and experienced at the community level. While the impact will be felt at the community level, it will necessarily take actions beyond the community level, including at local/regional, state, and federal levels as well as among key sectors.

A modified phase II Collaboration Multiplier Analysis is on page 48. It includes shared outcomes and multi-sector systems for the 14 sectors. The multi-sector systems are described in additional detail in the subsequent pages, followed by a series of diagrams, including describing they relate to each prioritized DOH.

**Multi-sector system characteristics:**

1) *Each addresses multiple DOH.* In the modified COH Action Frameworks for each DOH in Appendix E, the relevant Multi-sector Systems for each DOH are included. (see page 109)

2) *Each spans multiple sectors such as education, housing, banking and finance, land use and planning and transportation.* In the modified COH Action Frameworks for each DOH in Appendix E, the relevant sectors for each DOH are included. (see page 109)

3) *The 10 are inter-related with each other.* As systems focused on promoting population health, well-being and equity, each multi-sector system represents a different avenue and focus for producing a common goal: health equity. Further, many sectors show up in multiple systems and will benefit from collaboration for improved outcomes. Finally, by looking at the interrelationship between multi-sector systems, there may be efficiencies and synergies. For example, Healthy, Equitable Land Use is a mechanism to promote Active Transportation and to support Community Safety outcomes. Each multi-sector system will have a greater impact on producing health equity when others are also in action to produce health equity.

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⁠A system is a set of interrelated parts that interact and function together to produce a common outcome or product.
4) **All are focused on promoting change at the community level, informed by the analysis of how the DOH play out at the community level.** Community change will be supported by action beyond the community level, including through the development of policies, practices and procedures at the local/regional, state, federal and sectoral levels that support health equity in communities.

5) **All are emerging strategies and elements of them are being implemented in communities and by sectors across the country.** The multi-sector systems are informed by efforts underway across the country. None of them are a specific, evidence-based program; they are far more comprehensive in order to be able to counter the production of health inequities. However, there is a growing evidence base behind them informed by an analysis of what’s creating inequities in health outcomes and emerging practices and policies at the community, local/regional, state, federal and sectoral levels. Success is possible; however, the production of health inequities has become so ubiquitous, success will require systemic change.

6) **All will have a greater impact on health equity when they are supported by a System of Health Equity.** A System of Health Equity is a way of organizing and structuring relationships, innovation, learning, and advocacy for coherent and interrelated practices – within the foundation, government, private sector and community – to attain health equity across the population. This system can track and account for the overarching findings (see pages 38-45) that emerged and will help ensure all efforts, including those to build and strengthen the multi-sector systems (see pages 46-62), will advance health equity. Essential elements for a System of Health Equity include:

1. **Purpose: Intentionality for Health Equity**
   a) Laser focus on health equity
   b) Intentionally addresses discrimination, structural racism and bias
   c) Acknowledges the systematic production of inequities by accounting for community trauma
   d) Fosters connections

2. **People: Leadership and Engagement**
   a) Shared vision and leadership
   b) Community voice, participation and leadership
   c) Multi-sector engagement

3. **Practice: Methodology and Capacity**
   a) Tools, approaches and methodologies
   b) Training and capacity building

4. **Platform: Infrastructure to Support Success**
   a) Communications/make the case
   b) Financing and funding equity
   c) Metrics and measurement
Collaboration Multiplier Modified Phase II Analysis

Aspirational Shared Outcomes

*What can be achieved together?*

- Interrupt or reverse the production of health inequity through policy and practice change
- Ameliorate the impacts of the production of inequities through community level strategies, supported by local/regional, state, federal and sectoral action.
- Accelerate and sustain the production of health equity:
- Introduce calibration points so that we measure progress in production of health equity
- Change norms and values to produce equitable opportunities for health and well-being.

Multi-sector Systems

1) Thriving Communities: Community Driven Solutions for Health Equity
2) Health Equity by Design: Healthy Land Use and Planning
3) Active Transportation for Health and Safety
4) Housing Choice to Build Opportunity
5) Sustainable Food System
6) Safe Communities through Preventing Violence
7) Cradle to Community
8) Developing a Workforce for the 21st Century
9) Creating Economic Engines in Service to Community
10) Community-Centered Health System
Multi-sector System Descriptions and Examples:

1. **Thriving Communities — Community Driven Solutions for Health Equity** A system to support community-driven solutions for health equity ensures that community members are engaged in the process of creating healthy communities. It ensures that the interests of community residents are addressed fully and appropriately and that effort draw on the strengths of a community and are tailored to the community’s values and cultures. This system includes elements such as: community infrastructure, policies, and practices for inclusive planning, decision making, and multi-sector collaboration; capacity building; and evaluation for impact, sustainability, learning, and innovation. It builds the capacity of community members to be engaged in solutions and creates the mechanisms for on-going engagement. Tools such as THRIVE (Tool for Health and Resilience in Vulnerable Environments) developed for the U.S. Office of Minority Health can support community planning processes to shape how DOH impact community health and models, such as the Place Matters initiative, can provide examples of multi-sector approaches to shift DOH at a local level. This system supports communities to address the socio-cultural environment (e.g. civic engagement, norms and culture, and social networks), the physical/built environment (e.g. what’s sold and promoted parks and open space, and arts and cultural expression) and the economic environment (e.g. living wages and quality schools) at the local level to improve opportunities for health and well-being.

   **Example: Youth Work Together to Improve Community Conditions Planada, CA**

   A partnership between the Central California Regional Obesity Prevention Program (CCROPP) and the Student Education Empowerment Development Squad (SEEDS) sparked a youth-led initiative to improve community conditions in Planada, California. CCROPP and SEEDS used Prevention Institute’s Tool for Health and Resilience in Vulnerable Environments (THRIVE) to identify community conditions that were detrimental to health in Planada and develop an action plan to improve those conditions. Youth input and perspectives drove the process of identifying which community conditions were most pressing. County CCROPP Program Manager Claudia Corchado asked the youth to take photos of their neighborhoods to connect the community environment to health behaviors and health outcomes. The resulting photos pictured gang graffiti, store windows covered in bars, and young people walking on busy streets because sidewalks were not present. With the THRIVE tool, these photographs and the conversations that followed helped the youth identify their community’s concerns related to poor health outcomes and develop action steps based on priorities. When the students connected getting around their community to injuries, they decided to focus on pedestrian safety as a key issue to improve, first by creating safe routes to school. SEEDS youth developed policy proposals to increase speeding fines in school zones and use the monies to fund improvements in sidewalk infrastructure. The students wrote opinion pieces in local media, presented to their county board of supervisors, testified before the California Senate Transportation and Housing Committee, and worked on a CalTrans Environmental Justice Transportation Planning Grant. This youth-led process influenced Planada’s municipal Pedestrian Planning Improvement Plan and created momentum for a state bill to increase fines for traffic violations in and around school zones, mirrored after increased fines in construction zones.

> When you give communities the resources and power to decide what they want to address, and they organize themselves to figure out how they want to go about it, incredible things can happen.

> — Kathy Ko Chin
**Example: Engaging Men and Boys of Color to Improve Mental Well-Being** Tacoma, WA

In 2015, the Tacoma-Pierce County Health Department (TPCHD) in Washington State began partnering with several community organizations with expertise in youth leadership, violence prevention, employment, education, urban agriculture, and equity. Through the Making Connections for Mental Health and Well-being initiative, this multi-sector partnership mobilizes boys and men of color to improve mental well-being among people in their community. Specifically, the initiative focuses on health equity, Adverse Childhood Experiences (ACEs) and toxic stressors, with a particular focus on improving the community's physical/built environment. TPCHD and partners have begun to recruit men and boys of color leaders to be part of ongoing planning processes. Through one-on-one outreach and small group discussions led by boys and men of color, men and boys themselves will identify specific strategies that will positively impact their community and bolster mental health outcomes. Upon drafting a plan that is informed by participants' input, the leadership group will conduct community forums to gather feedback and ensure that the selected strategies are reflective of the voices of the boys and men for whom it is designed to impact.

2. **Health Equity By Design: Healthy, Equitable Land Use and Planning**

Healthy Equitable Land Use and Planning is a system whereby the decisions, policies and practices of government, the private sector and community stakeholders ensure healthy, safe and resilient built environments (design, conditions and infrastructure). The system ensures that both the tools of the planning field and the process through which planning is done increases community access to health promoting resources—such jobs, transit, housing, healthy food retail, and safe places to play—while protecting people from hazardous and unsafe land uses. It also ensures that general plans and other traditional planning tools clearly articulate health equity objectives and are translated into innovative projects, improved decision making by and accountability of planning and land use entities, and enhanced health and safety outcomes through prioritized implementation, interdepartmental and cross-sector partnerships with private enterprise, and robust civic engagement to meaningfully involve residents. In this system, high-quality health and safety promoting projects in divested urban communities benefit from streamlined review and permitting, and project-based incentives to reward good investments in community health. It also facilitates healthy, equitable project design and implementation as well as policy development through high-level planning and land use capacity in community-based organizations and residents, coupled with robust community engagement activities by government agencies and non-profits. The system utilizes economic incentives as well as political and social support for healthy, equitable investments by public and private agencies result in innovative developments and projects that create value, social capital and economic growth in underserved neighborhoods.

**Example: Healthy Parks and the Interface between State and Local Policy Change**

California

In 2006, California voters enacted a bond measure allocating $400 million to improve access to parks and recreational facilities in California’s urban areas. Two years later, then-Assembly member Kevin De Leon worked with local advocates in Los Angeles to author AB 31, the Statewide Park Development and Community Revitalization Act of 2008. This act steered the funds that had been allocated in 2006 towards communities with the greatest need for increased access to green space. AB 31 specified funding preference for new parks in communities that were identified as “critically underserved”, had no parks in their neighborhoods, and where applicants had actively involved community-based groups in the planning of projects. Language referencing the health and social benefits of parks and the fact that many of California’s neighborhoods that have been under-resourced also experience poor access to parks was
In addition, AB 31 included a provision requiring the grant program to offer technical assistance to all potential applicants. This provision addressed key barriers that would have otherwise discouraged applications from cities with smaller populations and a lower average income from applying: limited budgets, fewer staff, and competing priorities present obstacles to taking on new and innovative projects. Grant-specific technical assistance built capacity, allowing these entities to compete with jurisdictions that have had access to more resources and park development expertise due to their larger population size and affluence. As a result of the equity-focused provisions guiding the AB 31 grant program, $400 million was invested in 127 new parks in neighborhoods that previously had insufficient or no park land.

3. **Active Transportation for Health and Safety** An active transportation system supports the ability to move safely and comfortably around one’s community without relying on vehicles, and to access essential places and resources such as schools, workplaces, healthy food markets, and parks. Active transportation includes modes of human powered transportation like walking, bicycling, and using a wheelchair. The system ensures that streets, sidewalks, and bike lanes are safe and inviting, and that useful, desirable destinations are located nearby, which increases the likelihood that people will use physically active modes of transportation. An emphasis on active transportation is important for health equity because low-income neighborhoods and communities of color are more likely to face unsafe road and sidewalk conditions, perceived or real threats of violence, and exposure to environmental pollutants, all of which increase the risks of preventable injuries and chronic diseases. When people don’t feel safe or comfortable in their communities, they are less likely to walk, bike, and access public transportation. A robust transportation system is one that provides safe mobility and access to resources for all users, particularly those most likely to rely on active and public transportation such as low-income households, children, older adults, and people with disabilities.

**Example: Complete Streets Columbus, OH**
In the heart of downtown Columbus, Ohio, Gay Street was the first Complete Street in the state. Efforts to transform Gay Street were designed to institute policies and practices promoting physical activity by focusing on the built environment and working with residents, policy-makers and the development community. The program worked closely with rezoning, community design review, transportation and other key city departments. As a result, Gay Street was transformed into a two-way street with trees in the median, safer bike and pedestrian areas, and a mix of retail and housing on either side. The initiative also helped make Columbus the first city in Ohio to use a Health Impact Assessment to evaluate the health impacts of land use decisions. Columbus Complete Streets Policy mandates that all street construction, reconstruction, and repair projects accommodate all users of the road including pedestrians, bicyclists, motorized vehicles, transit vehicles and users, and motorists of all ages and abilities.

**Example: Safe Sidewalks and Safe Routes to School Holladay City, Utah**
Holladay City incorporated the Safe Sidewalks program into its city plan in 2003. The program funded the construction of sidewalks in high pedestrian traffic areas, focusing on high priority zones such as neighborhood schools. Cottonwood Elementary was one of the local elementary schools involved in Safe Sidewalks initiative that also incorporated the Safe Routes to School (SRTS) program. With Safe Sidewalks, parents and school staff identified and mapped the walking routes they deemed less safe and worked with engineers employed by the initiative to improve them. Students participated in SRTS activities including annual Walk to School Days, bicycle safety rodeos, and an ongoing safety patrol through which sixth graders help direct traffic around the school during pick-up and drop-off times.
4. **Housing Choice to Build Opportunity** A safe and affordable housing system for inclusive communities ensures that the conditions within and surrounding houses are healthy, and that housing is accessible to people from diverse backgrounds and circumstances. Such a system is created through the engagement of multiple sectors implementing a range of community-informed strategies. In the U.S. market economy, this system advances policies and practices that safeguard affordability, stability, and inclusion and ensures that renters, homeowners, and businesses are not discriminated against, displaced, and/or segregated by bias and market-driven housing activities. This includes, for example, ensuring adherence to fair lending in housing and protections,\(^\text{159}\) preventing predatory lending, and reducing mortgage default risk. This system maximizes the existence of the Affirmatively Furthering Fair Housing ruling to improve immediate conditions in low opportunity neighborhoods so that residents can remain in their neighborhoods and experience improvements in housing or move into long-standing segregated neighborhoods.\(^\text{160,161,162}\) This system works toward decreases in residential segregation such as through preserving and expanding mixed-income, mixed-use, inclusively owned and rental housing connected to schools, public transit, job and retail centers, parks and open space, and other amenities\(^\text{163,164}\) through provision of debt and equity capital to housing and community development organizations and public-private-nonprofit partnerships.\(^\text{165}\) It also ensures “development without displacement” by controlling rental market inflation, incentivizing development of affordable housing, increasing housing density,\(^\text{166}\) and, increasing community ownership of land,\(^\text{167}\) for example and investing in neighborhoods cohesively to protect existing social networks, neighborhood identities, and cultural.

**Example: Green and Healthy Homes through People United for Sustainable Housing Buffalo, New York\(^\text{168}\)**

People United for Sustainable Housing (PUSH) Buffalo is a local membership-based community organization working to make affordable housing available on the West Side of Buffalo. Many of the residents that PUSH Buffalo works with are immigrants and individuals with low household incomes living in a cold northern climate. PUSH Buffalo’s work brings together residents and a variety of organizations focused on clean energy economies, economic and racial justice, and arts and culture to take direct action to bring resources into Buffalo’s growing community. This work has resulted in the organization’s successful establishment of its first rental property created to provide affordable housing and local jobs. Within their affordable housing work, PUSH seeks funding to develop properties within the Green Development Zone, a 25-square block area on Buffalo’s west side where PUSH Buffalo targets their efforts to grow a new community economy. Homes and apartments built within the Green Development Zone are high quality, permanently affordable, and offer environmentally sustainable shelter. The idea is that affordability and sustainability are essential to one another in a climate where heating bills take up a significant portion of the residents’ housing costs. In 2011, PUSH transformed a house into the Niagara region’s first NetZero Energy house, where the home produces all of the energy that it consumes. It generates hot water and electricity from solar panels, and heat from a geothermal system installed in the vacant lot next door.

**Example: Safe and Sustainable Housing for American Indians Arizona and Montana\(^\text{169}\)**

After learning about the death of American Indian elders due to inadequate shelter and freezing temperatures, Robert Young created the Red Feather Development Group (RFDG) to bring sustainable and affordable housing to Tribal Lands. RFDG concurrently leads two separate initiatives, one of which is focused on bringing solar energy to tribal lands and the other on building sustainable housing. Both of these initiatives seek to identify solutions that are environmentally, culturally, and economically sustainable. They work in collaboration with the communities they serve, fostering mutual learning and cooperation. Through their sustainable housing initiative, RFDG has worked with community members to build their own sustainable
homes out of recycled materials in a way that reduces energy consumption and returns the savings to the tribal economic base. Their solar energy work with the Hopi and Navajo Nations helps to reduce coal mining on Tribal Lands and to increase the understanding and use of solar and renewable energy as part of healthier housing. At the foundation of RFDG’s community development work is an approach that brings together the tribal community, non-indigenous volunteers and community based organizations to bridge the gap between historically divided interests.

5. **Sustainable Food System** A food system influences the accessibility and affordability of healthy food in communities and the sustainability of the natural environment. Elements of a healthy and equitable food system include access to healthy food in retail settings and institutions; infrastructure and programs that foster local, sustainable food production; safe and fair working environments for food system workers; and limits to the marketing of energy-dense, nutrient-poor foods. A sustainable food system not only increases access to healthy foods and fosters better eating habits but also strengthens the economy and social fabric of neighborhoods. For decades, many low-income urban and rural households, particularly low-income communities of color, have had challenges purchasing healthy food where they live. This dearth of healthy food retail options in combination with limited household purchasing power means many low income families struggle to put sufficient healthy food on the table. The U.S. food system is a large sector in the economy, employing millions in positions ranging from agricultural production and processing to distribution and retail. Many of these workers are in low-wage jobs and many face significant occupational hazards. These multiple impacts make the food system an area ripe for improvement. A sustainable food system advances the triple bottom line of economic development, environmental sustainability and improved health. It also involves community partners in assessment, strategy prioritization, and planning to ensure that improvements to community food systems meet the needs of community residents and build demand for healthier food.

**Example: Bridging Rural Farm Policy with Urban Food Access Louisville, Kentucky**

For Community Farm Alliance (CFA), the health and prosperity of Kentucky’s urban residents is inextricably linked to a thriving rural economy. Using a blend of economic development, youth development, and community development principals, CFA promotes sales and consumption of food grown by rural family farmers. The group aims to increase access to healthy, affordable food throughout Kentucky, including the state’s urban, African American communities. The organization’s state-level policy advocacy targets institutional and financial levers to create a more favorable market for rural farmers. For instance, CFA is working to create incentives for neighborhood corner stores to carry Kentucky-grown produce and has helped launched a number of programs and local farmers’ markets to improve urban food availability. Two CFA farmers markets located in Louisville communities that have a low-average household income serve about 8,000 people yearly. These strategies have enabled CFA members to pass or defeat two dozen pieces of legislation in support of Kentucky’s farmers and the rural and urban communities that depend on them. Through this mission, CFA was successful in shepherding “preferential purchasing” legislation which mandates that all state government institutions purchase from local growers whenever possible.

**Example: Farmworkers’ Union improves Healthy Food Access and Physical Activity Opportunities Woodburn, Oregon**

With over 5,300 members, more than 95% of whom are Mexican and Central American, Pineros Y Campesinos Unidos Del Noroeste (PCUN) has empowered farmworkers in Oregon to influence the way food is grown and distributed, and improve the safety of working and housing conditions. Many of PCUN’s policy successes have simultaneously addressed farmworker health
and food access. PCUN worked intensively to curb pesticide spraying, developed policies to ensure that workers know what chemicals they are using, and convinced growers to utilize organic farming when feasible. Through relationships with local churches, markets, and Willamette University, farmers have helped distribute and market union-label produce grown under humane working conditions. This has increased local access to fresh fruits and vegetables: PCUN sold 6 tons of organic produce grown by small farmers to “mom and pop” shops in Latino communities, while promoting workers’ rights through the union certification labels. PCUN has built a labor-community partnership which has extended beyond the immigrant workforce into the lives of families through its support of youth organizing for better educational opportunities, women working toward economic development, and improved housing conditions for immigrants. Monthly meetings offer a forum to discuss joint concerns including health issues such as diabetes. PCUN has grown into a vibrant and vocal vehicle for Latino farmworkers to speak up about basic issues such as access to fresh water and restrooms in the field and to continue to put issues like how food is grown, where it comes from, and who has access to it on the public agenda.

6. **Safe Communities through Preventing Violence** Safe Communities is a system in which government leadership, community members, public sectors and other stakeholders come together to improve community safety through planning, implementation, coordination, and measurement and evaluation of multi-sector efforts that span a continuum of prevention, intervention, enforcement and reentry efforts. Significantly, strategies recognize and address the underlying contributors to violence, known as risk and resilience factors, including those at the community and societal level, such as decreasing community deterioration, concentrated disadvantage and weapons and increasing social connections, norms that support alternatives to violence and cultural and artistic opportunities. The selected processes, governance and priorities must reflect and be inclusive of people and communities most impacted by violence. It’s also critical that law enforcement agencies embrace procedural justice and 21st Century Policing strategies and establish trust with the communities they serve.

**Example: Blueprint for Action Minneapolis, MN**

In 2005, the city of Minneapolis adopted a new approach of addressing violence against youth as a public health issue and created a multi-faceted, long-term solution to address this problem. The effort was in response to the tragic increase in the number of homicides from 2003-2006, during which 80 youth and young adults between the ages of 15 and 24 lost their lives. Through the Blueprint for Action, the city developed various strategies from mentoring to employment, mapping out plans for the multiple resources in Minneapolis and organizing them into a coordinated framework. Resources included: Youth are Here Buses, a transportation service for youth to avoid gang territory and travel safely from community-based organizations to parks and libraries; Step Up, a city-operated employment program where youth ages 14-18 were placed in non-profit organizations; and rites-of-passage programs for American Indian boys, drawing on restorative justice principles and using drum circles to align the program with their traditions and culture. Within two years, focus neighborhoods saw a 40% decrease in juvenile crime rates while arrest rates decreased. The city then expanded their Blueprint to Action framework from 5 to 22 neighborhoods, resulting in a 60% reduction in juvenile homicides and 46% of Step Up participants obtaining year-round employment. The Minneapolis Blueprint for Action embodied a values change within the community, where their strategies are a mix of evidence-based practices and suggestions from residents, allowing the city to be responsive to the needs of their communities.
7. **Cradle to Community** This comprehensive system 1) fosters positive early childhood and youth development, 2) invigorates lifelong learning, 3) dismantles the cradle to prison pipeline, and 4) establishes restorative and inspiring school practices and strengthens continuity between learning and employment. Early in the ‘pipeline,’ the system ensures universal access to quality early childhood education for a strong start. Throughout, it looks to address the underlying reasons for inequities in academic outcomes, including, for example, school funding formulas. It also focuses on keeping young people in school, for example by establishing equity oriented school cultures with restorative justice practices for closing achievement gaps and managing school discipline (e.g., attract and retain high quality teachers, create cultures of engaged parents, ensure buildings are inspiring spaces); establishing linked learning practices that align school course work with existing and emerging careers and/or offer school credit for related entry level on the job training and improving college and career readiness by ensuring that advanced placement courses are offered at low-income schools; creating comprehensive dropout prevention and recovery systems; and reforming school discipline policies (e.g., eliminate out-of-school suspension for pre-K-3rd grade, create public reporting system for discipline data, mandate anti-racism training) and sentencing practices through specialized dockets for mental health and drug offenses. Ultimately, this system supports healthy early childhood and youth development and learning so that all young people have the opportunity to become engaged and contributing members of society.

**Example: Success Courts Kansas City, KS**

The principal of Arrow Head Middle School in Kansas City heard parental concerns about the number of suspensions being handed out at schools within the district. In one year alone, her school had 4,000 in- and out-of-school suspensions. Staff and parents knew that every suspension brings students closer to dropping out and feared they would increase the likelihood of ending up in the criminal justice system. Arrowhead Middle School decided to take a new approach, focusing on the student, rather than the infraction itself to curb suspensions. Staff was trained on how to deal with the trauma, hunger, and homelessness many of the students were facing outside of school. Students facing such challenges outside of school were sent to a designated class where they received support and extra attention. Meanwhile, the school district hired a specialist in education, gangs, and behavior to improve their student conduct programs and reduce suspensions. In 2012, Kansas City School District developed Success Courts where every Wednesday, 15-20 students gather in a mock court session to discuss their challenges related to growing up in the urban core. The Success Courts are run by Jackson County Circuit Court Judge Kenneth Garrett, who grew up and went to school in Kansas City. Since the implementation of Success Courts, the school district has seen a 13.5% increase in attendance and an increase in students receiving passing grades. These efforts place kids at the center and focus on changing the school culture to be supportive of student success.

**Example: Purpose Built Communities Atlanta, GA**

In 2009, Purpose Built Communities (PBC) began their work in the East Lake Area near Atlanta, Georgia, where neighborhoods were experiencing substandard schools, some of the worst crime rates in the country, widespread drug use, and extreme poverty. In response, PBC developed a holistic approach to revitalize the East Lake Area that included opening a charter school with rigorous academics, new mixed-income housing, building a YMCA, and bringing in a variety of resources for the community’s youth. These resources included: before and after school programs centered around intellectual, physical, social and emotional growth; Creating Responsible Education and Working (CREW) teen programs which help teenagers complete...
high school and plan for higher education and careers; The Resident and Community Support Program (RCSP), focused on building a sense of community, creating economic stability, career development, financial literacy, and community partnerships; and The First Tee of East Lake, a golf and life skills program. Since the implementation of Purpose Built Communities, Charles R. Drew Charter School has seen an improvement in school performance. Prior to 2009, only 5% of fifth graders in the neighborhood met state math standards. Since PBC’s implementation, students at Drew are excelling, with 98% of the students in grades 3-8 meeting or surpassing state standards. With the great success of Purpose Built Communities in Atlanta, additional cities are adopting the model to end intergenerational poverty and bring equitable opportunities to communities.

**Example: Children’s Services Council, Palm Beach Count, FL**
The Children’s Services Council (CSC) of Palm Beach County, funded through a countywide property tax, focuses on building a comprehensive prevention and early-intervention system that keeps young children healthy, safe and strong. CSC’s work includes a universal screening process for all births in Palm Beach County to identify children and families who need additional services and supports. Its work also includes place-based initiatives, like BRIDGES – a family and community engagement initiative with 10 locations in neighborhoods with low-average household incomes throughout the county. Compared to statewide averages, Palm Beach County has fewer low birthweight and preterm babies, lower rates of verified reports of abuse and neglect. Additionally, children receiving services funded by CSC are more likely to be ready for school. Furthermore, recognizing the relationship between early childhood and community outcomes, CSC is a leader in the county’s Birth to 22: United for Brighter Futures initiative, which developed a “staircase model” with the understanding that building strong foundations in early childhood is a crucial part of building safe and strong communities.

8. **Developing a Workforce for the 21st Century** Through the interplay of advocacy, training and education, and social and economic supports, this system ensures that local people are prepared for and connected to quality employment that enables working individuals and families to achieve financial stability. This system works to be inclusive of all workers - including women, people of color, returning citizens, and young people. The system is forward looking, identifying living wage employment tracks and opportunities of the future and that serve communities most impacted by the production of inequities. It then pro-actively readies those who have been impacted by this production, for successful employment in these jobs. This includes, for example, implementing regional, industry-focused approaches that link workforce and economic development in low-income communities and communities of color to create a pipeline between job training and placement, strengthen an industry’s workforce, improve quality of jobs, and increase regional economic vitality. Linked with the Cradle to Community, this system includes attention to developing a workforce that is more inclusive and has more diverse leadership in public policy, healthcare, public health, education, and STEM fields. It strengthens the role of community colleges as bridges to quality careers through relevant training, completion of degrees, credentialing opportunities, and linkages to employment, with comprehensive support for students’ economic and social needs. It also strengthens workforce development efforts in Tribal Nations, through streamlining property acquisition and leasing of Indian lands, business and procurement technical assistance, planning and feasibility study funding, financing (e.g., loans, loan guarantees, equity investments, surety bonding, bond financing) and export assistance.

**Example: Green Jobs Central Oklahoma** Oklahoma City, OK
Green Jobs Central Oklahoma (GJCO) recognized that individuals living below or near the poverty level were having a difficult time finding sustainable, full-time employment since the
economic downturn of the 2000s. Through a partnership with various community organizations, GJCO aims to create pathways out of poverty for individuals that are unemployed or underemployed, or have a low household income. Their population of focus includes veterans, individuals with a criminal background, and others with barriers to sustained employment. Funded by the U.S. Department of Labor, GJCO offers a variety of free services from career readiness activities and skills training to strong relationships with employer partners to ensure job access. Once participants complete the Training Opportunity Preparation Services (TOPS), participants choose to train in one of three areas: recycling, wind energy, or green transportation. The project specifically targets the economically depressed community of northeast Oklahoma City offering green employment opportunities to people with barriers to employment with the goal of increasing individual earnings as well as the overall per capita income in the community.

**Example: Veteran’s Sustainable Agricultural Training** [Escondido, CA]

Iraq combat veteran Sargent Colin Archipely and his wife, Karen Archipely founded Archi’s Acres in 2006 to provide business ownership opportunities for veterans while creating a viable, sustainable, and organic produce farming business. Veteran’s Sustainable Agriculture Training (VSAT) provides agricultural training to veterans to support their agricultural enterprises and provide healing through farming. Through VSAT, veterans learn about Archipely’s highly efficient methods that maximize available natural resources and capitalize on local sales distribution channels. The idea behind the training program is to help comrades in the military move into civilian careers in agriculture and business ownership. Archi’s Acres has trained more than 300 people since 2009. Their graduates have gone on to be farm owners and workers, soil-testing pioneers, and restaurant and food company owners. In 2014, the Archipely’s were recognized by the “Champions of Change: Veteran Entrepreneurs” program in Washington, D.C. for their empowering and inspiring work.

9. **Economic Engines in Service of Communities** This system drives economic and job growth in areas that fuel the economy for people and communities that have been left behind. It is fundamentally about creating economic opportunity for the people and communities who have had the least access to it while also protecting people and the planet, and improving other DOH. One aspect of this is a focus on local, such as local procurement, especially among anchor institutions and organizations, to ensure that local businesses – especially those that are owned by people of color and women – are prioritized to fill local needs; hiring local people for local jobs in the government, anchor institutions, and initiatives to improve community infrastructure; enhancing local people’s – especially people of color and women – interest in entrepreneurship and capacity to start a business; expanding access to funding and financial capacity of small and local businesses, especially those that are owned by people of color and women; equipping communities to identify local assets and opportunities for economic growth, so they may plan for and drive local economic growth based on community assets; and grow commercial corridors in neighborhoods to support local business, meet the needs of local residents, ensure resources remain in communities, and drive local growth. The system will also need to support local success with broader strategies including instituting financial incentives for investment, including capital investment, in sectors and projects that fuel the economy while improving the DOH, such as a green energy, affordable housing, healthy food, or sustainable development; protecting against unfair and discriminatory

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*You can’t talk about housing affordability just on supply side. You have to increase income-generating capability in neighborhood.*

-Jeff Taebel

*We think that health equity is a manifestation of economic equity.*

– Cecilia Estolano and employees
banking and finance practices, and instating complete (i.e. unlocking) tribal control over tribal lands to allow for economic development.

**Example: Safe and Sound** *Hillsborough County, FL*

The Hillsborough County Community Violence Prevention Collaborative (VPC or Collaborative) was created in the summer of 2013 to shift safety policy from a public safety to a public health model and align community and professional stakeholders to develop a comprehensive prevention plan. The Collaborative features a Leadership Council of local elected policymakers and diverse community stakeholder subcommittees that focus on healthcare, education, community-based organizations, faith groups, and public safety/judiciary. While working towards their goal of improving conditions in neighborhoods most impacted by violence, they formed a partnership with the Corporation to Develop Communities of Tampa to alleviate poverty and physical deterioration. They created a business plan to fuel economic development based on drivers including: competitive sites and redevelopment, technology and innovation, competitive positioning, entrepreneurial and small business ecosystem and more. They are expanding their partnerships and message to involve the business sector in their violence prevention work by demonstrating how preventing violence is also good for business.

**Example: Economic Opportunity Strategy** *New Orleans, LA*

Under the Mayor’s leadership, the Economic Opportunity Strategy was launched in 2014 to implement a comprehensive strategy to create new business and job opportunities in New Orleans. In a city where 52% of working aged, African American men are unemployed, the strategy prioritized “equity as a growth strategy”. The strategy connects local training providers, social service agencies and community advocacy organizations to increase New Orleans’s economic resilience. More specifically, the strategy includes: collaborating with local anchor institutions to expand opportunities to job seekers and businesses; providing case management, foundational skills training and supportive services; connecting businesses to contracting opportunities; creating a worker-owned cooperative for those seeking employment; and customized job training to prepare job seekers. Recently, the New Orleans City Council put “Hire NOLA” into law requiring companies working under city contracts of more than $150,000 to hire skilled residents of New Orleans. The equity component in particular will expand the employee base for those looking to relocate or build their businesses in New Orleans and support the emergence of small businesses owned by and employing people of color.

10. **Community Centered Health System** A Community-Centered Health System marshals the resources and influence of healthcare delivery organizations and healthcare payers to work in partnership with governmental public health and community partners to maximize the prevention of illness and injury by focusing on the community factors that shape health outcomes. In a Community-Centered Health System, healthcare organizations and health insurers both acknowledge that factors outside the healthcare system significantly affect patient health outcomes and actively participate in improving them. This system operates from a shared understanding that quality physical and mental health treatment are vital to health outcomes, but they do not impact health outcomes as much as the social, physical, and economic environments in communities – sparking the need for community-wide strategies. In addition to providing timely, high-quality care rooted in the understanding of a patient’s personal and community context, a Community-Centered Health System connects people to non-medical supports and services necessary to support health, and most importantly, catalyzes community-wide solutions to address the community factors that shape health outcomes. This is particularly important for vulnerable and disenfranchised populations who are at greater risk for poor health outcomes driven by these community factors. By strengthening community resilience factors, a Community-Centered Health System both improves
recovery/disease management for those who are sick or injured and prevents illness and injury. A Community-Centered Health System expands from a primary focus on sick care to include prevention and from a focus only on individual patients to a focus on community conditions driving inequitable patterns of illness and injury – truly transforming POPULATION health to achieve health equity.

**Example: Cincinnati Children’s Hospital Cincinnati, OH**

Cincinnati Children’s Hospital launched the Community Health Initiative (CHI) in 2011 to improve the health of all of the county's children and to provide treatment to those who are sick. In one effort, the CHI staff mapped the home neighborhoods of children admitted to the hospital for asthma and found huge variations in admission rates across the county. There were about 7 neighborhoods with very high hospital admission rates, compared to a dozen neighborhoods that did not have any admissions. The average incomes in the high admission neighborhoods were closer to poverty than those in the low admission neighborhoods. CHI sought to understand the environmental differences between these neighborhoods, given that much of the risk for asthma is environmentally determined. A home visit to a particular child who had been admitted to the hospital four times over the span of five months revealed many asthma triggers in the home due to poor housing quality. In response, Cincinnati Children’s Hospital established a relationship with Legal Aid and the Cincinnati Health Department. The Health Department conducts home inspections and provides landlords with information about needed repairs for families with children suffering from asthma. Legal Aid is brought in when landlords don’t comply with needed repairs. An average of 700 cases per year is referred to legal aid. The actions have led to specific building improvements, and in one case buildings were acquired by a non-profit housing developer, which was able to leverage a $29 million grant from HUD to bring the buildings to code. Cincinnati Children’s Hospital is applying similar approaches to preventing injuries among children identified through analysis of patient data.

**Example: Lei Hīʻpū ʻo Kalihi Valley Honolulu, HI**

Kalihi Valley is a densely populated, low-income community in Honolulu, Hawaii. The valley lacks sufficient sidewalks, bike lanes and public green space to support regular physical activity for its residents. Kokua Kalihi Valley Comprehensive Family Services (KKV), a community health center, obtained a 20 year lease on a 100 acre parcel in Kalihi Valley. In partnership with local organizations and agencies including the City of Honolulu, a local bike shop, leaders from a public housing development, and other community-based organizations, KKV has transformed the parcel of land into a nature park with hiking trails, walking and biking paths, community food production, and a cultural learning center. The park has 10 acres of community gardens, which provide space for people to be physically active and grow healthy foods, as well as gather to build community and social supports. The opportunities for safe physical activity and healthy food access that the park provides will support the health of those living in the KKV community.
Multi-sector System Diagrams:

These ten multi-sector systems can counter the production of health inequities and promote health and well-being at the community level. Building on existing efforts and momentum, ever more effective efforts will be developed and advanced.

Gear diagrams:
- The diagram on page 61 depicts the multi-sector systems as gears. It is a metaphor for these systems producing health equity.
- The diagram on page 62 depicts the multi-sector systems as gears and includes gears for each of the 14 sectors. This reflects the importance of these sectors in the production of health equity.
  - orange gears are the multi-sector systems
  - blue gears are sectors

COH Action Framework diagrams: The diagrams in Appendix E reflect the specific multi-sector systems and key sectors mapped onto the COH Action Framework for each prioritized DOH. These diagrams reflect 1) that the multi-sector systems address multiple DOH and 2) the key sectors for each DOH that are relevant to achieving health equity.
MULTI-SECTOR SYSTEMS TO PRODUCE HEALTH EQUITY

- Building a Cradle to Career Pipeline
- Thriving Communities
- Housing Choice to Build Opportunity
- Developing a Workforce for the 21st Century
- Community-Centered Health Systems
- Health Equity by Design
- Creating Economic Engines in Service to Community
- Active Transportation
- Sustainable Food System
- Safe Communities
MULTI-SECTOR SYSTEMS AND SECTORS

- Building a Cradle to Career Pipeline
- Economic Development
- Education
- Active Transportation
- Housing
- Healthcare
- Business/Industry
- Transportation
- Developing a Workforce for the 21st Century
- Sustainable Food System
- Banking Finances
- Public Health
- Workforce Development
- Land Use & Management
- Agriculture
- Community-Centered Health Systems
- Thriving Communities
- Labor
- Choosing to Build Opportunity
- Community Equity by Design
- Health, Social Services, Justice
- Safe Communities
“P” is for Progress: Toward a System of Health Equity

Multi-sector systems have a valuable role to play in producing health equity. Each system is important and can counter the production of inequities. Together, the multi-sector systems for producing health equity are comprehensive in nature, as is needed to address the complexity of health inequities. While each one has enormous potential for transforming health equity outcomes, the whole can be greater than the sum of its parts.

Across the multi-sector systems, the need for an overarching approach emerged: the need for a system to drive health equity. A System of Health Equity is a way of organizing and structuring relationships, innovation, learning, and advocacy for coherent and interrelated practices – within the foundation, government, private sector and community – to attain health equity across the population. This system can track and account for the overarching findings that emerged and will help ensure all efforts, including those to build and strengthen the multi-sector systems, will advance health equity. This system provides a mechanism to employ rigor through intentional feedback loops and being intentional about measuring change, which promote systems change.195

Essential Elements for a System of Health Equity:

1. **Purpose: Intentionality for Health Equity**
   a) Laser focus on health equity
   b) Intentionally addresses discrimination, structural racism and bias
   c) Acknowledges the systematic production of inequities by accounting for community trauma
   d) Fosters connections

2. **People: Leadership and Engagement**
   a) Shared vision and leadership
   b) Community voice, participation and leadership
   c) Multi-sector engagement

3. **Practice: Methodology and Capacity**
   a) Tools, approaches and methodologies
   b) Training and capacity building

4. **Platform: Infrastructure to Support Success**
   a) Communications/make the case
   b) Financing and funding equity
   c) Metrics and measurement

1. **Purpose: Intentionality for Health Equity**
   
   a) **Laser focus on health equity**: Without explicit attention to improving health outcomes for communities with low-average household incomes and communities of color, the outcomes cannot be maximized. According to the CDC, “[Policy improvements, systems improvements, and environmental improvements] have great potential to prevent and reduce health inequities, affect a large portion of the population, and can be leveraged to address root causes, ensuring the greatest possible health impact is achieved over time. However, without careful design and implementation such interventions may inadvertently widen health inequities.”196 This means that for each action – policy, practice, procedure – these questions must be asked: Is this producing health equity? How will this achieve health equity? How is this appropriately accounting for culture, gender, power and other important considerations? Will this counter the production of health inequities? Within multi-sector systems and across sectors, these...
questions can be asked. It’s also critical that each sector looks at its own historical role in producing inequities and how it can play a role in producing more equitable outcomes moving forward. A System of Health Equity can provide tools, checklists or discussion guides to prompt and support exploration of these questions.

A laser focus on health equity, or health equity lens, builds on a Health in All Policies\(^5\) approach, making explicit the notion of *health equity in all policies, practices, procedures, systems and sectors*. As multi-sector systems are developed (e.g. Cradle to Community), it’s critical that a laser focus on health equity be applied to ensure that it’s benefitting those who most need it and weighing opportunities to maximize outcome. For example, as the multi-sector systems are implemented, it’s critical that this is done in a way that is responsive to community voice, reflective of community culture and account for the risk of displacement through development. As another example, as active transportation strategies are developed and implemented, exploration about intersections with community safety and affordable housing can begin to unearth strategies that build new multi-sector opportunities to foster equitable health outcomes—not just one issue at a time but for the population group, or community, as a whole.

**b) Intentionally addresses discrimination, structural racism and bias.** To reverse the production of inequities, it’s critical to examine how discrimination, structural racism and bias explicitly play out in policies and practices and within sectors and systems. Discrimination is a practice based on values and norms that reinforces the benefits of privilege. Structural racism and/or structural discrimination are similarly defined as the macro-level systems, social forces, ideologies, and processes that interact and reinforce inequities involving race/ethnicity, immigrant or socio-economic status, gender, disability or age – through which *health* inequities manifest.\(^{197,198}\) It is these structural values and practices that persist across multiple generations through a diverse set of actors – including governmental and non-governmental entities, cultural groups and individuals – maintaining the norms and conditions that accelerate the production of health inequities.\(^{199,200}\) On the other hand bias occurs at the individual decision level, whether it is implicit (unconscious) or explicit (with awareness), bias enables discrimination - yet has greater mutability through approaches that are aimed at interrupting and informing norms at the organizational or community level.\(^{201}\) In order to change macro-level structures, intentionally targeting practices of bias across multiple sectors can create momentum of awareness and explicit equity-oriented decision making. For example, organizations and sectors can advance health equity by performing internal reviews of their policies and practices to identify “blind spots” which may be perpetuating differences in the treatment and outcomes of the communities they serve. At its core, this is about changing the culture and norms within sectors and across systems.

**c) Acknowledges the systematic production of inequities by accounting for community trauma: A framework for trauma, *Adverse Community Experiences and Resilience: A Framework for Addressing and Preventing Community-Level Trauma*,\(^{202}\) underscores the need to address community trauma as an integral strategy for achieving health equity. Trauma is pervasive and has a significant impact on

\(^5\) The term Health in All Policies (HiAP) was first used in Europe during the Finnish Presidency of the European Union (EU), in 2006, with the aim of collaborating across sectors to achieve common goals. HiAP is a strategy which aims to include health considerations in policy making across different sectors that influence health, such as transportation, agriculture, land use, housing, public safety, and education. HiAP re-affirms public health’s essential role in addressing policy and structural factors affecting health and has been promoted as an opportunity for the public health sector to engage a broader array of partners. [Source: http://en.wikipedia.org/wiki/Health_in_All_Policies; accessed 2/6/2014].

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**It’s a difficult issue, but there is a benefit to looking at health disparities with a racial lens.**

-Laura Choi
development, health and well-being. Trauma-informed care is becoming a standard of care in a growing number of places. The predominant approach to dealing with trauma has been screening and treatment for individuals. However, there is emerging evidence that trauma manifests at the community-level. For example, in high-violence neighborhoods, the idea that whole communities are traumatized is a widespread belief. A community trauma framework postulates that community trauma is produced both from experiencing violence and experiencing structural violence. Structural violence refers to what individuals, families and communities experience from the economic and social structure, social institutions, and relationships of power, privilege and inequality that may harm people and communities by preventing them from meeting their basic needs. This is consistent with what was described earlier in the production of inequities. Despite the understanding of the widespread nature of trauma, the emergence of understanding trauma beyond an individual level, and an epidemic of trauma at the population level, the predominant focus at addressing trauma remains at the individual level. Community trauma is not just the aggregate of individuals in a neighborhood who have experienced trauma. There are manifestations, or symptoms, of community-level trauma. The symptoms are present in the socio-cultural environment, the physical/built environment and the economic environment. Because trauma serves as a barrier to effective solutions to promote health, safety and well-being, it’s critical that community trauma is addressed in conjunction with advancing systems.

A key premise behind trauma informed care is the concept of recognizing previous trauma in order to move past it. Addressing community trauma includes acknowledging the legacy and impact of historical and current practices and policies that have produced inequities as a first step toward healing and moving forward with solutions.

d) Fosters connections between people, systems, issues and opportunities: The System of Health Equity encourages mastery at fostering connections between people, systems, issues and opportunities. To maximize health equity outcomes, new connections become vital conduits for information, ideas, and emergent solutions. These connections can be very tangible, such as linking two program areas or grantees together or conceptual as in exploring the connections between issues that haven’t typically been linked in order to explore root problems and shared solutions. Paying attention to connections and interdependence is a critical component of systems change.

2. People: Leadership and Engagement

a) Shared vision and leadership: A System of Health Equity – and, indeed, health equity itself – will not happen by accident. A shared vision can be an overarching frame for multiple partners to rally around and can galvanize the imagination of a nation. Strong leadership can bring key partners and diverse elements of a growing movement together to advance a shared vision and promulgate the tools and standards needed to hold others accountable. For a System of Health Equity, it’s worth looking at the needed leadership to advance a national movement as well as what’s needed within the health sector and at state, regional and local levels to advance a coherent system in support of health equity. For a system of Health Equity, it’s important to look at the specific leadership needs and roles of the health sector – healthcare and public health.

One of the hardest parts of a system is getting it set up. If leaders and actors in diverse parts of the system come to embrace the vision and principles of health equity, the system is more likely to be effective in sparking innovation. A shared vision creates the context for decision-making and provides a shared “operating system” for people within the System of Health Equity. For those uncomfortable with health equity, leadership within the System of Health Equity will play an instrumental role in understanding barriers, determining opportunities for building bridges and reaching new audiences, and assessing where collaborations may or may not yield benefits.
b) Community voice, participation and leadership: A System of Health Equity moves from community as recipient to community at “the center of efforts” and it recognizes that health equity outcomes are not produced by formal institutions alone. Community engagement, participation and leadership represent key elements in a health equity system as voices of those traditionally under-represented in leadership and decision-making, including youth, become elevated as stewards of the system. The System of Health Equity makes training, capacity building and frameworks available to support engagement, participation and leadership by community members. A useful function of the health equity system is to blend community wisdom with technical expertise and use community experience to interpret metrics.

c) Multi-sector engagement: The System of Health Equity fundamentally acknowledges the importance of multi-sector engagement and collaboration—a very specific form of fostering connections. It further considers what skills are needed to engage different sectors and systems in the work of accelerating health equity and stopping the production of inequities. The System of Health Equity will encourage and catalyze these multi-sector engagements through a variety of tools including reframing of issues, convening and exploring win-wins. While there are many, one particular opportunity for the System of Health Equity is to identify and elevate multi-sector practices leading to health equity that could be fostered elsewhere. Searching for models that are scalable, replicable and then promoting those and providing supports for further cross system integration will help the System of Health Equity build bridges between sectors. While multi-sector engagement is increasingly common, this doesn’t mean the skill and know-how to build and sustain multi-sector participation is prevalent. Tools, frameworks and facilitation can increase likelihood of success for multi-sector participation. The System of Health Equity can serve as a hub for some of this.

3. Practice: Methodology and Capacity

a) Tools, approaches and methodologies: Federal agencies and foundations have supported groups such as Prevention Institute, the National Collaborative for Health Equity, PolicyLink and others to develop tools/frameworks, approaches and methodologies for making health equity work practical and actionable. To support effective efforts, the System of Health Equity can get these tools and frameworks out to people, make them available and inform the field of new developments that further advance the practice of health equity. These tools, approaches and methodologies can become the basis for funding proposals, training, technical assistance and capacity building and the subject for communication and making the case. Fostering development of new tools and promulgating effective methods will help the System of Health Equity remain vibrant while supporting practitioners.

b) Training and capacity building: The CDC’s Practitioner’s Guide for Achieving Health Equity notes the importance of building organizational capacity to advance health equity, including establishing an institutional commitment, aligning funding decisions with a commitment to health equity, being deliberate in recruiting and building staff skills, tracking and capturing health equity efforts in training and performance plans, integrating health equity into services and resources, and establishing multi-sector collaborations and relationships with diverse communities. These are critical capacities that a System of Health Equity can support at the local level. More broadly, there is a need for training and capacity building across systems and sectors to collaborate with each other, to advance comprehensive approaches, to actively engage in multi-sector systems to produce health equity and to apply a health equity lens. This is
not only about skill-building but about shifting the culture and norms within and across sectors and systems. A System of Health Equity will advance multiple levels of training and capacity building for “early adopters,” leaders and managers within the system, and for people who serve as liaisons across systems, for both programmatic and administrative staff. A key aim of the training and capacity building from the standpoint of a System of Health Equity is to help define it for stakeholders, help people to understand their role and contribution to the system and aid them in seeing how this system helps them better achieve their purpose. One important area for training and capacity building will involve issues such as workforce development, and the pipeline for generating new leadership and energy within the System of Health Equity.

4. Platform: Infrastructure to Support Success

a) Communications/make the case: It’s critical to make the case for an emphasis on health equity, for non-siloed systems and for community approaches. Effective communication can help build and sustain health equity efforts. Informed by effective framing, successful communication via channels such as the media, social media, public officials, and others in the public sphere can convey positive messages about achieving health equity and foster buy-in into prevention strategies and priorities. Related to training and capacity building above, “making the case”, is also about building the skills of participants within the health equity system to feel comfortable talking about health equity in relationship to other key values and developing the language to integrate health equity aims within diverse sectors, particularly those who don’t particularly embrace their role in health equity, as of yet. An overall communications strategy takes into account multiple audiences and channels and diversifies accordingly accounting for the need for published literature and a media strategy, for example. A communications strategy advances all of the other elements of a System of Health Equity and supports an equitable Culture of Health.

b) Financing and funding equity: Financing must be a key component of the system that will interrupt and reduce the ongoing production of inequity, ameliorate the impacts, and accelerate and sustain the production of health equity. Like other components, this component of the system must “think and operate at the edge of the box,” building in renewed and bold commitment to innovation and outcome to meet the need and demand, fund population health and health equity, and fulfill our nation’s potential. One premise of a System of Health Equity is that issues and sectors are interconnected. But, funding for health—particularly from the public sector—is often siloed. There is a need to diversify resource and financial investments and incentives across multiple sectors, removing funding silos and building partnerships for long-term investments in community change. The financing of multi-sector systems requires greater integration of funding silos between sectors to create a larger pool of funding sources that can be flexibly and efficiently woven together, through for example, alignment of regulations and timelines. Additional financing tools are also needed, including: 1) incentives and rewards for cross-sector collaboration; 2) new sources of capital such as tax credits and socially motivated investments by foundations and investors; and, 3) tools to finance the operations and innovation of organizations and partnerships, rather than projects and programs alone. Financing tools could also have a greater focus on: innovation and learning (with some tolerance for risk), and “closing the loop” to pool and manage prevention funding, invest in an evidence-informed core set of prevention strategies, and capture and reinvest savings. The financing system must also address the specific regulatory and governance complexities between the Federal government and Tribal Nations to unlock capital and other resources for Native communities. Where complete blending of funding sources or unrestricted pots of money are not possible, or don’t make sense, assessing opportunities to braid funding (i.e. maintain the separate funding streams and track those resources yet build greater alignment and sense of shared purpose across funding streams) will represent an important way to advance efforts within a System of Health Equity.
c) Metrics and measurement: Establishing metrics not only underscores the importance of addressing health inequities, it directs the Foundation and the country to a set of priorities and actions that can and will make a difference in the health and well-being of those populations in the U.S. who are most at risk for poor health and safety outcomes. If something is important, we note it, count it, measure it, track it. RWJF’s commitment to metrics reflects the Foundation’s commitment to achieving health equity. Metrics can also help to demonstrate social, economic, and environmental impact to build support for increased investment. Within the domain of metrics are at least two important subsets of data and information that may be particularly relevant to a System of Health Equity: a) performance metrics and b) real-time system-improvement analysis. Performance metrics within a health equity system have to do with defining the kinds of behaviors that people and players within the system should be doing to help meet the aims of the system. Behaviors that reinforce the vision and move toward improved health equity can be acknowledged and rewarded. Real-time system-improvement analysis involves examining where elements of the system appear to be working well and revisiting areas where the system is not performing as intended or not producing the expected outcomes. Rather than lengthy external evaluations, this is a way to embed the notion that the system needs guardians and caretakers to nurture its growth and development over time.

The Health Equity Metrics table delineates recommended metrics in previous work commissioned by the Achieving Health Equity team. Under this work, Prevention Institute was permitted to select both existing metrics and potential metrics for development. RWJF’s AHE team can select to develop some of these metrics and encourage others to track and report on these metrics. By prioritizing the development of a National Health Equity Index, the AHE is taking important steps to monitor progress on achieving health equity. To the extent feasible, the AHE team should encourage inclusion of metrics that track progress related to the recommended multi-sector systems and supporting recommendations in this report.

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23. Number of comprehensive smoke-free policies in places that prohibit smoking in all indoor areas of worksites and public places, including restaurants and bars (indicator)
24. Community Safety Scorecard\textsuperscript{218} (index)
25. Number of cities with a comprehensive, multi-sector violence prevention plan (indicator)

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29. Complete and livable communities\textsuperscript{219} (index)
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31. Percent of families who say it's hard to find the child care they need (indicator)
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\textbf{Healthcare Services} The following metrics for healthcare include attention to access
33. Percent of patients that can access a place they call their “medical care home” within two weeks’ time (indicator)
34. Patient satisfaction with medical encounters as a measure of culturally and linguistically appropriate care (indicator)
35. Number of medical schools that integrate healthcare disparities and community learning throughout entire curriculum and training program (indicator)

\textbf{System of Health Equity Diagrams:}

\textit{Gear diagram}: The diagram on page 70 depicts the multi-sector systems, sectors and essential elements of the System of Health Equity as gears. It is a metaphor for these all working together to produce health equity. The
  \begin{itemize}
    \item \textcolor{orange}{orange} gears are the multi-sector systems
    \item \textcolor{blue}{blue} gears are sectors
    \item \textcolor{green}{green} gears represent the health equity system elements
  \end{itemize}

\textit{COH Action Framework diagram}: The diagram on page 71 reflects the COH Action Framework with the multi-sector systems, the sectors and the System for Health Equity overlaid upon it.
Figure 4: Emerging Systems Framework for an Equitable COH with a System of Health Equity Overlaid
Multiple organizations, sectors and leaders are in positions to counter the production of health inequity and produce health equity. Social justice and health equity work is not neutral – it is a values proposition that at times goes against the status quo and business as usual for fundamental Change. There is a growing appreciation of the importance of a health equity approach, but too often determinants are thought of on a broad national scale without adequate translation to being actionable – aimed at specific systems and to local as well as supporting national, state and sectoral action. Further, changes need to be accelerated – evolution is too slow; transformation is needed. The following strategic mix of actions can contribute to a synergistic or cumulative impact as efforts amplify and maintain a steady drum beat for intentional Change – a “C “ change – through the following actions: 1) Champion, 2) Coalesce, 3) Catalyze, 4) Cultivate, and 5) Connect.

1) Champion an equitable Culture of Health. In alignment with RWJF’s bold vision of a Culture of Health, organizations have the opportunity to champion an equitable Culture of Health. Organizational representatives and leaders can be ambassadors of an equitable Culture of Health, advancing health equity within organizations and among outside partners. This effort can counter the production of health inequities and reflect the principles and values that will advance health equity as well as provide a sense of direction toward specific action steps. Health equity principles are delineated in Appendix D. Values that are aligned with an equitable Culture of Health include fairness, inclusivity, interdependence, diversity, choice, access, sustainability, cultural competency, ownership, and empowerment.

2) Coalesce others in advancing an equitable Culture of Health including making the case for achieving health equity and convening and inspiring leaders to advance a transformational approach to health equity. The nation is in need of a new set of narratives on health equity: ones that forge common ground, build a collective voice, and join a wide range of stakeholders and sectors. Organizations, sectors, and leaders can build upon the tremendous energy and momentum generated by a new generation of equity and justice advocates by leveraging the influence of their organizations, sectors, and positions to shape and bolster policy efforts that create equity and lend support to grassroots efforts.

3) Catalyze a System of Health Equity and sustainable investments in health equity. Organizations, sectors and leaders can leverage their commitment and position to encourage broader, ongoing investment in achieving health equity. Beginning with identifying opportunities within their own organizations and bridging out to other partners, organizations have the opportunity to encourage investments in the identified systems, in broader evaluation, and in changes within sectors, for example. Emphasis could be placed on investments that achieve change at the community level since this is where inequities play out on a day to day basis and innovation occurs.

4) Cultivate capacity among leaders and practitioners to achieve health equity. As previously described, building capacity among leaders and practitioners within sectors and multi-sector systems is a critical element of interrupting or reversing the production of health inequity; ameliorating the impacts through community level strategies; accelerating and sustaining the production of health equity; and introducing calibration points to measure progress in the production of health equity at the local level.

5) Connect communities to tools, models, training and guidance to achieve health equity. Community efforts and change is integral to success, yet communities benefit from support, including learning from other efforts.
Appendix A: Glossary of Terms

General term

**Health Equity**: Means that every person, regardless of who they are – the color of their skin, their level of education, their gender or sexual identity, whether or not they have a disability, the job that they have, or the neighborhood that they live in – has an equal opportunity to achieve optimal health.221

**Health Inequity**: The ‘differences in health which are not only unnecessary and avoidable but, in addition, are considered unfair and unjust.’ Thus, equity and inequity are based on core values of fairness. The term ‘inequity’ can be used when the referenced differences in health outcomes have been produced by historic and systemic social injustices, or the unintended or indirect consequences of social policies. Health inequity is related both to a legacy of overt discriminatory actions on the part of government and the larger society, as well as to present day practices and policies of public and private institutions that continue to perpetuate a system of diminished opportunity for certain populations.222

**Health Disparity**: The differences in the incidence, prevalence, mortality, and burden of diseases and other adverse health conditions that exist among specific population groups in the United States.223

**Social Determinants of Health** (SDOH): The structural drivers and conditions of daily life:224

**Structural drivers** include the inequitable distribution of power, money, opportunity, and resources and empowered/disempowered people.225 Daily living conditions are the environments in which people are born, live, learn, work, play, worship, and age that affect a wide range of health, functioning, and quality-of-life outcomes and risks.226

**Determinants of Health** (DOH): Structural drivers (the inequitable distribution of power, money, opportunity, and resources and empowered/disempowered people), community determinants, and healthcare.227

**Community determinants**: Community determinants, or community conditions, are the determinants of health at the community level. They constitute the socio-cultural, physical/build and educational/economic community environments, including factors such as education, employment, housing, what’s sold and promoted, arts and cultural expression, social connection and trust, and transportation. Community determinants are shaped by structural drivers and reflect unequal opportunities, choices, and access to resources that would allow people to pursue healthy, thriving lives. Focusing on community determinants enables communities to alter the way that structural drivers affect daily living conditions, thus providing the opportunity to improve health and safety and reduce inequities.228

**Root causes**: An initiating cause of either a condition or a causal chain that leads to an outcome or effect. Commonly, root cause is used to describe the depth in the causal chain where an intervention could reasonably be implemented to improve performance or prevent an undesirable outcome.229

**Indicator**: A single measurement.

**Index**: A measurement that includes multiple indicators and is in use by others – particularly for research purposes.

**Composite measure**: Includes multiple indicators and is not necessarily in use by others but includes specific indicators that correlate strongly with health outcomes.
**Displacement:** Displacement occurs when any household is forced to move from its residence by conditions which affect that dwelling or its immediate surroundings, and:

- are beyond the household’s reasonable ability to control or prevent;
- occur despite the household having met all previously-imposed conditions of occupancy;
- and make continued occupancy by that household impossible, hazardous or unaffordable.\(^1\)

**Sector:** A field, discipline, or area of expertise that is characterized by a combination of related activities and functions that are typically understood as distinct from those of others.

**System:** A set of interrelated parts that interact and function together to produce a common outcome or product.\(^2\)

**System of Health Equity:** A way of organizing and structuring relationships, innovation, learning, and advocacy for coherent and interrelated practices – within the foundation, government, private sector and community – to attain health equity across the population. This system can track and account for the overarching findings that emerged and will help ensure all efforts, including those to build and strengthen the multi-sector systems, will advance health equity.

**Sectors**

**Agriculture:** Responsible for the production of food.

**Banking/Finance:** Provides a wide variety of financial services, including: deposit and payment systems and products; credit and liquidity products; investment products; and risk-transfer products.\(^3\)

**Economic Development:** Creates qualitative change and restructuring in a region’s economy in connection with technological and social progress. The main indicator of economic development is increasing GNP per capita (or GDP per capita), reflecting an increase in the economic productivity and average material well-being of a region’s population. Economic development is closely linked with economic growth.\(^4\)

**Education:** Delivers formal, structured teaching through a system of public, alternative and charter schools and community colleges, spanning pre-kindergarten through graduate, including vocational instruction.\(^5\)

**Healthcare:** Provides health, medical, mental health, and dental services, credentials, providers (individual and organizations) and provides insurance coverage.

**Housing:** Plays role in the planning, development, construction, availability and siting of housing and consequently in the development of communities.

**Human/Social Services:** Meets human needs through an applied knowledge base, focusing on intervention at time of need as well as remediation of problems, and maintaining a commitment to improving the overall quality of life of service populations. The process involves the study of social technologies (practice methods, models, and theories), service technologies (programs, organizations, and systems), and scientific innovations that are designed to ameliorate problems and enhance the quality of life of individuals, families and communities to improve the delivery of service with better coordination, accessibility and accountability.\(^6\)

**Business/Industry:** Provides goods and services, typically in exchange for money, to generate profit and conduct its operations in ways that advance the interests of shareholders or the business owner, within the boundaries of law and ethics.\(^7\)
**Justice:** Has a mandate to preserve order and safety, protect life and property, and safeguard rights. This sector interprets and enforces laws, and has the authority to detain and punish people who violate the law. It oversees trials and carries out due process, and coordinates local efforts to support people exiting the justice system.\(^{239}\)

**Labor:** Works to create an economic climate that attracts businesses and a skilled workforce, creates job opportunities, and builds the city’s tax base.\(^{240}\)

**Land use and Management:** Designs, manages and makes decisions about land use, including how it is used, for whom, and for what purposes under which circumstances.

**Public Health:** Improves quality of life, prevents and treats diseases and injury, and promotes healthy behaviors and environments, using contextual, experiential and research evidence.\(^{241}\)

**Transportation:** Responsible for the smooth operation of the transportation network and provides safe, comfortable and efficient ways for people to get from place to place, promotes mobility of all residents and visitors, including those with disabilities and older adults, and plans, develops, and maintains the transportation infrastructure (e.g. roads, bike paths, rail). The goal of the transportation department is to provide residents and visitors with safe, accessible travel options, such as walking, cycling, buses, light rail, subway, or automobile. It keeps pedestrians, bicycles, and car traffic flowing, and designs streets to minimize collisions and traffic-related injuries.\(^{242}\)

**Workforce Development:** Assists people looking for work; provides job services and training, such as mock interviews, job leads, resume advice and professional certifications; identifies promising candidates and helps employers fill openings and retain a full complement of employees; anticipates future labor market needs to develop the skills of young people and other future workers so they are competitive when seeking work.\(^{243}\)
Appendix B: The Determinants of Health in Relation to Health and Illness and Health Equity/Inequity

Socio-Cultural Environment

Socio-Cultural Environment as a Determinant of Health and Illness

The socio-cultural environment describes how people interact with one another, what people believe, and the influences that orient them to the world. As a DOH, the socio-cultural environment includes factors that help to improve health in a community through the establishment of meaningful interpersonal connections, the promotion of civic participation and engagement, the establishment of norms that promote health and safety, and the recognition that culture is a strong element of community identity and resilience.

Trust relationships, social networks, and social cohesion are a vital part of a healthy socio-cultural environment. Residents in neighborhoods with greater perceived social cohesion and safety report better health and engage in health-promoting behaviors more often: they smoke less, are more physically active, experience less depression, and have a greater life expectancy. Moreover, healthy relationships and positive social networks can provide support for individuals who are changing important lifestyle and health behaviors, such as quitting smoking, overcoming drug and alcohol abuse, or maintaining a healthy diet and exercise regimen. In addition, participation in civic activities such as voting, which can improve quality of life, is more likely to occur among people who feel connected to one another and have a greater attachment to where they live.

Strong social networks and trust are a prerequisite for community efficacy—the willingness to act for the common good. Social networks foster mutual trust and increase community members’ willingness to supervise the children of others, participate in community-building activities, and maintain public order. Combined with neighbors’ willingness to intervene on behalf of the common good, participation in social networks produces and enforces social sanctions and controls that diminish negative behavior and reduce the incidence of crime, delinquency, and access to firearms within communities. Communities experience better health outcomes and less violence when residents feel empowered to meaningfully participate in civic activities to address shared stressors. For example, older adults who volunteer report lower levels of depression and better self-rated health than those who do not volunteer. Moreover, lower rates of mortality and heart disease have been associated with states that have higher rates of volunteerism.

Disenfranchisement often refers to undermining the ability to engage in the democratic or civic process. When groups are disenfranchised from civic engagement, including voting, they have a restricted ability to influence policy decisions that are made, including those that affect their own lives. Similarly, when the socio-cultural environment is not thriving, it faces multiple barriers to success across generations, the positive influences of the socio-cultural environment are diminished and individuals may seek other structures with intact social cohesion. Gang affiliation, for example has been associated with youth who feel marginalized, rejected or ignored—in the family, school, church or society in general—to fill a need for support. Other health impacts such as increased levels of anxiety and depression have been linked to social environments that are not closely-knit and have greater degrees of social disorder.

Culture is the ongoing sharing of knowledge, values, and practices created by a set of people for perceiving, interpreting, expressing, and responding to the social realities around them. Cultural practices form the basis of socio-cultural norms, or the broadly accepted behaviors to which people generally conform, which can both support or reduce health and safety outcomes through the shaping of behaviors and beliefs, and are present...
within organizations and institutions as well as communities and populations. Often unspoken, these norms offer social standards of appropriate and inappropriate behavior, shaping perceptions of what is (and is not) acceptable, and conforming the actions of individuals to others in the group.\textsuperscript{260} For example, the normalization of car seat use for infants decreased fatalities among young passengers,\textsuperscript{261} as has the normalization of use of seat belts for adults for fatalities among all passengers.\textsuperscript{262} Similarly, smoking cigarettes was once a widely-accepted and popular behavior despite its negative health consequences, which include emphysema, bronchitis, cancer, and cardiovascular disease, but is no longer a widely accepted behavior norm.\textsuperscript{263,264,265}

**Socio-Cultural Environment as a Determinant of Health Equity and Inequity**

A thriving socio-cultural environment can create strong social networks and levels of trust that protect against the negative impacts of poverty and mitigate the effects of discrimination.\textsuperscript{266} However, many of the individuals and communities that have experienced inequities for generations have developed deep-seated feelings of hopelessness and/or contempt especially in the face of seemingly intractable poverty, violence, and community isolation. As a result, the socio-cultural environment in these communities has often deteriorated.\textsuperscript{267}

- Communities of color have lower voter participation rates than whites – Black, Latino, and Asian voters represent a smaller percentage of the voting population than they do of the population that is eligible to vote.\textsuperscript{268}
- Currently 5.85 million U.S. citizens are prohibited from voting due to a felony conviction – thereby disenfranchising them – 75% of whom have served their sentence.\textsuperscript{269}
- Residential stability – which is higher in communities where residents own their homes - strengthens social ties with neighbors.\textsuperscript{270,271} Homeowners are significantly more likely to participate in political and civic activities than non-homers.\textsuperscript{272} In the third quarter of 2015, the home-ownership rate for whites was 72% compared to just 42% among blacks and 46% among Latinos.\textsuperscript{273}

Concentrated poverty impacts the socio-cultural environment of a community deeply. For example, high levels of unemployment and low education attainment in areas of concentrated poverty can change expectations and norms around work and education and influence levels of community violence. Moreover, concentrated levels of incarceration and prior involvement in the criminal justice system\textsuperscript{274} experienced by residents also serve to erode the social fabric in these neighborhoods by way of hyper-exclusion of impacted youth from educational settings, creating barriers to labor force participation and breaking up families.\textsuperscript{275}

- Black and Latino inmates comprised almost 60% of the federal and state prison population in 2013.\textsuperscript{276}
- Regardless of race/ethnicity, individuals with low-average incomes are more likely to be incarcerated – in 2014, incarcerated individuals had an income 41% lower than non-incarcerated individuals of similar ages prior to their arrests.\textsuperscript{277}

Individuals within communities – both geographically-and-culturally bound – that have high rates of violence, experience shared community trauma that extends beyond the individuals who were directly involved in the violence. One impact of past or persistent trauma across the population is a breakdown of social networks, social relationships, and positive social norms across the community – all of which could otherwise be protective factors.\textsuperscript{278} The erosion of these protective factors can be reflected in bystander behavior, an expectation of further traumatic events, distrust and generalized fear. The multiple impacts of violence of the socio-cultural environment highlight the complex, interrelated nature of the components of the socio-cultural environment.
**Built/Physical Environment**

**Built/Physical Environment as a Determinant of Health and Illness**

The built environment within neighborhoods greatly impacts health and safety. Land-use patterns are the first aspect of the built environment, determining the types of resources that are available in a community and how homes, offices, food retail outlets, parks, and other gathering places within a community are arranged. These land-use decisions are significantly connected to people’s access to goods, services, and resources that are vital for a healthy life, such as grocery stores, green space, or areas to be active. The built environment also includes how transportation systems are designed as well as the extent of exposure to air and water pollution. Lastly, aesthetic qualities of the built environment, such as the look and feel, perceptions of safety, and the presence of art in a community, impact health.

The built/physical environment is shaped by land-use decisions. These decisions create a sense of place and convey community culture, or foster and limit social connectedness and a sense of well-being. They also shape patterns of physical activity and influence the consumption of healthy food, as well as public safety.

Land-use decisions’ direct impact on the availability, type, and spatial distribution of food in a community influences opportunities for healthful eating. Eating a balanced diet rich in fruits and vegetables is associated with numerous health benefits including reducing the risk of developing chronic disease such as cardiovascular disease, cancer, and type II diabetes. Studies examining the relationship between proximity to supermarkets and fast-food outlets, and eating behavior have had mixed findings. However, numerous studies have demonstrated that residents – including children – in communities with supermarkets or other vendors offering healthy food options consume healthier foods than residents in communities that lack grocery stores. Further, proximity to fast-food outlets and convenience stores is associated with lower fruit and vegetable consumption.

- The availability of small food stores that sell fresh vegetables within 100 meters of a residence has been associated with an increased consumption of fruits and vegetables. Each additional meter of shelf space dedicated to vegetables at such stores within a block of a person’s residence is associated with a .35 servings per-day increased intake.
- The presence of a grocery store in the neighborhood has been associated with 0.69 more fruit and vegetable servings per day.
- The likelihood of consuming five or more servings of fruits and vegetables per day decreases as distance to supermarket increases.

In addition, by limiting the density of alcohol outlets the risk of violence decreases.

- Alcohol outlet density has been found to be the single greatest predictor of violent crime in communities.
- A California study showed that removing one bar per zip code in the state would reduce assaults requiring overnight hospitalization by 290 per year.
- A study in an Atlanta suburb demonstrated a 3% relative reduction in alcohol outlet density was associated with a 2-fold greater reduction in exposure to violent crime.
- A 10% greater proportion of bars in a given zip code and its surrounding areas is associated with 7.5% greater assault injuries.

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All issues are complicated by the fact that the environment is strangling us and causing significant shifts in the ecosystem.

– Denise Fairchild
Land-use patterns also impact the availability and distribution of parks and recreational facilities. Parks, recreational facilities, and recreational programming are essential public infrastructures that confer well-documented health, social, economic, and environmental benefits to a community. The physical and mental health benefits of park infrastructure include higher levels of physical activity, increased positive mood, and reduced stress and depression. People living in close proximity to parks, generally within walking distance, engage in higher rates of physical activity than individuals who have to travel greater distances. By enhancing opportunities for play, these spaces also play a critical role in the social, emotional, cognitive, and physical well-being of a child and provide space for social interactions among people who already know one another and between park users – strengthening social cohesion.

- The presence of an urban park nearby has been found to have the same mental health benefits as decreasing the unemployment rate by 2 percentage points. The likelihood of getting at least 30 minutes of exercise per day increases by 47% for individuals who live in communities with sidewalks and by 50% for people who live near trails. A study of adolescent females across six cities found that those who had more parks within one mile of home had higher rates of physical activity than those with fewer parks near home – each additional park within a half-mile of home was associated with 17 more minutes of physical activity over a 6-day period. Older adults, many of whom have mobility disabilities, often can’t fully participate at parks and recreation facilities due to built/physical environment barriers despite more than 30 years of federal disability rights legislation mandating disabled access.

Transportation elements in the built/physical environment influence how places connect to one another and how people travel from one destination to the next. The connectivity and proximity of destinations, such as work and school, influence people’s modes of travel as well as their opportunities for social interactions. An overreliance on automobile travel increases the risk of traffic-related injuries and fatalities, contributes to increased respiratory illnesses, and compromises cardiovascular health due to elevated exposure to air toxins and particulate matter. Air pollution from vehicular traffic particularly compromises the health of young children and older adults due to reduced immune function at these life stages.

- Traffic crashes cause over 30,000 deaths a year and they are the leading cause of death among 15-24 year olds. Reducing exposure to particulate matter has been associated with improvements in life expectancy of 0.35 years. People in heavy traffic have three times the risk of having a heart attack within an hour.

Among people who commute more than one hour each day, each additional hour spent commuting is associated with a 6% decrease in aggregate health-related activities, including sleeping, physical activity, family eating, and preparing meals, and socializing. Time spent sleeping is most affected by additional commuting time. Communities with safe walking, biking, and park infrastructure; accessible public transit, and well-connected destinations within close proximity to each other encourage physical activity and social interaction among residents; enhance access to educational and employment opportunities; promote safety, stress reduction, and well-being; and can encourage healthy eating through the presence of healthier food options. The availability of active transportation is important to health given associated physical activity. People are living in more compact communities, where active transit is more prevalent have less heart disease, high blood pressure, and diabetes. However, unsafe and deteriorating pedestrian and bicycle infrastructure, and high-speed traffic and roads, lead to higher rates of injuries and fatalities from motor-vehicle, pedestrian, and cycling accidents and violence.
- Pedestrian crashes are 2.5 times less likely to occur on streets with sidewalks.  
- Slowing down traffic from 40 to 20 miles per hour can reduce the likelihood of being killed from 85% to 5%.  
- More than 40% of pedestrian fatalities occur where there is no crosswalk nearby.  
- Improved lighting at crossings has been shown to reduce nighttime pedestrian fatalities by 78%.  
- Protected bike lanes have been shown to decrease injury crashes for all road users (drivers, pedestrians and cyclists) by 40%.  

Another component of the built/physical environment that impacts health is the presence of industrial facilities or brownfields within residential neighborhoods. For example, toxic industrial facilities emit hazardous air pollutants and impermeable surfaces – such as roads and large parking lots – create water runoff that has not been naturally filtered, increasing the risk of water pollution.  

- People who live near ports, rail yards, landfills, freeways, and other sources of toxic exposures, such as commercial concentrated animal feeding operations, experience higher risk factors for respiratory illness, asthma, heart disease, cancer, stroke, and Type II diabetes.  
- For people with chronic respiratory illnesses, such as asthma, environmental pollution can trigger asthmatic attacks and serve as a barrier for physical activity.  
- Infants, children, the elderly, chronically ill and immunocompromised individuals are at increased risk. Residing in communities with a high concentration of hazardous industrial or commercial land uses can also impact social cohesion and local wealth as pollution impacts property values. In addition, chronic disease caused by environmental toxins is costly, which can impact local wealth.  

- A California study showed that 8% of childhood asthma in Los Angeles County was attributable to traffic-related pollution at homes within 75 meters (a little less than 250 feet) of a busy roadway.  
- Residential proximity to roadways increases the risk of sudden cardiac death among women living within 50 meters of a major roadway.  

The aesthetic qualities of the built/physical environment that shape perceptions also impact health. The presence of art and cultural expressions in the built/physical environment can positively shape the sociocultural environment, bring people together, and enhance social cohesion.  

- The presence of community-inspired arts and other cultural representations within neighborhoods can strengthen the sense of place and reflect social values within communities – supporting social well-being.  
- Conversely, the presence of unhealthy environmental features also serve as visible cues of social disorder conveying to residents that they live in an unsafe, unhealthy and socially undesirable neighborhood – weakening social cohesion.  

Collectively, the features within the built/physical environment shape the way people interpret, respond to, behave, and interact with places and the people with which they live, learn, work, play, and worship – shaping health beliefs, behaviors, and overall well-being.  

**Built/Physical Environment as a Determinant of Health Equity and Inequity**  

Communities that have been disadvantaged and communities of color frequently experience built/physical environments that compromise their health status.  

Examples of inequities within land use related to food and alcohol retail, and financial services:  

- Communities of color and communities with low-average household incomes often experience a high density of fast-food and corner-store retailers and fewer traditional grocery stores and full-service supermarkets.
• Low- to middle-income neighborhoods have 1.25-1.3 times the number of fast-food restaurants than neighborhoods with predominately high incomes. The proportion of fast-food restaurants in communities of color is higher, even though there are fewer restaurants overall. 347
• Census tracts with low-average household incomes have half the number of grocery stores as census tracts with a high percentage of wealthy residents. 348
• 31% of whites live in a census tract with a supermarket compared to just 8% of African Americans. 349
• Among African Americans and Latinos, the presence of a convenience store in the neighborhood has been associated with 1.84 fewer daily fruit and vegetable servings. 350
• Rural communities have 14% fewer supermarkets than urban areas.351 Nearly 8% of all rural residents lack access to healthy food.352 Many small, rural communities are experiencing the loss of grocery stores as populations to support retail decline, owners age, and chain stores replace local stores. 353
• Among African Americans living in rural areas in Texas, each additional mile between their residence and the cheapest grocery store or supermarket was associated with a 1.8 percentage point decrease in the probability of consuming at least three servings of vegetables per day. 354
• The distribution of liquor retail outlets is highly correlated with neighborhood poverty. In Alameda County, neighborhoods where 30% or more of residents live in poverty have a density of 1.03 liquor stores per 1,000 residents. This compares to a density of 0.57 per 1,000 residents in neighborhoods with less than 10% poverty. 355
• Census tracts with a greater proportion of African American residents have higher tobacco retailer density and retailers are less likely to request age identification. 356, 357
• Communities of color, particularly in areas with low-to moderate incomes, often become the site of other predatory financial services including pay-day loan and check-cashing businesses. 358

Examples of inequities within land use related to access to green space and recreational facilities: There are significant inequities in the distribution of park infrastructure and quality of related facilities between communities of color and those with low-average household incomes and more affluent communities that are predominately white, especially in densely populated urban areas as well as rural communities with concentrated poverty. 359,360,361,362
• Neighborhoods of color and those with low-average household incomes are half as likely as neighborhoods that are predominately white and with high-average household incomes to have at least one physical activity facility in their neighborhood. 363 Communities that have been disadvantaged and communities of color often lack adequate park facilities and green space. 364,365

Communities of color and people with low-incomes are more likely to live in close proximity to busy roads and freeways – increasing their risk of exposure to air pollution. In addition, people with low incomes and people of color spend a higher percentage of their incomes on transit and are four times more likely to use public transportation for their work commute. Thus, the implications of the quality of transportation systems – how well they connect neighborhoods to resources, their cost, and their efficiency – are more prominent in these communities. A poorly connected transit system limits employment opportunities, especially for people living in the urban core as jobs migrate to the suburbs. A poorly connected system also limits access to other resources as services, such as healthcare and healthy food vendors. Conversely, as more people living in poverty move to the suburbs, where there are fewer public transportation options, car ownership becomes more of a necessity. This cost, which can be upwards of $9,000 per year, is untenable for many people living in poverty. Therefore, for people with low incomes and for communities of color, the transportation system disproportionately presents a financial burden and limits access to resources and employment opportunities. 366 Related facts:
• Communities of color and communities that have low-average household incomes experience higher rates of pedestrian fatalities and respiratory illness including asthma, reduced lung function, and lung cancer resulting from exposure to traffic-related air pollution.367,368,369,370
• The pedestrian fatality rate is highest in the U.S. neighborhoods with the lowest average household income.371
• African Americans suffer a pedestrian fatality 60% higher than non-Latino whites, and Latinos have a rate nearly 43% higher.372 American Indians experience the highest pedestrian injury and mortality rate per capita of any racial or ethnic group.373
• The average family in the U.S. spends 18% of their income on transportation.374 People in the lowest 20% income bracket spend 42% of their total income on transportation compared to 22% among those in higher-income brackets.375
• Communities of color are four times more likely than whites to rely on public transportation for their work commute and less likely to have adequate access.376

The current transportation system also disproportionately limits the mobility of non-drivers such as older adults and people with disabilities, as well as individuals living in rural areas and on reservations. While the majority of the U.S. population now resides in urban/suburban areas, a considerable number of people still live in rural areas and on tribal lands. Residents in rural areas and on tribal lands experience unique built/physical environment challenges that impact health. Since there is greater distance between destinations in rural areas and on reservations it is difficult to engage in active transportation – decreasing the likelihood of achieving physical activity during daily routines.377 Moreover, many rural areas are considered food deserts.378 Given the longer distances between residences and essential destinations such as supermarkets and healthcare facilities, access to transportation is more critical for rural residents to maintain health.379

Examples of transportation inequities among people with disabilities, rural residents and older adults include:
• 28% of people with disabilities reportedly do not leave their home because of transportation difficulties – isolating them from opportunities such as jobs, housing and education.380
• Individuals living in rural areas and those living on reservations are often isolated due to inadequate road infrastructure and lack of public transportation – 41% of the rural population lives in areas with no public transportation.381
• Motor-vehicle crashes in rural areas account for more than half of all crashes although less than 25% of all driving in the U.S. occurs in these settings.382

Exposure to environmental toxins is also inequitably distributed:
• Urban neighborhoods with high levels of poverty and communities of color are characterized by poor housing conditions surrounded by high traffic roads, freeways and rail yards, and heavy concentrations of industrial sites—ranging from refineries and auto body shops to metal plating facilities—that generate air pollution and other environmental hazards.383,384,385,386
• 68% percent of African Americans live within 30 miles of a coal-fired power plant compared to 56% of whites.387
• A 1987-2007 report showed that 46% percent of public housing units were within 1 mile of factories that reported emissions to the Environmental Protection Agency.388 This type of study has not been readily available since HUD’s implementation of scattered site housing vouchers, which allows public housing vouchers to be used wherever they are accepted, including market rate apartments and houses. However, the only actions that would move the 46% number (which impacts people who use their vouchers for public housing) significantly in a positive direction would be the relocation or abandonment of factories, or the movement of multi-family housing units.
Many American Indians/Alaska Natives reside on reservations that are often near toxic waste dumps and nuclear test sites.\textsuperscript{389} Rural residents experience inequitable exposure to agricultural practices, such as the use of pesticides, groundwater contamination, the presence of hazardous waste landfills and large-scale chemical and industrial operations result in higher mortality rates from cancer and respiratory diseases.\textsuperscript{390,391}

**Housing**

**Housing as a Determinant of Health and Illness**

Housing impacts health through issues related to housing quality, affordability, stability of families and neighborhoods, and neighborhood access to resources and opportunity. Access to quality housing and shelter are a human right and a basic need for healthy living. Safe and secure housing promotes health and well-being by bringing feelings of safety, stability, and control to community members.\textsuperscript{392}

Poor-quality housing impacts health in a plethora of ways as drafty windows, leaky roofs, mold, pests, noise pollution, and poor lighting all make housing dangerous for health. Substandard housing can increase the risk of falls, burns from exposed pipes or radiators, exposure to toxins, and other injuries.\textsuperscript{393} For example, indoor allergens such as mold and dust can accumulate in old carpeting or in older, damp houses with poor ventilation, leading to and exacerbating asthma and other respiratory diseases.\textsuperscript{394,395,396,397} In addition, many older structures have not been retrofitted to remove lead paint, placing both children and adults at risk of health problems. In children, exposure to lead can cause lead poisoning, which can lead to learning disabilities and behavioral problems.\textsuperscript{398} In adults, exposure to lead can cause reproductive system damage.\textsuperscript{399} Poor lighting has been linked with depression, psychological effects, and eyestrain; while noise can cause hearing impairment, sleep disturbance, psychosocial stress, aggression, anxiety,\textsuperscript{400} hypertension, cardiovascular events,\textsuperscript{401} and increased behavior problems and impaired cognitive performance among students.\textsuperscript{402} Lastly, unsanitary housing conditions can lead to the spread of infectious disease.\textsuperscript{403}

Housing is commonly referred to as being “affordable” when a family spends less than 30% of its income to rent or buy a residence. In 2013, the proportion of renters that spent more than 30% on rent was nearly 50%, setting a new record.\textsuperscript{404} Unaffordable housing can cause families to sacrifice vital household expenditures such as food, healthcare, and transportation, as well as family investments such as in child enrichment or education in order to pay for the cost of housing.\textsuperscript{405,406} These sacrifices can lead to poor nutrition and increased stress.\textsuperscript{407} The stress caused by a lack of affordable housing can lead to a higher risk of developing depression, hypertension, more trips to the doctor, and reduced psychological health.\textsuperscript{408}

When housing costs exceed what single families are able to afford, they may “double-up”\textsuperscript{**} or begin to live in homes that are overcrowded to reduce costs.\textsuperscript{409} Overcrowding reduces people’s well-being and is associated with reduced physical health; increased spread of infectious disease, including tuberculosis;\textsuperscript{410} reduced test scores in math and reading; and increased behavior problems, such as withdrawal and depression among children.\textsuperscript{411,412} Unaffordable housing may also cause families to move to less expensive housing, either through choice or forced removal such as home foreclosure or eviction. Such instability in housing is associated with health issues for both the adults and children involved. Children who experience residential instability are more likely to experience emotional, behavioral, and academic problems, and are at an increased risk of teen pregnancy, early drug use, and depression during adolescence.\textsuperscript{413} Adults who are displaced from their homes

**“Doubled up” is a term that refers to a situation where individuals are unable to maintain their housing situation and are forced to stay with a series of friends and/or extended family members.**
experience increased rates of chronic and preventable diseases such as cancer, asthma, diabetes, and cardiovascular disease, and worsened mental health. When housing is altogether unaffordable, homelessness may result, which is associated with premature death and a number of health conditions including infectious disease, mental disorders, unintentional injury, substance misuse, and accelerated ageing. 

Displaced residents are also burdened with costs associated with resettling in a new community or home and frequently relocate to neighborhoods with fewer resources. Neighborhoods provide access to essential resources, such as employment, education, healthcare, and retail such as food outlets or pharmacies. Displaced residents face the double burden of losing the access to resources they rely upon and moving into an area where fewer resources are available. As a result, displacement can cause ripple effects through other determinants of health, such as education or employment. For example, families may experience loss of capital investments, which include home and business; inability to sustain a job due to increased commuting obstacles; and disruption in a child’s education. The built environment differences between neighborhoods impact access to healthy food, walkability, and proximity to hazardous materials. Displaced residents may also move away from cultural institutions, culturally-relevant businesses and a general feeling of having a place to call home. Losing these institutions, connections, and networks creates excess stress and psychological effects, which decrease immunity and resilience against chronic conditions, such as cancer or cardiovascular disease.

Housing instability also has consequences at the neighborhood level as forced removal or housing cost increases displace large numbers of longtime residents. Such residential displacement disrupts strong social ties, social cohesion, and support networks within a community and may impact other determinants of health. Transit ridership has been shown to decrease as the average household incomes of residents in neighborhoods increases and public schools may lose students as new residents send their children to private or charter schools.

**Housing as a Determinant of Health Equity and Inequity**

Within all aspects of housing, inequities place communities of color and communities with low-average household incomes at higher risk for poor health outcomes.

Examples of inequities within housing quality:

- 44.5% of occupied units are considered to be inadequate housing in urban areas, 33.1% in suburban areas, and 29.6% in rural areas and small towns.
- 13.7% of low-rent units ($400 a month or less) failed to meet the criteria for adequate housing in 2011.
- Blacks have a 31% lower likelihood and Latinos have a 19% lower likelihood of living in adequate housing than whites across all income levels.
- In 2009, householders earning less than $24,999 annually were nearly 5 times less likely to live in adequate housing than householders who earned more than $75,000.
- 5.3% of homes on American Indian lands lack complete plumbing and 4.8% lack complete kitchens. This compares to national percentages of 0.5% and 0.7%, respectively. Over 14% of households on reservations lack electricity.

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†† Adequate housing means housing that is safe; secure; private; accessible; adequately lit, heated, and ventilated; has sanitation and waste management; and is accessible to basic services.
• Children who are poor, non-Latino black, living in large metropolitan areas, or living in older housing experience disproportionately high rates of exposure to lead.\textsuperscript{435} Though rates of children with elevated blood lead levels have dropped significantly in recent decades, inequities persist in mean blood lead level between non-Latino black children and non-Latino white and Mexican American children.\textsuperscript{436} 

• African Americans experience a higher risk of dying in a house fire, as do all people who live in a home with a compromised emergency exit.\textsuperscript{437} 

• Blacks and Latinos live in neighborhoods with high levels of disinvestment and poor-quality housing at higher rates than whites.\textsuperscript{438} 

Examples of inequities within housing affordability:

• In 2013, of renters with incomes below 30% of the median income of their area and with severe housing problems, 5.9% missed one rent payment in the last three months, 6.2% missed two to three rent payments, 3% had utilities shut off, and 3.3% faced the threat of eviction. This compares to only 1.1% of people earning 50% or more of the median income having missed one rent payment in the past three months, 2.6% having missed two to three rent payments, 1.3% having their utilities shut off, and 2.0% facing the threat of eviction.\textsuperscript{439} 

• In 2013, nearly 24% of households within incomes less than 200% of the federal poverty line spent more than 1/3 of their income on housing.\textsuperscript{440} 

• The share of cost-burdened renters who are paying 30% or more of their income on housing costs rose 12% over the decade between 2000 and 2012, reaching 50% in 2012. In 2011, 83% renters earning less than $15,000 were cost burdened and 71% were severely burdened (spending 50% or more of their incomes on housing). The same year 11.8 million renters with extremely low incomes (less than 30% of the area’s median income) faced a shortage of rental options with only 6.9 million rental units considered affordable at their income level available to them.\textsuperscript{441} 

• In 2013-2014, one-parent households with at least one child under 18 in the home spent over half of their total spending on food and housing.\textsuperscript{442} 

• One out of 30 children, or 2.5 million children, will be homeless each year.\textsuperscript{443} 

• As many as 40% of children in families with incomes up to 125% of the federal poverty line are homeless or doubled up at some point between age one and five.\textsuperscript{444} 

• There were an estimated 57,849 homeless veterans in the U.S. during January 2013, constituting 12% of all homeless adults.\textsuperscript{445} 

• In 2011 there was an 2.7% increase in the number of people who were doubled-up compared to 2007.\textsuperscript{446,447} 

• On average, 8.8% of homes on American Indian lands are crowded. This percentage reaches 22% in some counties, which are wholly comprised of American Indian reservations. Nationally, 3.0% of homes are crowded.\textsuperscript{448} 

• Some reports indicate that 18% of American Indian families experience severe overcrowding, with as many as 25-30 people living single home.\textsuperscript{449} 

Examples of inequities within homeownership:

• According to the 2010 Census, homeownership was highest among whites (72%), significantly lower among American Indians and Alaska Natives (54%) and Asians (58%), and lowest among African Americans (44%) and Latinos (47%).\textsuperscript{450} 

• The foreclosure crisis had a disproportionate impact on homeowners who are low-income or people of color. 790/10,000 loans made between 2005-2008 to African Americans were foreclosed between 2007-2009, 769/10,000 such loans to Latinos were foreclosed between 2007-2009, and 452/10,000 loans to non-Latino whites were foreclosed in the same time period.\textsuperscript{451} The effect of the recent foreclosures has been called “the greatest loss of wealth for people of color in modern U.S. history”.\textsuperscript{452}
- Homeownership has been shown to have a positive effect on self-perceived health, general health conditions, such as diabetes or cardiovascular disease, and protection against delays in needed medical care for white homeowners, but not for homeowners of color, indicating that other processes, such as subprime loans, home foreclosure, or neighborhood safety which tend to be less favorable among people of color may countervail the positive influence of homeownership.

**Public Safety**

**Public Safety as a Determinant of Health and Illness**

Violence is among the most serious health threats in the nation today, jeopardizing the health and safety of the public. Specifically, violence is a leading cause of injury, disability, and premature death. For example, homicide is the third-leading cause of death among 15-24 year olds and 25-34 year olds and the fifth-leading cause of death among 10-14 year olds and 35-44 year olds. Homicide is considered the tip of the iceberg, however. In 2012, more than 599,000 young people aged 10 to 24 years had physical assault injuries treated in U.S. emergency departments. In a 2013 nationwide survey, nearly one-quarter of high school students reported being in a physical fight in the 12 months before the survey and about 17.9% of high school students reported taking a weapon to school in the 30 days before the survey.

The consequences of violence for victims and those exposed are severe. Consequences include serious physical injuries, post-traumatic stress syndrome, depression, anxiety, substance abuse, and other longer term health problems such as cardiovascular disease. Violence is a factor in the development of multiple chronic diseases, which account for a majority of premature U.S. deaths, lost productivity and the majority and fastest growing percentage of our healthcare spending. Violence-related stress, particularly if chronic, has been linked to faster onset and progression of chronic illness and biological aging. For example, adults with asthma who had witnessed violence in their neighborhoods were twice as likely to visit the hospital for asthma as those who had not been exposed to violence. Chicago children from neighborhoods with moderate-to-serious problems with violence were about 60% more likely to develop asthma than children from neighborhoods experiencing lower rates of violence. Overall, people who live in neighborhoods they perceive to be unsafe have worse self-perceived health and more health conditions such as diabetes or cardiovascular disease.

Exposure to violence also affects health behaviors. In one study, persons who described their neighborhood as “not at all safe” were nearly three times more likely to be physically inactive than those describing their neighborhood as “extremely safe”. Exposure to and fear of violence also creates barriers to healthy eating and activity. This relationship appears to be the consequence of multiple effects of violence on communities, individuals, and populations. Such effects on communities include: reduced investment in community resources including parks and recreation facilities, and other activities that promote healthy activity; reluctance for food-related resources such as supermarkets to enter the community, reducing access to healthy foods; and interference with the growth of social capital and active mobility infrastructure that promotes healthy living. The effects on individuals and populations include: reduced physical activity’ increased sedentary time; increased use of processed and unhealthy food due to decreased access to healthy food choices; reduced optimism, increased anxiety and other emotional consequences affecting motivation for healthy living and activity; and turning to unhealthy behaviors such as an unhealthy diet, tobacco, or lack of exercise as a way to cope with the trauma from exposure to violence. Many urban youth experience trauma and may have Post-Traumatic Stress Disorder (PTSD) from exposure to violence. A nationally representative study found that more than 60% of children in the U.S. were exposed to violence in the past year and 19.2% had witnessed community assault. Young people exposed to violence as a victim or witness are at significantly higher risk for PTSD, major depressive episodes, and substance abuse.
and dependence.\textsuperscript{487,488} A widely cited statistic indicates that 77\% of children who witnessed a school shooting and 35\% of urban youth exposed to community violence develop PTSD,\textsuperscript{489} a rate far higher than that of soldiers deployed to combat areas over a six year period (20\%).\textsuperscript{490,491} Over 90\% of people with PTSD have at least one co-morbid mental disorder in their lifetime.\textsuperscript{492}

At the neighborhood level, communities perceived to be unsafe are associated with social isolation, which can have indirect impacts on health such as depression and other mental health issues. For older adults living alone social isolation may increase the risk of injury from falls.\textsuperscript{493,494} Further, communities that are unsafe can promote feelings of detachment, which can lead to hopelessness and decreased maintenance of the community and physical environment. In such areas, people may avoid going outside, which can increase the risk for chronic conditions.\textsuperscript{495} Moreover, neighborhoods with higher levels of violence may receive more forceful crime suppression strategies which can lead to disproportionate stops, arrests, and incarceration of community members.\textsuperscript{496} Parental incarceration can cause children to lose attachments and their ability to trust, and undermines their sense of stability and safety. It is also linked to an increased likelihood of delinquent behavior,\textsuperscript{497} antisocial behavior,\textsuperscript{498} school failure and mental health problems.\textsuperscript{499} Having an incarcerated parent is an adverse childhood experience that puts young people at risk for poorer health outcomes later in life.\textsuperscript{500} In neighborhoods with high levels of violence and forceful crime suppression strategies, residents experience multi-layered levels of stress, from the violence itself and also through fear of negative interactions with authorities\textsuperscript{501,502} and reduced ability to trust the police, other parts of government, and others for safety.\textsuperscript{503}

**Public Safety as a Determinant of Health Equity and Inequity**

There are disproportionately high rates of violence in communities with low-average household incomes and communities of color:

- Neighborhoods with low-average household incomes suffer disproportionately high rates of street violence.\textsuperscript{504}
- American Indian and Alaska Natives communities suffer from a violent crime rate that is greater than the national average.\textsuperscript{505}
- In a majority of U.S. cities, African Americans experience a higher rate of violent crime than their white counterparts.\textsuperscript{506}
- African Americans and Latinos are much more likely than whites to be exposed to shootings and riots.\textsuperscript{507} African American children are 20 times more likely to witness a murder compared to white children.\textsuperscript{508}
- Areas of concentrated poverty that have low housing values and schools with low high-school graduation rates put residents at increased risk of death from homicide.\textsuperscript{509}
- Although national trends show that juvenile arrests have decreased in the last 20 years, Asian American youth are the only group to show an increase in arrests (11.4\%). Asian gangs are the fastest growing street gangs in Los Angeles County.\textsuperscript{510,511}
- In 2014, homicide was the leading cause of death for African Americans, between the ages of 15 and 24, the second-leading cause of death for Latinos, the third-leading cause of death for American Indians and Alaska Natives, and the fourth-leading cause for white and Asian and Pacific Islanders of the same age.\textsuperscript{512} Homicide rates among 10-to-24-year old African American males (48.15 per 100,000), Latino males (9.57 per 100,000) and American Indian, Alaska Native males (13.95 per 100,000) exceed that of white and Asian and Pacific Islander males in the same age group (2.58 and 2.49 per 100,000 respectively).\textsuperscript{513} Approximately two-thirds of all firearm homicides in the U.S. occur in large urban areas, with inner cities as the most impacted by firearm homicides.\textsuperscript{514}
• Death from gun homicide is almost 30 times as likely among black males aged 15 to 19 years compared to their white counterparts.\(^{515}\)

• In 2010, 45% of gun deaths and 46% of gun injuries were among black children and teens, although they comprised only 15% of all children and teens. American Indian or Alaska Native children and teens were 2.4 times more likely to die from guns, and Latino children were 3.3 times more likely to be injured from guns than white children and teens.\(^{516}\)

• Of the 30,136 reported violence-related firearm injuries among youth aged 10 to 24 in 2013, approximately 47% of victims were African American, and only 9% were white.\(^{517}\)

• American Indian or Alaska Native children and teens had the highest rate of gun suicides, nearly twice as high as white children and teens.\(^{518}\)

Nationally, there are a disproportionate number of men of color involved, or with previous involvement in the criminal justice system. Related facts:

• More than 1.7 million children in the U.S. have a parent in prison. For white children, the estimated risk that their mother or father will be imprisoned by the time they turn 14 is one in 25. For black children, the risk is one in four.\(^{519}\) 6.7% of black children had a parent in prison in 2007, whereas 0.9% of white and 2.4% of Latino children did.\(^{520}\)

• Laotian, Thai, Cambodian, Vietnamese and Pacific-Islander young people ages 10 to 24 years old are over-represented in California’s juvenile justice system, and young Asian Americans and Pacific Islanders who have been referred to juvenile hall are more likely to be sent to adult court than any other racial and ethnic group.\(^{521,522}\)

• Communities that have high levels of poverty, unemployment, family disruption and racial isolation are more likely to be places with high incarceration and reentry rates, even when adjusting for crime rate.\(^{523}\) Lack of neighborhood resources makes successful re-entry less likely.\(^{524}\)

**Education**

**Education as a Determinant of Health and Illness**

Education is a significant determinant of health and safety across the lifespan. Generally, higher educational attainment is associated with better overall health outcomes and longer life expectancy for individuals and communities.\(^{525,526,527,528}\) College graduates can expect to live at least five years longer than individuals who have not finished high school.\(^{529}\) The reverse is also true: poor health negatively impacts education. Children with asthma miss school more frequently than children in good health,\(^{530}\) children with poor oral health are also more likely to miss school than their counterparts,\(^{531}\) and students who experience persistent stress or fear have difficulty concentrating and learning.\(^{532}\) Educational attainment has intergenerational impacts. For example, low parental education is associated with lower levels of child educational performance.\(^{533}\) On the other hand, children born into families with highly educated parents are more likely as adults to attain more education and obtain better employment opportunities.\(^{534,535}\) Lastly, education is deeply entwined with other DOHs, such as employment, income and wealth.\(^{536,537,538}\)

Higher education is associated with health-promoting behaviors such as physical activity, obtaining timely healthcare check-ups and screenings, and fewer risk behaviors such as smoking;\(^{539,540,541}\) better disease management behaviors; and improved mental health. Individuals with higher education also display greater willingness to participate in the political process.\(^{542,543,544}\) Conversely, low levels of education are associated with a number of poor health and safety outcomes including cancer, diabetes, cardiovascular disease, hypertension, stroke, and other chronic diseases, as well as maternal depression and violence.\(^{545}\) High-quality education that fosters positive social and emotional development in young people protects against
delinquency. Adolescent risk behaviors, such as underage drug and alcohol use and a sedentary lifestyle, as well as risk behaviors in adulthood, such as smoking and alcohol and drug abuse, are also associated with lower educational attainment.\textsuperscript{546,547,548,549} Additionally, risk behaviors in adulthood, such as smoking and alcohol and drug abuse, are also associated with lower educational attainment. Conversely, high-quality education that fosters positive social-emotional development in young people is a factor of resiliency. Lastly, quality early childhood education in particular has lasting influences on health and is associated with higher educational attainment and increased future occupational opportunities.\textsuperscript{554} Children who participate in high-quality early childhood development (ECD) programs have immediate cognitive gains and better academic achievement.\textsuperscript{555} Some studies have linked ECD interventions with more efficient use of health services, including immunizations, fewer emergency room visits, and overall fewer days spent in the hospital.\textsuperscript{556} Moreover, research suggests that strong ECD is associated with better long-term health outcomes including lower rates of cardiovascular disease, stroke, hypertension, diabetes and depression.\textsuperscript{557}

**Education as a Determinant of Health Equity and Inequity**

Education outcomes are shaped by education access and are differentiated by race/ethnicity, socio-economic status, and other factors.\textsuperscript{558}

Examples of these differences begin with preschool:

- The U.S. has a very low rate of preschool enrollment compared with other industrialized nations. Among children who attend preschool, high-quality programs are least available to children from low- and moderate-income families.\textsuperscript{559}
- Black children who are about 4 years of age are just as likely as white children to be involved in center-based care, but are much more likely to be enrolled in lower-quality day care.\textsuperscript{560}

Examples of difference continuing into primary and secondary school:

- Children from families with low-income and low maternal education have lower reading and math scores in first grade than children with fewer family risk factors.\textsuperscript{561}
- Immigrant youth are at elevated risk for psychosocial risk factors such as alienation from classmates – compromising their academic outcomes.\textsuperscript{562}
- Students with disabilities are more likely to drop out of school than students without disabilities, with students with mental or emotional disabilities at the greatest risk for dropping out.\textsuperscript{563}
- 75% of black and 70% of Latino students graduate from high school compared to 86% of white and 88% of Asian students.\textsuperscript{564}
- More than half of American Indian/Alaska Native and black students (57% and 59%, respectively) in remote rural areas attended high-poverty schools, compared with 10% of white students, 29% of Latino students, 19% of Asian/Pacific Islander students, and 21% of students of two or more races.\textsuperscript{565}
- The percentage of students in high-poverty schools (greater than 30%) more than doubled between 2007 and 2011, jumping from 7% to 16%.\textsuperscript{566}

There are inequities in higher education, as well:

- Latino and African American high school graduates meet college readiness benchmarks in English, reading, mathematics, and science at substantially lower rates than Asian and white Graduates.\textsuperscript{567}
- There is a 14% difference in college graduation rates between the highest and lowest income students born between 1979-1982.\textsuperscript{568}
- Of individuals aged 16 to 24 completing high school or earning GED certificates in the last year, 56% of black students enrolled in a two or four-year college compared with 66% of whites.\textsuperscript{569}
• For the class starting at a four-year college in 2006, only 20% of black students graduated in four years compared to more than 40% of white students.  

• 17% of non-Latino black and 13% of Latino and American Indian or Alaska Native adults were college graduates in the U.S. in 2007, compared to 50% of Asian and 31% of non-Latino white adults.  

• American Indian youth have the lowest high school graduation rate of any racial/ethnic student group – experiencing a 67% graduation rate compared to 80% for all other student groups combined.  

• 75% of black and 70% of Latino students graduate from high school compared to 86% of white and 88% of Asian students.  

Differences in school discipline reflect many inequities:  

• Research from 14 different studies has demonstrated that although whites, blacks, and Latinos have similar rates of infraction in school, white students are only one-half to one-third as likely as blacks and Latino youth to be suspended or expelled.  

• Higher rates of suspensions begin early – during the 2011–12 school year, black students accounted for 18% of the country’s pre-K enrollment, but made up 48% of preschoolers with multiple out-of-school suspensions.  

• Black girls are suspended at higher rates than all other girls and most boys.  

• American Indian and Native-Alaskan students represented less than 1% of students, but 3% of expulsions.  

• American Indian and Native-Alaskan girls were suspended at higher rates than white boys or girls.  

• In the mid-2000s, 72% of African American students attended schools with predominantly students of color, compared to 63% in 1980. Except for white students, attending a segregated school means attending an underfunded school with high concentrations of poverty.  

• During the 2011-2012 school year nearly one in four boys of color, except Latino and Asian American students, with disabilities received an out-of-school suspension. Similarly, one in five girls of color with disabilities received an out-of-school suspension.  

• Economically disadvantaged youth and youth of color are more likely to be suspended and expelled than more affluent and white peers.  

Differences are found in the overall quality of education provided:  

• Poor urban schools have the highest numbers of teachers who are inexperienced or do not have degrees in the subjects they teach.  

• Schools who serve predominately African American students are twice as likely to have teachers with only one or two years of experience than are schools in the same district that serve predominately white students.  

• Urban schools with higher concentrations of black and Latino students offer fewer advanced courses and have lower levels of achievement than schools attended by predominately white students in adjacent suburban school districts.  

• Youth of color are more likely to be taught by inexperienced teachers, go to schools that offer fewer advanced courses and receive harsher discipline than white children.  

• Schools with 90% or more students of color spend $733 less per student per year than schools with 90% or more white students and nationally, school districts serving the most students of color receive 15% per student from state and local sources of funding than do those districts serving the fewest students of color.
Employment

Employment as a Determinant of Health and Illness

Employment – the level or absence of adequate participation in a job and/or workforce, including occupation, unemployment, and underemployment – has many implications for health. Comparing the far ends of the employment spectrum, those who are employed are healthier than those who are unemployed. They have lower stress and depressive symptoms, have a healthier diet, and have lower rates of smoking and alcohol consumption. Unemployment is associated with increased stress, anxiety, and decreased mental health. Unemployed individuals are more than twice as likely as those with full-time jobs to say they are being treated for depression. It is also linked to chronic disease such as coronary heart disease and type II diabetes, as well as higher mortality rates. For example, laid-off workers are 54% more likely to have fair or poor health and 83% more likely to develop a stress-related condition compared to those that remain continuously employed and people that have been unemployed experience a 63% higher risk of death than those who have never been unemployed.

Between full employment and unemployment are a variety of employment circumstances, including underemployment and job instability, each of which impacts health. Underemployment, when people involuntarily work less than full time or are employed in positions that do not fully utilize their skills, is associated with a lower positive self-concept. For example, people who are employed part time in urban areas with high unemployment have worse health outcomes – including diet, alcohol consumption, smoking, physical activity, and depression – than people who are employed full time. Their health is better than those who are unemployed, however. Reduction in pay or reduction in perceived skill utilization, an indicator of underemployment, is related to reduced psychological well-being and perceived health. Contingent work – including part-time, casual, contract, temporary, and self-employment – may have negative impacts on health by creating uncertainty around employment or financial futures and irregularity in employment, or if work environments do not provide an equitable exchange of payments, protections, or rewards for work. These impacts are more apparent when contingent work is not desired. Job instability has consequences for health. For instance, people involved in temporary work currently or in the previous two years’ experience have been shown to have more depressive symptoms and job insecurity – the subjective experience that a worker is threatened by job loss – is associated with reduced mental and physical health.

The nature of the work, how it is organized, and features of worksites can also greatly impact the physical and mental health of workers. Certain work environments are more health-promoting than others. For example, employment offering a living wage, safe working conditions, and job security provides health promoting financial stability, higher feelings of self-worth, social status, and reduced exposure to physical and psychological hazards. Conversely, when workers feel stressed their physical and mental health is negatively impacted. Low-wage workers are more likely to report low control and high work-related demands than those in higher paid positions. This combination of factors creates job strain, which places workers at higher risk of psychiatric morbidity, musculoskeletal symptoms, insomnia, coronary heart disease, and depressive symptoms. People whose work provides less status than would be expected based on their background experience worse physical and functional health, as do workers in lower status positions, generally. Work environments that make workers feel their work is unfair or unjust increase the likelihood that workers take long periods of illness-related absences from work, report higher morbidity, and experience increased mental health problems. Conversely, work that supports creative expression may improve psychological well-being and cognitive function, and reduce stress.

The physical aspects of work and the workplace impact health and safety directly. Particular employment sectors pose greater risks of work-related injury, including air transportation, nursing facilities, work with...
motorized vehicles, trucking services, hospitals, grocery and department stores, and food services. These eight sectors alone account for almost 30% of nonfatal injuries occurring on the job.\textsuperscript{621} Despite making up just 15% of all U.S. workers, operators, fabricators, and laborers suffer nearly 40% of all reported occupational illnesses and injuries.\textsuperscript{622} These injuries are related to physically demanding daily tasks requiring lifting, pushing, or pulling heavy equipment, which can lead to repetitive strain or musculoskeletal injuries.\textsuperscript{623} Industrial and agricultural workers are sometimes exposed to hazardous chemicals or extreme noise, both of which can have long-term health effects, including hearing loss and the development of many forms of cancer.\textsuperscript{624,625} Additionally, office spaces that are poorly ventilated or contain asbestos, lead, or mold have been related to poisoning and serious illnesses\textsuperscript{626} and those involving repetitive work to repetitive strain-related injuries.\textsuperscript{627}

Employment practices, such as short notice, fluctuating hours, lack of schedule control, and “Clopenings”\textsuperscript{11} impact sleeping patterns for workers and make it difficult for workers to plan for their lives outside of work. For example, workers may struggle to advance their education, secure childcare, or establish family routines – such as family meals or bedtimes – that are beneficial to childhood development.\textsuperscript{628} These employment practices also increase work-related stress, which for working parents can detract from their children’s well-being, a consequence that is particularly evident for single-mother families.\textsuperscript{629} Workers with rotating work schedules are more vulnerable to work injuries than those with fixed shifts and experience increased risk of diabetes, cardiovascular disease and all-cause mortality.\textsuperscript{630} Additionally, working more than a 40-hour workweek has been associated with worse self-rated health,\textsuperscript{631} higher rates of injury and illness,\textsuperscript{632} greater alcohol use,\textsuperscript{633} and increased mortality.\textsuperscript{634} Long work hours are associated with an almost 20% increase in mortality.\textsuperscript{635} Specifically, people who work 55 hours or more in a week, regardless of job, experience a 1.3 times higher risk of stroke and 1.13 times higher risk of incident cardiovascular disease.\textsuperscript{636} However, working more than 55 hours per week has only been shown to be associated with an increased odds of developing type II diabetes among workers of low socio-economic status,\textsuperscript{637} thus type of employment and control over hours worked may mediate the impact of working long hours. Lastly, employer-determined contact outside of normal working time has been shown to be associated with increased risk of health impairments and absence from work due to sickness.\textsuperscript{638}

Employment benefits also have direct health implications. First, many Americans receive health insurance through their employer, thus employment is a major determinant of access to quality health systems and services.\textsuperscript{639} Secondly, some employees receive paid sick days, which can help workers recover from illnesses and provide care for sick family members, thereby preventing the spread of communicable disease in the work place and shielding families from the use of expensive hospital care.\textsuperscript{640} Similarly, although the federal Family Medical Leave Act of 1993 allows eligible workers to take up to 12 workweeks of unpaid, job-protected leave for particular medical circumstances, including the birth or adoption of a child, because the benefit is unpaid many workers cannot utilize it. Not having time off from work to after the birth of a child increases stress and the likelihood of maternal depression,\textsuperscript{641} impedes parent-child bonding, slows recovery after childbirth, reduces the likelihood of breastfeeding, and increases infant mortality.\textsuperscript{642} In addition, cognitive development of children greatly benefits if parents are the primary caregiver for the first year of life and that paid or partially paid time off after childbirth encourages a delayed return to work and sustained breastfeeding.\textsuperscript{643}

Community conditions and well-being suffer as a result of the concentration of unemployment.\textsuperscript{644} For example, living in a community with a high level of unemployed residents can increase exposure to violence and crime and in neighborhoods with increased rates of unemployment; rates of low birth weight may be elevated\textsuperscript{646} while adherence to smoking abstinence may be reduced.\textsuperscript{647} High neighborhood unemployment may also

\footnotesize{11} “Clopening” refers to a scheduling practice wherein shift workers are assigned to closing and opening shifts back to back
predict future depressive symptoms. Lastly, higher risk of mortality has been associated with community-level unemployment rates.649

Employment as a Determinant of Health Equity and Inequity

Inequities related to access to employment, job quality, and work environment exist based on race and ethnicity, geography, gender, and income level. Inequities within unemployment include:

- Blacks and Latinos have experienced higher rates of unemployment than whites for more than forty years.649
- Unemployment rates among American Indians are nearly twice the rate of whites and share similar trends with blacks.650
- Black male high school graduates are 70% more likely to experience involuntary unemployment than whites with similar characteristics – this disparity increases with higher levels of education651 and black college graduates under the age of 25 have a 15% unemployment rate compared to 14% for Latinos and 9% for whites.652
- White children live in neighborhoods with lower unemployment rates than black and Latino children.653

Geographic isolation and access to jobs impacts individuals’ ability to secure employment. Inequities within the geographic distribution of jobs include:

- Residents of rural areas and American Indians – many of whom also live on reservations and in rural areas – experience less access to employment opportunities than those in urban areas.654,655
- During the 2000s, the number of jobs within a typical commute distance fell in 60% of major metropolitan areas in the U.S.; however, the loss of proximal jobs was more severe for Latino and black residents with these groups experiencing a -17% and -14% loss of jobs, respectively, as compared to a -6% for white residents. For high-poverty census tracts (poverty rate above 20%) and majority-minority neighborhoods, the loss of jobs was accelerated, as compared to typical suburban neighborhoods. High-poverty tracts experienced a -17% loss of job, majority-minority neighborhoods a -16% loss of job, and typical suburban neighborhood a -7% loss of jobs.656
- The distances between African Americans and job-rich areas are greater than for any other racial group in the U.S.657 Increased commuting time to work has been associated with higher rates of obesity in urban areas.658

Discrimination based on gender or race in the workplace is a source of chronic stress and can have short and long-term health consequences, including elevated blood pressure and increased rates of arthritis or heart disease.659 People of color also experience more job instability, worse or less-safe working conditions, lower job quality, and barriers to high-status jobs:

- People of color are more likely to experience unstable employment, remain unemployed for longer periods, and are more likely than whites to get laid off or to be unemployed/underemployed during an economic downturn.660
- Blacks are more likely than Latinos or whites to work nonstandard hours, including rotating shifts.661
- Those in the lowest income level experience the most irregular shifts, which is associated with working longer weekly hours.662
- 17% of U.S. workers experience irregular work schedules – people of color and non-unionized workers experience these schedules at higher rates.663
- 67% of Asian American workers and 60% of white workers have paid sick days compared to just 56% of black and 42% of Latino workers.664
• Among hotel housekeepers, Latino workers experienced almost double the rate of injury as their white counterparts.\textsuperscript{665} In fact, Latino workers experience higher rates of occupational injury generally than their non-Latino counterparts.\textsuperscript{666}

• Despite higher levels of educational achievement and employment in higher-skilled and high paying occupations, blacks and Latinos continue to comprise a smaller proportion of the professional or managerial workforce and their earnings remain lower compared to white and Asian American workers.\textsuperscript{667}

• Workers of color are overrepresented in the service sector, low-paying jobs, and work with increased exposures to occupational hazards.\textsuperscript{668}

• The working poor population (defined as an individual who is employed full-time yet does not earn enough income to cover basic living necessities) is disproportionately comprised of people of color, with rates of working-poor twice as high among blacks or Latinos as among whites or Asian Americans.\textsuperscript{669}

Heath insurance offered through employment varies by socioeconomic status and race, as do access to other employment benefits:

• Only 42.9\% of people who did not graduate from high school worked for an employer that offered health insurance in 2010, while 78.9\% of people with a college degree did.\textsuperscript{670}

• 56.4\% of Latino workers were employed at firms the offered health insurance in 2010, while 73.3\% of white workers and 76.0\% of black workers were.\textsuperscript{671}

• 9.2\% of all employees in the U.S. experience an unmet need for leave related to a new child and among those who needed but do not take leave (for any eligible medical condition), 46\% report they do not take it because they cannot afford it.\textsuperscript{672}

Women face unique challenges and barriers to employment that can result in worse health outcomes for themselves and their families. Mothers are the fastest-growing segment of the U.S. labor force and approximately 70\% of employed mothers with children younger than 3 years’ work full time.\textsuperscript{673} Inequities women face in employment, not only affects them, but also their families.

• Women are more likely to do contingent, part-time, temporary or contract work, jobs have fewer workplace protections and benefits.\textsuperscript{674}

• Only 70.6\% of working mothers took maternity leave overall between 2006-2008. Latino women were less likely than non-Latino black or white women (59.5\% versus 68.7\% and 73.0\%, respectively).\textsuperscript{675}

• Low-income women, among whom African American and Latino women are overrepresented, are more likely than their higher-income counterparts to return to work earlier and to be engaged in jobs that make it challenging for them to continue breastfeeding.\textsuperscript{676}

There are approximately 6.5 million undocumented workers in the U.S., and they commonly work in agriculture, manufacturing, construction, services, and restaurants.\textsuperscript{677} Large numbers of migrants, particularly undocumented migrants, experience unprotected and poor conditions, often in the “informal” employment sector.\textsuperscript{678,679} Latinos account for almost half of all farm workers and laborers.\textsuperscript{680} The consequences include:

• The average life expectancy of migrant and seasonal farm worker is 49 years compared to 78 years for the general population.\textsuperscript{681}

• In 2011, agricultural workers experiences an occupational fatality rate that was 7 times higher than that for all workers in private industry at 24.9 deaths per 100,000, as compared to 3.5 deaths per 100,000.\textsuperscript{682}

• Farm workers are at greater risk of mental illness – reporting depressive and anxious feelings associated with rigid work demands and low income.\textsuperscript{683}
Income and Wealth

Income and Wealth as a Determinant of Health and Illness

The relationship between income and wealth and health is well studied and supported by research. Following a stepwise pattern gradient pattern, as income increases, so does health. More specifically, the higher the income, the less likely any group of people are to report poor or fair health, or experience limitations from a chronic disease. In the U.S., individuals with incomes less than 100% of the federal poverty level can expect to live a shorter life by at least six-and-a-half years than individuals with incomes at 400% or more of the federal poverty level. Wealth, or economic assets accumulated over time, follows a similar pattern. Income and wealth are of even greater importance in places where healthcare, childcare, and education must be paid for by the individual, such as in the U.S. In these cases, a lower income has implications beyond material goods and can greatly impact other DOH such as education, housing, and access to quality of health systems and services. However, even in countries with universal access to healthcare, income and wealth and health still follow a gradient. It is important to note that though health can affect income and wealth, for example because an ill person cannot work, this is not the primary reason for the relationship between them.

Higher incomes allow people to access and pay for a wider array of goods and services, including healthy foods, safe housing, childcare, transportation, and healthcare and insurance. People with the lowest incomes, or those living in poverty, may be financially unable to purchase essential goods and may experience material deprivation in the form of hunger or homelessness as a result. In the U.S., 14.5% of people and 19.9% of children under 18 were in poverty in 2013; 14% of households were food insecure, and in 2014 nearly 600,000 people were homeless on any given night. Material deprivation caused by low financial resources is but one mechanism through which health is affected by income and wealth. Wealth and income also provide a peace of mind and a reduced stress load that stem from not worrying about paying for immediate bills, or surviving a significant financial shock. People with high incomes are more optimistic about the future. Conversely, for people facing financial hardship the continual, chronic stress of uncertainty can increase the risk for myriad health problems, including reduced immune response, increased likelihood of a preterm birth, poor sleep, cardiovascular problems, and changes to health behaviors such as eating or smoking. Financial debt has been associated with reduced satisfaction with health, including mental health. In addition, social status or position that accompanies income and wealth may have a unique impact on health. Income rank, an indication of relative income, has been shown to impact health outcomes, including allostatic load, long-standing illness, ratings of health, physical functioning, role limitations, and pain.

Research has also shown that there are certain critical ages when financial hardship and its health effects are amplified, such as during gestation and from birth to age five. Rates of low birth weight are highest among infants born to families with low incomes and the impacts of adverse experiences related to growing up in poverty can impact individuals well into their adulthood. Lower-income children experience higher rates of asthma, heart conditions, hearing problems, digestive disorders and elevated blood lead levels, health outcomes which may be due in part to the interrelationships between income and wealth and other DOH, for example such as housing, education, or built/physical environment. Children who grow up in poverty also display reduced brain development, school readiness, and achievement on standardized tests. People who experience low socioeconomic conditions as children have higher mortality risk for all causes as adults and

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684 In 2015, the federal poverty guideline for a family of four was $24,250.
compared to people whose families had incomes of at least twice the poverty line during their childhood, people who grew up in poverty are twice as likely to report poor health as adults.\textsuperscript{705} People who experienced poverty in very early childhood are more likely to experience early-adult hypertension, arthritis, and limitations on activities of daily living.\textsuperscript{706} In addition, people who experience recurring poverty during childhood and adolescence are 3.2 times more likely to be anxious or depressed in emerging and young adulthood\textsuperscript{707} and children who grow up in poverty from birth to age 9 are more likely to exhibit externalizing symptoms as emerging adults.\textsuperscript{708}

The distribution of incomes within a group is also important to health. Income inequality is itself a driver of poor health. Economies with higher income inequality experience higher death rates and higher rates of mental illness, infant mortality, teenage birth, and obesity.\textsuperscript{709} Additionally, in more unequal societies, everyone’s health suffers: those at the top of the economic ladder in more unequal societies experience worse health outcomes than those at the top of the economic ladder in more equal societies.\textsuperscript{710} The U.S. claims the fourth highest greatest income inequality among Organisation for Economic Co-operation and Development (OECD)\textsuperscript{***} member nations, outranking only Turkey, Mexico, and Chile.\textsuperscript{711} The wealth gap in the U.S. is even more extreme: the portion of overall wealth that the top 1\% of wealth holders possesses is twice the share of overall income that the top 1\% of earners possesses.\textsuperscript{712} In 2012, the top 0.1\% of wealth holders possessed 22\% of all wealth in the U.S.\textsuperscript{713} while the top 1\% held about 40\% of all wealth.\textsuperscript{714} Earners in the top 1\% took home 14.6\% of total pre-tax income in the U.S.\textsuperscript{715}

**Income and Wealth as a Determinant of Health Equity and Inequity**

In the U.S., annual earnings (income) and wealth correlate closely with race and ethnicity; with people of color typically occupying the lower rungs of both the income and wealth ladders.\textsuperscript{716} Related facts:

- At each level of educational attainment, blacks, Asians, and Mexican Americans (the largest of the Latino ethnic groups, representing about 66\% of Latinos in the U.S.) consistently have lower incomes and accumulated wealth than whites. For example, one study showed that blacks with a BA earned an average of $13,225 less annually than whites with the same education; Latinos with a BA earned an average of $15,031 less than whites with the same education; Asians with a BA earned $5,276 less.\textsuperscript{717}
- In 2014, black families earned 59 cents for every dollar that white families earned. Latino families fared only a little better, earning 671 cents for every dollar earned by a white family.\textsuperscript{718}
- People of color also experience disparities in earnings following incarceration – with wages growing 21\% slower for black people who were formerly incarcerated compared to white people who were formerly incarcerated.\textsuperscript{719}
- Rates of child poverty are three to four times greater for Latino and African American children when compared to white children.\textsuperscript{720}
- 28.4\% of American Indians and Alaska Natives were in poverty in 2010, as compared to 15.3\% of residents for the nation as a whole.\textsuperscript{721}
- Some Asian populations and Native Hawaiians and other Pacific Islanders have higher rates of poverty than whites.\textsuperscript{722}
- In 2013, white families had 13 times more wealth than black households and 10 times more wealth than Latino families.\textsuperscript{723}
- About one-third of African American households and one-quarter of Latino households have zero or negative net wealth.\textsuperscript{724}
- In the third quarter of 2015, the homeownership rate for non-Latino whites was 71.9\%, while for blacks it was 42.4\%, and for Latino it was 46.1\%.\textsuperscript{725} White children are much more likely to live in

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\*\*\* Member states are typically high-income economies and are regarded as developed countries.
Individuals and families also experience economic disparities due to gender inequality in pay. This greatly impacts the incomes and wealth of families as women are increasingly the sole or primary source of income for their families: in 2013, 40% of all households with children under 18 had a woman as the sole or primary earner. Furthermore, about one-sixth of white children, one-fourth of Latino children, and one-half of black children live in single mother families.

Women earn less on average than men regardless of educational attainment, credentials, test scores and work experience. In 2010, women working full-time year-round made 77 cents for every dollar men made working the same amount. Women in every race and ethnic group have lower earnings than men of the same race or ethnicity, black and Latino women earn less than white women when compared to white men. In 2014, while white women earned 82.5% of white men’s incomes, black women earned 68.1%, and Latino women earned 61.1%.

Poverty rates for women of all races and ethnicities are greater than for men, with 14.7% of women in 2013 living in poverty compared to 11.0% of men. Nearly four in ten families with children headed by a single woman are in poverty and nearly six in ten children in poverty are members of families headed by single women.

Lastly, economic mobility is not as common in the U.S. as the American dream would suggest, nor even as common as in most European countries, meaning that one’s economic situation at birth largely impacts one’s lifelong economic realities and that income and wealth gradients are unlikely to shift:

- While over half of Americans had higher family incomes in the early 2000s than their parents had in the 1960s, only about one third of people are upwardly mobile (surpassing their parents’ income and economic ranking by one or more quintiles), while another third is downwardly mobile (making less than their parents and failing to rise above their parents’ economic position). Those in the middle class are just as likely to fall on the economic ladder as they are to climb, while those at the top have experienced the greatest gains in income.

Black families experience less mobility than white families: while only 23% of white.

**Access to Quality Health Systems and Services**

**Access to Quality Health Systems and Services as a Determinant of Health and Illness**

Healthcare expenditures are growing despite exponential investments and revenue in healthcare. The growing investment in healthcare has produced longer life expectancy for those who become sick or injured as new treatments and technologies continue to improve outcomes across the spectrum of care. Advances in medical practices contributed to a 41 percent reduction in mortality for cardiovascular disease, an 18 percent reduction for cancer, and a 12 percent reduction for respiratory disease; however the U.S. is beginning to lose these life expectancy gains derived from clinical innovation as a result of preventable chronic disease and injury. Despite our system’s reputation as the “best in the world”, the health system in the United States is focused on after-the-fact treatment of illnesses and injuries. This is a lost opportunity to advance the health of the U.S. population by preventing illness and injury. In follow up to the breakthrough analysis, by
McGinnis and Foege in 1993, Mokdad, Marks, Stroup, and Gerberding confirmed that approximately 50% of premature deaths continue to be preventable. This analysis highlighted the pivotal role that unhealthy behaviors, social and economic factors, avoidable exposures to toxins and infectious agents play in driving these deaths. The most effective prevention initiatives build on research by McGinnis and Foege and Mokdad, Marks, Stroup, and Gerberding, identifying the factors in the community environment that contribute to behaviors and exposures that produce unequal access to quality health systems and services.

Prevention successes in fields as diverse as tobacco control, lead poisoning, immunizations, traffic safety, violence prevention, and healthy food and activity environments have yielded a methodology of quality prevention. At the heart of quality prevention is a focus on analyzing the risk and resilience factors in communities that are shaping specific mental health and physical health concerns. This perspective is critical for quality health systems. Effective prevention initiatives utilize comprehensive strategies to address these community factors, including multi-sector collaboration and changing institutional and public policies to improve the socio-cultural, physical/built and economic environments that are shaping poor health. Importantly, while improving community environments can prevent illness and injury, these same strategies are the best supports for helping patients improve and maintain their well-being after illness and injury, including those with chronic diseases which are both a major health concern and a major driver of healthcare costs. Largely preventable and highly manageable chronic diseases account for 75 cents of every dollar we spend on healthcare in the U.S. In contrast, we spend less than 5 cents on prevention, even though the World Health Organization and the Centers for Disease Control and Prevention have estimated that 80 percent of heart disease and type-2 diabetes, and 40 percent of cancers, could be prevented by doing three things: exercising more, eating better and avoiding tobacco.

Ongoing challenges with inadequate health insurance coverage and access to care continue to exacerbate health problems. In 2014, 10.4 percent of the non-elderly adults were uninsured. The emergency department has become the default primary care provider for many without adequate access to a usual source of care. Not having access to a usual source of care has resulted in unmet health needs and delays in the receipt of timely and appropriate care to prevent diseases and conditions from worsening. Approximately 10 percent of all uninsured in-patient hospital stays were for potentially preventable conditions. Among uninsured in-patient hospital stays, almost 7 percent were attributed to potentially preventable chronic diseases.

Beyond insurance coverage, out-of-pocket costs for individuals and families continue to grow, burdening individuals and families to decide between meeting basic needs or paying medical costs. According to a Commonwealth Fund Health Care affordability study (2015), two out of five working-age adults with insurance who live below the federal poverty line spent 5 percent or more of their income on deductibles, copayments, or other out-of-pocket healthcare costs. Prescription drug costs represent almost 16 percent of total healthcare spending for a family of four. The underspending in primary care, public health and prevention continues to impact the health system’s capacity to improve our comparative rank related to measures like life expectancy and infant mortality.

The failure to implement prevention efforts can take a toll on the health of the nation as we see more and more preventable conditions such as diabetes becoming serious treatment concerns requiring significant primary and specialty care healthcare services. For example, between 2005 and 2010, the rate of hospital admissions for long term diabetes complications was 116 admissions per 100,000. Some of these hospitalizations for diabetes can prevented in the first place through access to timely primary care services and community prevention. In 2006, primary care represented 57 percent of all patient visits yet only represented 6-7 percent of total healthcare spending for Medicare beneficiaries. This percentage is likely lower for
the rest of the population. Primary care is important for early detection and disease management. Primary care access along with quality, community level prevention is critical to reduce the accelerated costs and overutilization the health system is currently experiencing.

Healthcare treatment, while successful for certain ailments, also contributes to additional health problems. Iatrogenics are conditions or medical errors inadvertently induced by a provider, medical treatment or diagnostic procedure. Starfield found that iatrogenic causes served as the third leading cause of death after heart disease and cancer in the U.S. Among Medicare patients, the U.S. Department of Health and Human Services Office of Inspector General said that bad hospital care contributed to the deaths of 180,000 patients in Medicare alone in a given year. For example, hospital acquired conditions (HACs) are costly and dangerous events that occur while patients are receive care for another condition during a hospital stay. In 2013, almost 10 percent of hospitalized patients experienced one or more HACs. Adverse drug experiences (ADEs) are the most common iatrogenic illness. Roughly 750,000 people are injured or die each year in hospitals from ADEs, at a cost of up to $136.8 billion. Investing in prevention and reducing the need for clinical treatment or hospitalization in the first place reduces the likelihood of iatrogenic conditions.

Health professionals are valued as credible sources on health issues, and therefore they influence the public and policymakers’ perspectives about how to solve population-wide health problems. They could play an important role in advancing greater attention to equity and prevention and in some cases have done so. However, while many clinicians express awareness of the “social determinants” on the health of their patients, most healthcare professionals and systems leaders are less familiar with what specific actions they might take to ameliorate such conditions for their patients and for the communities in which their patients live. They lack the specific lessons learned about effective prevention strategies and they are unsure how to leverage their role to help improve the broader community context for their patients. Further, the current structure and financing of the health system and training of providers direct focus towards delivery of care one individual at a time and there are no standard practices in place to leverage the interactions with individual patients to help identify and improve the community conditions that contribute to illness and injury across the community as a whole. The rapid pace of office visits has diminished the art of medicine that encouraged understanding the life circumstances of patients as important influences on their health.

While there is a huge investment in healthcare services and clinical research, there are very limited investments in public health. Public health in theory should have adequate and skilled staff to facilitate strategy development and implementation of upstream community factors that shape health outcomes while ensuring the essential services are met. The narrow ailment or condition emphasis of many of federal grant funding opportunities has continued to influence how public health is structured. When funding is limited to legislatively dictated priorities, public health practitioners align work with current trends and special interests rather than the multi-faceted root causes of illness and injury. Beyond the Prevention and Public Health Fund and block grants, much of public health-related funding is compartmentalized by body part, condition, or incident, focusing on individual care of a defined population rather than broader community-wide health and prevention.

**Access to Quality Health Systems and Services as a Determinant of Health Equity and Inequity**

The failure to establish a community centered health system, where healthcare and public health work in partnership with community to prevent illness and injury for all residents in a geographic areas, contributes to health inequities. Communities that have been economically disadvantaged and communities of color tend to have the worst health outcomes in the United States, with shorter life expectancy, and higher rates of illness...
and injury for many health conditions. As George Albee has said, “no epidemic has been resolved by attention solely to the impacted individually.” In the early 1970’s, Dr. Albee highlighted the impact of poverty, racism, child abuse, and unemployment among other social ills as key drivers of poor mental health. This analysis applies to physical health as well. These structural drivers play out a community level, as communities of color and communities with a high concentration of people with limited economic resources do not have the same opportunities found in wealthier and white communities. These community determinants of health are the major drivers of inequalities in health. Therefore treating one person at a time will not change the current burden of health inequities among people of color and people with limited economic resources.

These health inequities are worsened by inadequate access to healthcare when people do become sick or injured. Access to quality health systems and services is not guaranteed by health insurance but is rather shaped by geographic accessibility (e.g. location, transportation costs), affordability (e.g. household resources, costs of services), availability (e.g. demand, public health programs, healthcare workforce, waiting time), and acceptability (e.g. characteristics of health services, attitude and expectations, community and cultural preferences, attitudes and norms, etc.). Communities of color experience lower quality of health services, and are less likely to receive even routine medical care relative to white Americans. This contributes to unmet healthcare needs, delays in care and premature mortality.

- Forty-six percent of insured adults earning $23,000 or less delayed or skipped needed care because of the cost of copayments or coinsurance. Problems with the affordability of care were distinct among adults with lower family income regardless of health issues.

- Uninsured cancer patients are more likely to be diagnosed at late state and have shorter survival and uninsured trauma patients are more likely to die.

- Patients of color tend to receive better interpersonal care from providers of their own race or ethnicity, particularly in primary care and mental health settings.

- The patient-provider interaction and health outcomes can be influenced by cultural unfamiliarity between patients and providers, historical mistrust, experiences with discrimination and racism misunderstanding of provider directions, poor previous experiences with healthcare or simply a lack of understanding of how to appropriately use health systems and services.

Some local public health departments, such as Louisville and Seattle King County, are supporting government promotion of comprehensive health equity strategies that include community collaboration, public policy and systems changes to improve community conditions. This is a growing capacity within public health that needs investment to build capacity and strengthen the level of effort in order to have deeper impacts and expand to more communities. Yet combined federal, state and local public health funding has been below pre-recession levels and federal spending alone has remained relatively flat.

- Public health budgets at the local and state level have experienced significant cuts for multiple consecutive years.

- This contrast with public opinion. Over 70 percent of Americans favored an increased investment in community health and disease prevention.
Appendix C: Sample Policies, Practices and Programs

These charts provide an overview of sample public or private policies, practices and programs along with community-level impacts that improve health and safety for each of the determinants of health can help promote health equity. The examples named throughout the charts are from the following sources:

* UCLA: Center for Health Advancement
** CDC: Practitioner’s Guide for Health Equity
¥ Prevention Institute: THRIVE Clusters and factors

### Social- Cultural Environment

<table>
<thead>
<tr>
<th>Socio-cultural:</th>
<th>Physical/Built:</th>
<th>Economic/Education:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Promote civic engagement ¥</td>
<td>• Design strategies to encourage social connection and inclusion ¥</td>
<td>• Work place and school practices and policies to encourage youth and family engagement and support ¥</td>
</tr>
<tr>
<td>• Incorporate community building practices ¥</td>
<td>• Transit infrastructure practices to connect people ¥</td>
<td>• Work place and school practices and policies to encourage diversity, inclusion and healthy norms ¥</td>
</tr>
<tr>
<td>• Engage policymakers and opinion leaders in promoting social cohesion and healthy norms ¥</td>
<td>• Joint use agreements **</td>
<td></td>
</tr>
<tr>
<td>• Engage the faith sector in policy/practice change ¥</td>
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</table>

### Built/Physical Environment

<table>
<thead>
<tr>
<th>Socio-cultural:</th>
<th>Physical/Built:</th>
<th>Economic/Education:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Breastfeeding practices and policies **</td>
<td>• ‘Harmony Project’*</td>
<td>• Healthy food in school, afterschool and early care and education environments **</td>
</tr>
<tr>
<td></td>
<td>• Streetscape design*</td>
<td>• Physical activity opportunities in school, afterschool, and early education care and education settings **</td>
</tr>
<tr>
<td></td>
<td>• Multi-component ground water management*</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Smoke-free policies **</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Smoke-free multi-unit housing policies **</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Point of sale strategies to address access and exposure to tobacco products **</td>
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</tr>
<tr>
<td></td>
<td>• Community food retail environment **</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Healthy restaurants and catering trucks **</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Food access through land use planning and policies **</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Joint use agreements **</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Safe and accessible streets for all users **</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Trails and pathways to enhance recreation and active transportation **</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Neighborhood development that connects community resources to transit **</td>
<td></td>
</tr>
</tbody>
</table>
### Housing Sample Public or Private Policies, Practices and Programs

<table>
<thead>
<tr>
<th>Socio-cultural:</th>
<th>Physical/Built:</th>
<th>Economic/Education:</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Form a residents’ association for grievances and solutions¥</td>
<td>- Lead abatement*</td>
<td>- Tenant-based rental assistance*</td>
</tr>
<tr>
<td>- Educate residents on informing housing development¥</td>
<td>- Building code enforcement*</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Home-based multi-component asthma interventions*</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Smoke-free multi-unit housing policies**</td>
<td></td>
</tr>
</tbody>
</table>

### Public Safety Sample Public or Private Policies, Practices and Programs

<table>
<thead>
<tr>
<th>Socio-cultural:</th>
<th>Physical/Built:</th>
<th>Economic/Education:</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Nurse-family partnership*</td>
<td>- Alcohol availability reduction policies*</td>
<td>- Consistent school discipline practices for all students**</td>
</tr>
<tr>
<td></td>
<td>- Crime Prevention through Environmental Design**</td>
<td></td>
</tr>
</tbody>
</table>

### Cross-cutting:

- Mental health courts;*
- Cure Violence**
- Community policing**

### Education Sample Public or Private Policies, Practices and Programs

<table>
<thead>
<tr>
<th>Socio-cultural:</th>
<th>Physical/Built:</th>
<th>Economic/Education:</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Mentoring high school grad*</td>
<td>- Joint use agreements**</td>
<td>- Universal pre-kindergarten*</td>
</tr>
<tr>
<td></td>
<td>- Libraries providing cards to all public school students¥</td>
<td>- Reduce kindergarten class*</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Targeting truancy*</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Ensure school curriculums reflect community employment needs¥</td>
</tr>
</tbody>
</table>
### Employment Sample Public or Private Policies, Practices and Programs

<table>
<thead>
<tr>
<th>Socio-cultural:</th>
<th>Physical/Built:</th>
<th>Economic/Education:</th>
</tr>
</thead>
</table>
| • Businesses adopt local-hire policies to create community employment | • Develop neighborhoods so that housing, jobs, and community resources are connected | • Community employment training*  
• Focus Workforce Investment Act Board priorities in communities†  
• Enable business incubators in areas with high employment needs† |

### Income & Wealth Sample Public or Private Policies, Practices and Programs

<table>
<thead>
<tr>
<th>Socio-cultural:</th>
<th>Physical/Built:</th>
<th>Economic/Education:</th>
</tr>
</thead>
</table>
|                 |                 | • Enact living wage policies ¥  
• Increase minimum wage*  
• Increase earned income* |

### Access to Quality Health Systems & Services

<table>
<thead>
<tr>
<th>Socio-cultural:</th>
<th>Physical/Built:</th>
<th>Economic/Education:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Peer support, life skills and care management coaching**</td>
<td>• Locate services in close proximity to affordable public transportation options**</td>
<td>• Range of options in health careers (CHW, Peer Specialists, public health, EMS, etc)**</td>
</tr>
</tbody>
</table>

| Cross-cutting: | |
|----------------|• Increased access to cessation resources through decreased copays** |
Appendix D: Health Equity Principles

- Understand and account for the historical forces that have left a legacy of racism and segregation, as well as structural and institutional factors. This is key to enacting positive structural changes.

- Acknowledge the cumulative impact of stressful experiences and environments. For some families, poverty lasts a lifetime and even crosses generations, leaving its family members with few opportunities to make healthful decisions. Continued exposure to racism and discrimination may in and of itself exert a great toll on both physical and mental health.

- Recognize the role of privilege in contributing to disparities in health outcomes and acknowledge that policies have afforded privilege to some groups at the expense of others.

- Encourage meaningful public participation with attention to outreach, follow-through, language, inclusion, and cultural understanding. Government and private funding agencies should actively support efforts to build resident capacity to engage. Foster civic engagement.

- Adopt an overall approach that recognizes the cumulative impact of multiple stressors and focuses on changing community conditions, not blaming individuals or groups for their disadvantaged status.

- Strengthen the social fabric of neighborhoods. Residents need to be connected and supported and to feel empowered to improve the safety and well-being of their families. All residents need a sense of belonging, dignity, and hope.

- Promote equity solutions that address urgent survival issues for low-income people and people of color, while simultaneously responding to national and international concerns, such as the global economy, climate change, U.S. foreign policy, and immigration reform.

- Address the developmental needs and transitions of all age groups. While infants, children, youth, adults, and elderly require age-appropriate strategies, the largest investments should be in early childhood, which establishes the foundation for adult health.

- Work across multiple sectors of government and society in order to make the necessary structural changes. Such work should be in partnership with community advocacy groups that continue to pursue a more equitable society.

- Measure and monitor the impact of social policy on health and safety to ensure equity goals are being accomplished. Institute systems to track governmental spending by neighborhood. Monitor changes in health equity over time and place to help identify the impact of adverse policies and practices.

- Enable groups heavily impacted by inequities to have a voice in identifying helpful policies and in holding government accountable for implementing them.

- Recognize that eliminating inequities provides a huge opportunity to invest in community. Inequity among us is not acceptable, and we all stand to gain by eliminating it.

- Efforts should build on the strengths and assets of communities, recognizing that communities are resilient and have a strong history of making change.

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Appendix E: Multi-sector Systems and Key Sectors Mapped onto the COH Action Framework by Determinant of Health

**Social-Cultural Environment**

- Multi-Sector System
  1) Thriving Communities: Community Driven Solutions for Health Equity
  2) Health Equity by Design: Healthy Land Use and Planning
  3) Housing Choice to Build Opportunity
  4) Safe Communities through Preventing Violence
  5) Building a Cradle to Career Pipeline

- Sectors
  - Education
  - Housing
  - Human/Social Services
  - Justice
  - Land Use and Management
  - Public Health

**Outcomes**

- Improved population health, well-being and equity

**Built/Physical Environment**

- Multi-Sector System
  1) Thriving Communities: Community Driven Solutions for Health Equity
  2) Health Equity by Design: Healthy Land Use and Planning
  3) Active Transportation for Health and Safety
  4) Housing Choice to Build Opportunity
  5) Sustainable Food System
  6) Safe Communities through Preventing Violence

- Sectors
  - Agriculture
  - Banking/Finance
  - Business/Industry
  - Housing
  - Land Use and Management
  - Public Health
  - Transportation

**Outcomes**

- Improved population health, well-being and equity
Countering the Production of Inequities to Achieve an Equitable Culture of Health
Countering the Production of Inequities to Achieve an Equitable Culture of Health
Countering the Production of Inequities to Achieve an Equitable Culture of Health
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