MULTISTAKEHOLDER INPUT ON A NATIONAL PRIORITY

Improving Population Health by Working with Communities: Action Guide 3.0

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NATIONAL QUALITY FORUM

This final version of the *Action Guide* incorporates input from a range of groups working to improve population health who field tested earlier versions of this *Guide*. This report is funded by the Department of Health and Human Services under contract HHSM-500-2012-00009I Task Order HHSM-500-T0004.

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The Action Guide aligns to the National Quality Strategy, which sets forth three aims, six priorities, and nine levers to improve health and healthcare for all Americans.

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CONTENTS

EXECUTIVE SUMMARY 2

WHY FOCUS ON IMPROVING POPULATION HEALTH? 3

WHAT IS THIS GUIDE? 7

HOW TO USE THE GUIDE 8

IMPORTANT WORDS WITH CLEAR DEFINITIONS 9

ACTION GUIDE KEY ELEMENTS CHECKLIST 11

TEN KEY ELEMENTS: OVERVIEW 12

Element 1: Collaborative Self-Assessment 12
Element 2: Leadership Across the Region and Within Organizations 14
Element 3: Audience-Specific Strategic Communication 16
Element 4: A Community Health Needs Assessment and Asset Mapping Process 18
Element 5: An Organizational Planning and Priority-Setting Process 21
Element 6: An Agreed-Upon, Prioritized Set of Health Improvement Activities 25
Element 7: Selection and Use of Measures and Performance Targets 28
Element 8: Joint Reporting on Progress Toward Achieving Intended Results 34
Element 9: Indications of Scalability 35
Element 10: A Plan for Sustainability 36

CONCLUSION 38

APPENDIX A: Methodological Approach **41**

APPENDIX B: Links to Helpful Resources **42**

APPENDIX C: Measures **47**

APPENDIX D: Data Sources **50**

APPENDIX E: General Resources/Tools **52**

APPENDIX F: Population Health Field Testing Group Profiles **56**

APPENDIX G: Current and Former Population Health Framework Committee Roster **76**

APPENDIX H: Population Health Field Testing Groups **77**

APPENDIX I: Federal Partners **78**

APPENDIX J: Current and Former Project Staff **79**

EXECUTIVE SUMMARY

The United States ranks lower than many other developed nations on health outcomes, faces unsustainable healthcare costs, and continues to struggle with significant health disparities. To address these issues, the **National Quality Strategy** is driving action to foster healthier people and communities, better healthcare, and more affordable care. Improving population health by working together is an essential part of the solution. In collaboration with a multistakeholder Committee and 10 groups at the regional and community levels working on population health improvement across the country, the National Quality Forum developed the *Action Guide* with funding from the Department of Health and Human Services.

The *Action Guide* is a framework to help multisector groups work together to improve population health by addressing 10 interrelated elements for success and using the related resources as needed. Like a "how-to" manual, the *Action Guide* is organized by these 10 elements and contains definitions, recommendations, practical examples, and a range of resources to help communities achieve their shared goals and make lasting improvements in population health. It is intentionally brief and written in plain language to be as accessible as possible for all types of stakeholders at the local, state, regional, and national levels to take action.

The *Action Guide's* 10 key elements are:

- Collaborative Self-Assessment
- Leadership Across the Region and Within Organizations
- Audience-Specific Strategic Communication
- A Community Health Needs Assessment and Asset Mapping Process
- An Organizational Planning and Priority-Setting Process
- An Agreed-Upon, Prioritized Set of Health Improvement Activities
- Selection and Use of Measures and Performance Targets
- Joint Reporting on Progress Toward Achieving Intended Results
- Indications of Scalability
- A Plan for Sustainability

WHY FOCUS ON IMPROVING POPULATION HEALTH?

The United States has relatively poor overall health outcomes compared to many other developed nations. We face unsustainable healthcare costs, and we continue to grapple with significant disparities in health status. To address these needs, the **National Quality Strategy** (NQS) is driving action to foster healthier people and communities, better healthcare, and more affordable care. The NQS recognizes that improving population health through collaborative efforts is an essential part of the solution. No single type of organization can effectively address the health of individuals, communities, and the total population. Public health agencies, the vast healthcare sector, and many other contributors are all critically important, as health is the result of many complex determinants and requires coordination and partnership among many stakeholders.

The ways in which partners come together to improve health can take many forms, such as a local coalition involving leaders from businesses, community service organizations, healthcare institutions, health plans, and a public health department; diverse governmental agencies working more closely toward mutual objectives; or a large multistakeholder group taking action across counties or a state. There is no one solution, but there are lessons to be learned from research and experience.

Medical care has a relatively small influence on overall health when compared with behaviors such as smoking and poor diet, physical environmental hazards such as polluted air and unsafe roadways, and social factors like unemployment, low educational achievement, and poverty.[1] Sustained population health improvement requires coordinated efforts because the issues are wide-ranging and the pressure to improve health and reduce healthcare costs is tremendous.

Public health professionals have focused on population health improvement for many years at the tribal, local, state, and national levels. In the public health system, there are different levels of capacities and resources, skill sets, and coordination with partner organizations. The potential for accreditation is an important development to advance the effectiveness of public health agencies in fulfilling their mission.

For example, of the 11 areas in which accredited public health agencies are currently held accountable, at least four get to the heart of population health improvement: monitor health status and understand health issues; protect people from health problems and health hazards; give people information they need to make healthy choices; and engage the community to identify and solve health problems.[2]

Healthcare providers, health systems, and health plans also have a responsibility to improve health outcomes. As value-based purchasing, performance measurement, and other incentives drive the move from "volume to value," healthcare providers are increasingly taking an active role in promoting healthy populations, rather than simply engaging with individuals when they are injured or sick. Making this shift is almost countercultural for some in the healthcare system, as American society values personal independence and responsibility, and can be skeptical about coordinated efforts involving public and private organizations.[3] But the pressure to move in this direction is increasing.

Many factors influence health and need to be addressed in a coordinated way across multiple sectors. Working together, much more can be accomplished than any one person or organization can do alone.

Fortunately, many hospitals, provider groups, health plans, and other healthcare stakeholders have a history and mission of responding to the broader needs of communities and vulnerable populations, and can share lessons learned from their experiences. For example, many health plans routinely engage in population health management as they focus on improving the health of members or enrollees with chronic conditions. In addition, family physicians often consider the social and physical environments in which their patients live and work to help inform their approaches to improving health outcomes. Integration of primary care and public health presents increasing opportunities for family physicians and patient-centered medical homes to partner with community resources and advocate for policies and interventions aimed at influencing social determinants of health and improving health outcomes.[4]

Beyond the healthcare and public health systems, the concept of "health in all policies" suggests that even those whose work does not directly relate to healthcare—such as employers, community advocates, housing organizations, schools, universities, prisons, military bases, transit systems, land developers, and the like—make decisions and create environments that can help or hinder good health for the overall population or for a specific subpopulation. A few examples include:

- **Business leaders and purchasers in the public and private sectors** deal with the direct and indirect impact of poor health of their employees and family members every day. This results in higher direct healthcare costs. For example, according to the Centers for Disease Control and Prevention (CDC), chronic disease such as heart disease, stroke, and diabetes accounts for 75 percent of the $2 trillion spent on medical care. In addition, the CDC estimates that the indirect cost of employee absenteeism, turnover, short-term disability, workers compensation, and reduced work output may be several times higher than direct medical costs.[5] The gradual shift to more sedentary types of jobs is likely a contributing factor in weight gain and obesity among workers. Over the past five decades, average calories burned for jobs have decreased; however, well-designed workplace physical activity promotion programs can be effective.[6] Beyond striving for a healthier workforce, many businesses also recognize the value of supporting healthier communities through activities such as volunteering time and financial donations to housing projects, educational mentoring, and neighborhood safety initiatives.

- **Parents and other family members** are at the center of influence on the current and future health of children. Children's behaviors, such as eating and activity habits, can be affected both intentionally and unintentionally by the people around them. Certain negative life events or Adverse Childhood Experiences (ACEs) can have a lasting impact on well-being. These ACEs include verbal abuse, living with a problem drinker, separation or divorce of a parent, mental illness in the household, and physical abuse.[7] For people younger than 18, these experiences can cause high levels of stress or trauma, increasing the likelihood of poor physical and mental health, in addition to lower educational achievement, lower economic success, and impaired social success in adulthood.[8] When families and their larger social support systems help minimize the exposure of children to ACEs—and teach kids resiliency and other coping skills—this can positively affect the health and well-being of the next generation. In addition, parents and other family members are vital to the health and welfare of certain adults—particularly those with intellectual and other developmental disabilities, those with severe mental illness, and those with substance use disorders, as well as aging adults with chronic conditions and age-related disabilities such as dementia.

- **Schools** are where children spend many hours of their day for much of the year. Not only is education an important influence on long-term health, but schools can serve as a hub for many more health-promotion activities through healthy lunches, exercise, obesity and diabetes prevention, and mental health and substance use disorder prevention. For example, the Green Strides initiative of the U.S. Department of Education promotes sharing best practices and resources related to health and the environment, addressing issues such as air quality in and around schools and the impact on asthma.[9]

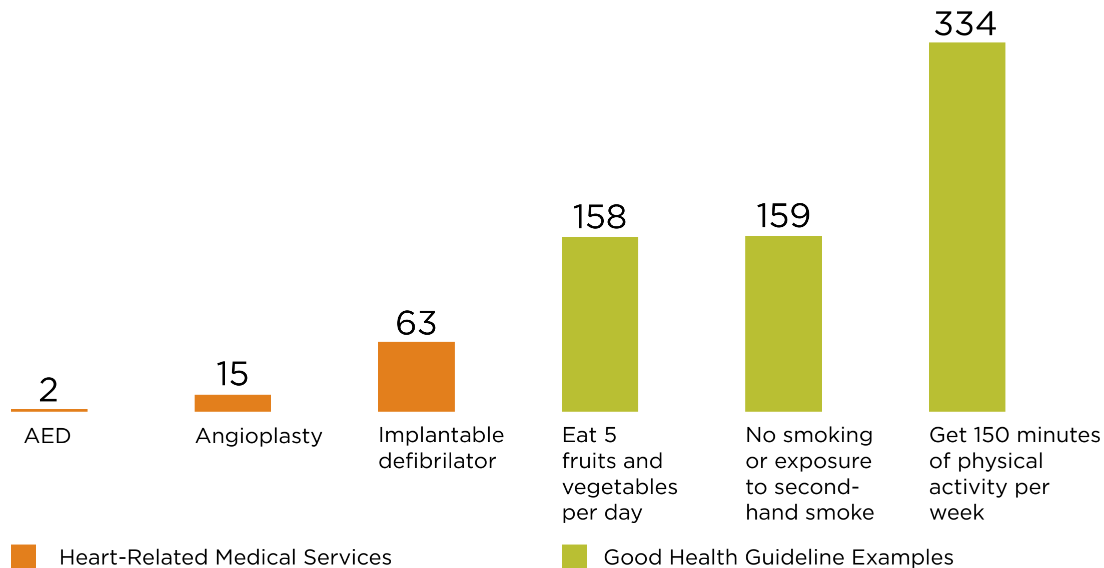
There is also a financial impact to consider. The cost of poor health is staggering, but there is evidence that certain efforts to improve health can save money. Some examples:

- Investing in "community building"—such as advocacy to support low-income or affordable housing, economic and workforce development, environmental improvements, and educational opportunities, among others—is an effective strategy for improving population health, and there can be a financial return on investment. For example, early quality child care and education have been found to have long-term positive effects, with every dollar invested saving taxpayers up to $13 in future costs.[10]
- Health-promoting policies can save money in multiple ways. For example, researchers estimated that prohibiting smoking in all U.S. subsidized housing could potentially save approximately $341 million in healthcare costs related to secondhand-smoke exposure, as well as millions more in avoided renovation expenses and fire damage due to smoking.[11]
- In Camden, New Jersey, leaders recognized that a relatively small number of people who frequently used hospital services were generating about 90 percent of the hospital costs. One patient had come to the emergency department 113 times in a single year. Healthcare providers alone could not solve this problem. However, by taking a community-based team approach to addressing the social and personal needs of these patients—including housing, food, home visits, and social contact—they were able to stabilize the health of this subpopulation and head off medical issues that could cost millions of dollars to address. Their coordinated efforts resulted in a 40 percent reduction in emergency department visits and a 50 percent decrease in hospital costs.[12]

Figure 1 shows a clear example of how working on health improvement is much more effective than waiting until people get sick and need medical care. Within a population of 100,000 people ages 30-84, it was estimated that far more deaths could be prevented or postponed if everyone followed basic guidelines for good health when compared to the impact of consistently and appropriately using key heart-related medical interventions.[13]

A death prevented or postponed avoids the direct and indirect costs of illness and disease caused by poor health. Heart disease and death caused by smoking or obesity, for example, do not happen quickly: the years of poor health result in much higher medical costs, plus the cost of absenteeism and reduced productivity at work.

FIGURE 1. ESTIMATED NUMBER OF DEATHS POSTPONED OR PREVENTED in a year per 100,000 people by meeting good health guidelines, compared to consistently and appropriately using heart-related medical services[14]



Ideally, health issues should be addressed as far upstream as possible, fostering a culture of health within communities and encouraging children to develop healthy habits. Behaviors established in childhood are more likely to become lifelong activities, and attempting to adopt and promote new behaviors in adulthood can be particularly challenging for individuals and healthcare providers. Special consideration may also be needed for certain subpopulations—for example, Medicaid patients with asthma who have variability in both physiology and in influences from their social and physical environments.

Above all, improving population health is about making life better for real people: our children and families, co-workers, neighbors, and ourselves. Preventing and postponing disease increases the odds that every child and adult has the opportunity to reach her or his full health potential.

Interrelated pieces of the "population health improvement" puzzle are being developed and, in some areas, coming together to create a more complete and effective effort. For example, establishing Accountable Care Organizations that align goals and perspectives across certain healthcare organizations is one approach, but is not the same as a comprehensive effort to improve population health. Another initiative from the Centers for Medicare & Medicaid Services Innovation Center (CMMI) is the Accountable Health Communities model, bringing together clinical care and community services to identify the impact of health-related social needs on the total cost of care and healthcare quality. Creating clear incentives is certainly essential. This is taking place in programs such as Medicare Shared Savings, the IRS community benefit rules for nonprofit hospitals, public health accreditation, and the growing use of health impact statements as part of public policy decisionmaking. However, certain pieces of the puzzle needed to achieve better population health at the local, state, and national levels are still missing or hard to find.

Even with a shared commitment to improving population health, this is challenging work. Coordinated collaboration is essential, but different individuals and groups may be motivated by competing incentives and interests that are not aligned. Capturing and sharing information can be difficult, not only because the technology involved may not be available or interconnected, but also because of differences in definitions, cultures, viewpoints, regulations, and available resources.[15] Dedication to learning and applying best practices is needed to overcome these types of challenges.

WHAT IS THIS GUIDE?

This *Guide* is a handbook intended to be used by anyone who wants to improve health across a population, whether locally, in a broader region or state, or even nationally. Whether you are a community leader, public health professional, employer, healthcare provider, health plan administrator, policymaker, or consumer advocate interested in improving population health, this *Guide* contains recommendations, examples, and links to resources that can help you understand the issues and take action. It is organized in brief summaries of 10 elements important to consider during efforts to improve population health.

There are many reports, websites, tools and other resources for every aspect of population health improvement. While each item may be very helpful, the sheer volume can be overwhelming. This Guide is intentionally short, with links to more information when you need more detail. It takes a broad look at the issues, while avoiding duplication of the great work already done by others.

As an essential forum for driving improvements in health and healthcare, the National Quality Forum (NQF), with funding from the Department of Health and Human Services (HHS), brought together a multistakeholder Committee to develop earlier versions of this *Guide* through an open and iterative process. This Population Health Framework Committee (see **Appendix G** for the committee roster) included population and community health experts, public health practitioners, healthcare providers, coordinators of home and community-based services, consumer advocates, employers, and others who influence population health. The Committee membership and transparent process mirrors the multidisciplinary, collaborative nature of effective population health improvement.

This *Guide* is based on evidence and expert guidance about what works to improve population health. This final *Action Guide*, version 3.0, incorporates feedback from multisector collaborative groups working on population health improvement in various regions across the country. These "field testing" groups, listed in **Appendix H** and described in **Appendix F**, provided important input on ways to improve earlier versions of the *Action Guide* based on their practical experiences.

Population health improvement is not about starting a program with a short-term goal that, when reached, you can declare success, shut down the project, and go back to business as usual. Instead, think of population health as an ongoing journey that requires contributions from many types of groups in different sectors across a region and at multiple levels. It is a team effort in which people take actions that, in some cases, fundamentally change how things are done. This *Guide* describes approaches that can help make lasting improvements in population health.

HOW TO USE THE GUIDE

This "how-to" *Guide* suggests 10 useful and interrelated steps toward building or refining initiatives to improve population health. The *Guide* offers ideas, examples, and links to resources that provide detailed content for your consideration. There is no one-size-fits-all approach, *so you should tailor the content in this* Guide *to suit your situation.*

Standard Steps, Custom Approaches

The key elements in this *Guide* highlight best practices and resources for key topics, but the best way to improve population health *depends on where you are doing the work*. Many types of organizations and people, personal decisions, and social and environmental situations influence the health of individuals, subpopulations, and populations. The mix and degree of impact from these influential factors, or determinants of health, differ by location.

Individuals who are newer to this type of work may benefit from reviewing the entire *Guide* in detail. Others may want to focus only on certain elements, or share relevant sections with partners for whom it may be more applicable. How insights from this *Guide* are applied for a given region will differ depending on specific circumstances. Brief examples of how the elements apply to the various field testing groups mentioned above are also provided throughout the *Guide*.

Start Where You Are

Whether you are refining ongoing efforts or starting a new venture, this *Guide* can help. In many regions, there are long-standing programs to improve population health. You can use this *Guide* to assess and further refine or expand such work. In other regions, bringing organizations together to improve population health may be new, so you can use this *Guide* to identify essential parts of the process as you move forward. Ideas for using this *Guide* include:

1. **Prepare to get started**: Drive initial thinking about the current situation in your region and what likely needs to be done to succeed.
2. **Bring others on board**: Share the insights you gain and encourage others to come to the table and participate in the initiative.
3. **Take a deeper dive**: Use the description of each of the 10 elements for a general overview, then follow the hyperlinks under the examples and resources to dig deeper, explore options, and find what is most useful to your region.
4. **Stay on course**: Consider posting or distributing the checklist on page 11 as a quick reminder of the 10 interrelated elements and questions.

IMPORTANT WORDS WITH CLEAR DEFINITIONS

It's no surprise that people use different words to describe this type of work, given the many types of organizations and individuals involved. Clear communication is critical to avoid misunderstanding and keep everyone focused on shared goals.

The terms listed below are among the most important for establishing a common understanding of population health. These definitions are based on the work of experts and multistakeholder groups focused on population health, and are intended to reduce confusion due to different meanings for the same word, or different words used to mean the same thing.

1. **Population Health –** The health of a population, including the distribution of health outcomes and disparities in the population.[16]
2. **Population (also, Total Population) –** All individuals in a specified geopolitical area.[17]
3. **Subpopulation –** A group of individuals that is a smaller part of a population. Subpopulations can be defined by geographic proximity, age, race, ethnicity, occupations, schools, health conditions, disabilities, interests, or other shared characteristics.[18]
4. **Health –** A state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity.[19]
5. **Determinants of Health –** Factors affecting the health of individuals in a population or subpopulation, such as the social and physical environment, behaviors, and healthcare. [20]
6. **Health Disparities –** Differences in health status or health outcomes within a population. [21]
7. **Health Equity –** The absence of systematic disparities in health or major social determinants of health between groups with different underlying social or economic advantages/disadvantages.[22]
8. **Health Inequity –** Differences in health status between groups with varying social and economic advantage/disadvantage (e.g., socioeconomic status, gender, age, physical disability, sexual orientation and gender identity, race and ethnicity) that are caused by inequitable, systemic differences in social conditions (i.e., policies and circumstances that contribute to health determinants).

There are several things to keep in mind about the terms defined above. For example, the definition of population used in this *Guide* includes everyone in a geopolitical area in order to promote a focus on improving the health of all individuals in a region, regardless of other characteristics. Geopolitical areas or regions can be determined by zip code, precinct, ward, county, district, metropolitan statistical area, state, multistate region, nation, continent, or worldwide. In contrast, a geographic area might be less precise—such as along the coast or west of the mountains—and therefore may prove difficult in unexpected ways. Using boundaries that coincide with geopolitical designations may increase chances of finding useful data sources—for example, many population-based surveys use samples determined by geopolitical areas.[23] Program funding and government regulation are often based on or defined within a geopolitical boundary, as well.

Subpopulations can be any group with shared characteristics, such as race, ethnicity, age, employment, educational status, medical condition, or disability, and so on. This can also include groups that might be relatively rare—such as people with "orphan conditions," or people who are transgender—or some other defined group across long distances, especially because of the way technology and social networks allow people with something in common to connect.

Using the definition of subpopulation is important for identifying inequities in health status (and related disparities in medical care, social

services, and supports, etc.) among certain groups. The needs of relevant subpopulations should drive the goals and objectives for health improvement activities implemented by clinical care systems, public health agencies, and multisector partnerships and collaborations.[24] This promotes an approach in which each of these sectors or organizations can work with a specific subpopulation (e.g., covered members, hospital referral area, or an at-risk group) in the context of a total population within a geopolitical area. This approach also accommodates the separate funding, implementation expectations, and data collection systems (often stand-alone) of the various sectors.[25] Addressing the health inequities of subpopulations in greatest need can also potentially have a significant impact on the health of the total population.

People often use the term “community” interchangeably with “population” or “subpopulation.” That can lead to misunderstandings because “community” has many possible meanings. The boundaries of what defines a community are evolving, particularly in the era of the Internet and social media. To avoid confusion, this *Guide* refers to populations or subpopulations more than communities and does not define “community health” as a separate concept. However, an important aspect of community is the power of relationships and the interconnectedness of people, organizations, and systems within a community. Such “system” thinking and focus on relationships are very important to population health improvement work.

The definition of health given above encompasses a complete state of wellness. The World Health Organization has defined health in this way since 1948. You may find it helpful to recognize that this definition describes an aspirational state, and that resilience and maximizing well-being are important for a given set of circumstances. Understanding population health also requires noting the variation in health within subpopulations of people in the total population. It includes looking at patterns of health determinants, and the policies and interventions that link health determinants with health outcomes, both within and across populations.

Many factors shape health, including individual biology, behaviors, and the physical and social environments where we live. Relationships with friends and family can have a major impact on health. These determinants combine to affect the health of individuals, subpopulations, and the total population. It bears repeating: Healthcare has less impact on population health than other factors like the social, economic, and physical environment, and a person’s individual behaviors.

Disparities in health usually refer to differences in health status or health outcomes when comparing groups within a subpopulation or the population overall. Health equity is the absence of these differences in health status or outcomes among diverse groups of individuals. When addressing disparities, the groups most often considered are defined by race or ethnicity, such as Blacks/African Americans, Hispanics/Latinos, Asians and Pacific Islanders, and Native Americans/Alaska Natives, in addition to persons with limited English proficiency (LEP). This is an important first step; however, disparities should be assessed for all vulnerable groups—including people who are disabled, pregnant women, children, the elderly, and lesbian/gay/bisexual/transgender (LGBT) individuals.[26]

ACTION GUIDE KEY ELEMENTS CHECKLIST

Successful collaborative approaches to improving population health involve the 10 elements listed below. Consider these when starting a new project, or when refining existing programs. You do not have to address them in order, but several are interrelated.

✓	Element	Questions to Consider
	Collaborative self-assessment	What is needed to foster effective collaboration on population health?
	Leadership across the region and within organizations	Which individuals or organizations in the region are recognized or are potential leaders in population health improvement?
	Audience-specific strategic communication	What is the level of skill or capability to engage in effective communication with each of the key audiences in the region?
	A community health needs assessment and asset mapping process	Which organizations in the region already conduct community health needs assessments or asset mapping regarding population health?
	An organizational planning and priority-setting process	Which organizations in the region engage in collaborative planning and priority-setting to guide activities to improve health in the region?
	An agreed-upon, prioritized set of health improvement activities	What are the focus areas of existing population health improvement projects or programs, if any?
	Selection and use of measures and performance targets	Which measures, metrics, or indicators are already being used to assess population health in the region, if any?
	Joint reporting on progress toward achieving intended results	Which organizations in the region publicly or privately report on progress in improving population health?
	Indications of scalability	For current or new population health work, what is the potential for expansion within the region or to other regions?
	A plan for sustainability	What new policy directions, structural changes, or specific resources in the region may be useful for sustaining population health improvement efforts over time?

See the full *Action Guide* for details about each element, examples, and links to useful resources.

TEN KEY ELEMENTS: OVERVIEW

Various elements go into creating and sustaining successful approaches to improving population health. The elements in this *Guide* were identified based on research and assessments of existing resources and initiatives focused on improving population health. Many promising programs already include some or most of these elements. To improve the likelihood of long-term success, consider all 10 of the elements when starting a new project or program, or when refining or coordinating projects or programs already in place.

Each section below describes one element, tells why it is important, gives examples of how it can be done, and provides links to useful resources. The elements are numbered, *but there is no required order you must follow*. That said, starting with the self-assessment may give you the best insight about your approach to the other elements.

Element 1: Collaborative Self-Assessment

What it is

A self-assessment can identify strengths and weaknesses during the planning of new activities or ongoing implementation of collaborative efforts to improve population health. You can do a self-assessment using a formal process or an online tool, or you can start by reviewing the elements in this *Guide*.

FIELD TESTING THE ACTION GUIDE

DASH-NY

Designing a Strong and Healthy New York (DASH-NY) is a coalition of many partners across multiple sectors in New York State working on policy, systems, and environmental changes that can reduce the burden of obesity and chronic disease in New York's communities. After several years of work, the New York Academy of Medicine (the organization staffing DASH-NY) helped lead a self-assessment of their coalition in order to gain insight on how well their diverse coalition was working together to achieve common objectives. They used a tool called the Wilder Collaboration Factors Inventory to guide this process. http://www.dashny.org/about/the-coalition/

Why it is important

A collaborative self-assessment creates a foundation for understanding the current situation and environment. The assessment can highlight the unique capabilities and limitations of different partners, and reveal where you may need more resources or attention. Results of a self-assessment are important for informing decisions when identifying roles for different groups participating in the work, setting goals and objectives, developing strategies, creating plans, and taking steps to achieve the desired results.

The steps to take after the self-assessment depend on what you learn from it. For example, if the assessment shows that there has been little or no collaboration in your region to improve health within or across the population, you might next identify and bring together a small group of interested stakeholders to build trust and explore how to get started. In contrast, a self-assessment that reveals multiple existing population health improvement projects or programs in the region could call for bringing the project leaders together to forge new or stronger connections. The assessment may also inform decisions about which organizations are best positioned to take part in a broader multistakeholder effort.

How it can be done

You can do a self-assessment informally or take a more structured and resource-intensive approach. The assessment may involve research, surveys, or interviews of community members and key organizational partners, as well as other approaches to gather information. Various tools and reports are available to assist with self-assessments.

For each element in this *Guide*, your stakeholders might explore many questions during a self-assessment. Questions can help to generate ideas about how best to approach the work, including where to start. Exploring these questions in advance can also serve as an important reminder to ensure that sufficient resources, such as funding or time from key partners, will be allocated to each of the elements. The questions listed next to each element in the checklist on page 11 can help kick-start the process.

The findings from a collaborative self-assessment should help identify the next steps. For example, the self-assessment may indicate a lack of knowledge or agreement about the degree of collaboration already happening in a region, so a detailed mapping of community assets may better identify existing population health improvement activities and partnerships. The results of the asset mapping could then inform next steps, such as determining what type of collaborative model may be most appropriate for the specific group of multisector partners (see the resource links below for more information).

After completing the self-assessment, you need not follow the rest of the elements in order. Address the elements in a way that fits your regional situation. Certain elements do tend to flow together sequentially during implementation, while other elements are more relevant throughout the process. However, it is critical to consider each of the elements early. For example, you should consider a plan for joint reporting of results at the start of a project to ensure prompt feedback on progress. You may need to adjust the approach to addressing each of the elements at different times to adapt to changing conditions. Figure 2 shows one way to picture the relationship among the *Action Guide* elements.

FIGURE 2. ACTION GUIDE ELEMENTS

Here are additional resources for more information:

- **CDC Partnership Evaluation Guidebook**. This report describes six steps for evaluating the strength of your partnership. Each step is described, with illustrations or examples from real programs, and includes a checklist of tasks and worksheets for applying the concepts to your specific evaluation, as well as a summary of tips. http://www.cdc.gov/obesity/downloads/partnershipevaluation.pdf
- **Community Tool Box.** This is a toolkit with a detailed outline of issues to consider, additional linked resources describing different approaches and models of collaboration, and specific examples. Multiple questions are listed that can help bring focus to what is needed for effective collaboration. http://ctb.ku.edu/en/creating-and-maintaining-partnerships
- **Improving Community Health through Hospital-Public Health Collaboration**. Although this report focuses more on collaboration between hospitals and the public health sector, many of the insights are applicable for various other types of collaborative population health efforts. Appendix A of the report identifies "Core Characteristics of Successful Partnerships." http://www.uky.edu/publichealth/sites/www.uky.edu.publichealth/files/Research/hospital-public%20health%20partnership%20report_12-8-14.pdf
- **Wilder Collaboration Factors Inventory**. This is a free tool to assess collaboration based on 20 research-tested success factors. The inventory takes about 15 minutes to complete. Scoring can be done manually or online. https://www.wilder.org/Wilder-Research/Research-Services/Pages/Wilder-Collaboration-Factors-Inventory.aspx

Element 2: Leadership Across the Region and Within Organizations

What it is

Leadership is the ability to guide or influence people. It is essential when bringing individuals and organizations together to accomplish a common task. An effective, trusted convener needs certain leadership skills and abilities. These include cultivating a shared and inspiring vision, thinking strategically, applying individual and collective intelligence, managing relationships and roles, demonstrating shared accountability and recognition, using effective social skills in different situations, and being resilient, adaptable, and able to manage change. Success depends on leadership within organizations and across participating groups. Coalition leaders must integrate the efforts of many stakeholders and foster a collaborative culture.

Improving population health requires leaders in several types of organizations and individuals to work together. *At a minimum, this should include representatives from public health, healthcare, and other key stakeholders who are strongly invested in the affected population.* The needed stakeholders may be diverse, including consumer groups, local and state elected officials, tribal councils, Medicaid directors, state authorities for mental health and for intellectual and developmental disabilities, employers and business leaders, educators, transportation officials, housing advocates, community service providers, health plans, the military, healthcare providers, corrections administrators, farmers, people representing those with particular health conditions or disabilities, and faith communities. Each can bring important perspectives to the table, as well as unique experiences and skills.

Why it is important

Bringing such diverse groups together takes leadership. Whether it is a single leader or a small group of people who inspire and guide others to get involved, creating momentum does not happen without one or more identified leaders. This requires skills in managing relationships and roles, strategy, and helping others understand the benefit that they will get from participating.

Organizations will likely have differences in perspectives, internal culture, terminology, and the value that they see in the work. Leaders of population health improvement initiatives must be able to create a collaborative culture, in part by building bridges across groups to create shared values and goals, while tapping into the unique motivations of the different organizations and individuals. An effective leader will have interpersonal and strategic skills in handling conflicts and challenges, such as addressing turnover among participating partners, securing time from key people who are already involved in several projects or programs, and getting competing groups to join forces for a common cause. Good leaders consistently recognize and attribute success to all participating partners. A trusted broker or intermediary who understands the importance of being an informed, yet neutral convener can best provide such leadership.

Stakeholder organizations who are widely supported in a region and are recognized for their effective internal leadership may be natural candidates for taking on a broader leadership role. The selection of an individual leader could be as simple as considering three key questions: Does the person "fit" the current (or desired) culture of the multistakeholder group? Is the person open to learning and adapting? Does the person have a track record leading effectively?

Leadership matters at many levels. For example, participating organizations and individuals show leadership when they choose to take part in this work. In addition to building common ground among groups, a crucial aspect of leadership takes place *inside* each organization involved. In other words, successful health improvement efforts involve people able to lead inside their own organizations to create an inspiring vision, and sometimes modifying existing approaches to better align their efforts with those of others. Success depends on the engagement, commitment, involvement, and support (financial and otherwise) from each organization.

FIELD TESTING THE ACTION GUIDE

Geneva Tower

Geneva Tower Health Collaborative focuses on improving the health of the residents of Geneva Tower, a 183-unit apartment complex in Cedar Rapids, Iowa, which houses low-income elderly and/or disabled adults. Leaders from several types of organizations in the community recognized that the individuals in Geneva Tower were a particularly vulnerable subpopulation in need of extra support. The organizations proactively came together to better coordinate their services, reduce barriers to care, and identify ways to improve the quality of life for the Geneva Tower residents. http://www.mercycare.org/news/2015/mercy-and-abbe-center-chosen-to-guide-national-health-improvemen/

How it can be done

Here are examples of reports or initiatives that address this topic:

- **Collective Impact**. As highlighted in a series of articles in the *Stanford University Social Innovation Review*, collective impact is a process where groups from different sectors commit to a common agenda to solve a social problem. Conditions for success include identifying a "backbone organization" to help plan, manage, and provide ongoing support for an initiative. http://www.ssireview.org/articles/entry/collective_impact

- **Common Table Health Alliance.** This collaborative leads multiple population health improvement projects and oversees partnerships with around 200 organizations. Stakeholders include consumers, schools, hospitals, physicians, nurses, nutritionists, dentists, and other healthcare providers, medical advocacy and support groups, health plans, quality improvement organizations, universities, employers, government (including Medicaid), media, youth groups, faith-based organizations, health-, fitness-, and recreation-related affiliates, and nonprofit agencies and foundations. The Common Table Health Alliance serves as a convener, bringing disparate elements of the community together to take a comprehensive view of health. http://commontablehealth.org/
- **Community Toolbox**. This resource contains information about building leadership with several components, including multiple descriptive sections that cover various aspects of leadership, a checklist of leadership issues to consider, and an example—http://ctb.ku.edu/en/table-of-contents/leadership/leadership-ideas/plan-for-building-leadership/main. There is also content about identifying and analyzing stakeholders that leaders may find useful—http://ctb.ku.edu/en/table-of-contents/participation/encouraging-involvement/identify-stakeholders/main
- **The YMCA's Pioneering Healthier Communities (PHC).** PHC teams take a "shared leadership" approach with community partners, which led to the revision of YMCA directives and activities based on a broader view of health. One of the seven leading practices that came from these relationships is the need to "adapt to emerging opportunities." http://www.ymca.net/sites/default/files/pdf/phc-lessons-leading-practices.pdf

Element 3: Audience-Specific Strategic Communication

What it is

Audience-specific strategic communication means customizing messages and approaches in ways that connect with the target audiences, including partner organizations, individual community members, and other stakeholders. Two-way strategic communication is essential for all aspects of this work: across the active participants in the population health improvement work; with individuals and groups affected by it; and with others, such as elected officials and policymakers whose decisions affect health determinants, and news media members who raise awareness of activities and bring recognition to key partners. Although the vision and goals of your initiative should stay consistent, you need to adapt the content, style, and even the methods of communication to speak to your intended audiences and be sensitive to their values, priorities, and cultural filter. This requires cultural humility on the part of the communicator—understanding that what you intend may not always be what others hear. Understand the perspective of others and then communicate in ways that reflect that understanding.

Why it is important

Effective communication can make or break success. The wide range of organizations and individuals who have a role in improving health means that effective communication must span different cultures, terminology, literacy levels, goals, and values. Addressing differences across audiences requires culturally sensitive interaction and is at the heart of strategic communication. This is essential for engaging, motivating, and learning from individuals and organizational partners as you all work together.

How it can be done

Many sectors use unique terminology that can be confusing. This is especially true in healthcare and public health. Using words that are easy for everyone to understand, explaining commonly misunderstood terms, and avoiding acronyms are a few basic principles to follow. In addition, combining stories with meaningful data can help people emotionally connect with an essential message while also building credibility.

Communication that works for one group will not work for everyone. For example, some individuals and organizations—driven by business principles—will focus on the value proposition and evidence of likely return on investment in any initiative. Understanding that time and financial resources are limited, and cost reduction is imperative, these groups will respond to discussions about improving health at the population level if there is a compelling business case. At the same time, some individuals and organizations engage in population health improvement because it reflects social values such as equity and fairness, dignity, and opportunity. In this case, discussing population health improvement using business-oriented perspectives and terminology may not work as well.

Organizations and agencies dedicated to a specific stakeholder audience may help you learn about the needs and communication nuances for a particular audience or issue. For example, every state in the nation has one or more agencies that are designated authorities for people with intellectual and developmental disabilities, behavioral health, or mental health. In addition, leaders of community and professional associations and Chambers of Commerce and many others can be allies to help develop effective communication intended for specific audiences.

Communication vehicles are also evolving population health improvement. Many people increasingly access information via mobile devices and social media. Leveraging these platforms to communicate health-centered messaging, report the impact of local initiatives, and create space for cross-sector conversations can help bring stakeholders together to address priorities for population health improvement.

Here are examples of reports or initiatives that address this topic:

- **The Goodman Center**. This is a resource devoted to helping organizations use stories to meet their goals. Effective stories help people remember, shape identity, and influence how they see the world. The tools on this site focus on helping individuals and groups learn how to use stories in every aspect of internal and external communications. http://www.thegoodmancenter.com/
- **Health in All Policies**. Exploring a collaborative approach to improving population health, "Health in All Policies" offers guidance for state and local governments on incorporating health considerations into diverse sectors of public policy. The glossary includes a comprehensive and generally applicable list of terms that

FIELD TESTING THE ACTION GUIDE

Oberlin Community Services and The Institute for eHealth Equity

Oberlin Community Services (OCS) is a nonprofit community services organization that has been operating in Oberlin, Ohio, for many years, initially as a food bank and then expanding to a fuller range of services. OCS is collaborating with The Institute for eHealth Equity (IeHE), which focuses on the use of technology to support individual decisions that lead to better health. One critical component of their partnership involves customizing messages to build trust and engagement among community members and leaders from local institutions, as well as making effective use of mobile communication technology. http://www.oberlincommunityservices.org and http://www.iehealthequity.org

spans health, business strategy, environmental planning, sociology, and policy. See specific communication guidance starting on page 101. http://www.phi.org/resources/?resource=hiapguide

- **Robert Wood Johnson Foundation – A New Way to Talk About The Social Determinants of Health**. This report highlights the findings of research on effective communication and creating compelling messages about social determinants of health, including best practices in language and framing, and use of data and information to support your case. http://www.rwjf.org/en/library/research/2010/01/a-new-way-to-talk-about-the-social-determinants-of-health.html
- **White Earth Nation Tobacco Coalition.** This action plan to reduce commercial tobacco use in the tribal community of White Earth in Minnesota is a good example of how to create culturally relevant outreach materials and policy. Materials are aimed at individuals, healthcare providers, and community institutions, and include the use of language specific to the tribal community, such as use and explanation of the word "Asayma" to mean "sacred tobacco." http://www.whiteearth.com/programs/?page_id=405&program_id=4#Tobacco

Element 4: A Community Health Needs Assessment and Asset Mapping Process

What it is

A community health needs assessment and asset mapping process is a way to take a comprehensive look at the health-related gaps or needs of a population and to identify potentially helpful resources or strengths.

Needs assessments typically involve defining the geographic focus or the region of interest (e.g., zip code, county, state, service area), collecting and interpreting data (e.g., population characteristics or demographics, health status, access to services), and identifying and prioritizing the health needs in that region, in part by engaging and learning from members of the community itself.

Asset mapping focuses on the strengths or positive attributes of a region rather than deficiencies or needs. Assets can be *tangible*, such as financial strength, physical structures, businesses, or natural resources or *intangible*, such as individual or organizational skills and capabilities, regional heritage, readiness for change that can lead to improvement, supportive public policy environment, resiliency and adaptability, or other special community characteristics or attributes.

While asset mapping and health needs assessment might seem separate and potentially at odds, they complement each other, and you need to do both. Combining health needs assessments and asset mapping can create a shared understanding based on a more complete view of a region. Members of a community itself provide a key source of information. Engage the community to understand their perceptions and priorities. Both asset mapping and health needs assessments involve listening and learning about what is already in place and what may be needed.

Why it is important

Conducting a community health needs assessment (CHNA) and asset mapping helps ensure that the selected priorities for population health improvement align with actual needs and make the best use of resources. Doing this work as a larger collaborative of organizations, rather than developing competing reports, increases the likelihood of effectiveness, eliminates duplication of effort, reduces expenditures, and creates a

shared understanding among all of the groups involved in the initiative. Learning from each other can propel more rapid progress. Ideally, you should conduct a CHNA and asset mapping with both regional and statewide input. Conducting these activities in concert will provide a more comprehensive view of a given geographic area.

Many groups have been doing needs assessments for accountability and planning purposes. The use of community health needs assessments has been growing quickly and presents one of the most fertile opportunities for coordinated population health improvement efforts. Existing or new incentives to conduct health assessments include:

- National accreditation for public health departments
- Program requirements of Federally Qualified Health Centers
- U.S. Department of Agriculture (USDA) support for schools to provide healthy nutrition for children
- Regional Extension Centers' need for assessments in rural areas
- Rules that govern nonprofit hospitals registered with the IRS as a 501(C)(3) organization
- Needs assessments done by state authorities for intellectual and developmental disabilities

For example, there are nearly 3,000 nonprofit hospitals in the U.S., according to the American Hospital Association, and each hospital is affected by an IRS requirement passed into law as part of the Affordable Care Act (ACA).[27] Nonprofit hospitals must conduct a community health needs assessment once every three years—*in collaboration with public health entities and others*—and to develop and annually update a related "implementation strategy," which is an improvement plan with measurable goals and objectives. The plan must address the health needs of the community, defined by the IRS as including "not only the need to address financial and other barriers to care but also the need to prevent illness, to ensure adequate nutrition, or the need to address social, behavioral, and environmental factors that influence health in the community."[28] Hospitals must conduct these assessments and implement related improvement plans or pay a sizeable fine. The IRS regulations require a nonprofit hospital to consult with public health organizations and encourage collaboration with others in the same community, including other hospitals and medical systems.

In addition, the IRS has adopted a standardized nationwide reporting system (Schedule H filed with nonprofit hospitals' annual Form 990) that captures more complete information about the community benefit activities of each hospital, and includes a standard definition of "community benefit." Based on the IRS definition, nonprofit hospitals must engage in activities that include "community health improvement" provided directly by the hospital or through hospital support to community-based organizations. Community benefit may include "community building" activities that have a direct connection to promoting the health of the population served by the hospital. Examples of activities that might qualify include physical improvements and

FIELD TESTING THE ACTION GUIDE

Kanawha Coalition for Community Health Improvement

The Kanawha Coalition for Community Health Improvement (KCCHI) was founded in 1994, when hospital engagement in wellness emerged from the Healthy Communities movement. Today, the collaborative works on community health issues in Kanawha County, West Virginia, by bringing together about 100 key leaders to conduct a shared Community Health Needs Assessment (CHNA). It is their core product, and many groups use it. The KCCHI steering committee also engages community members by encouraging feedback and input to the CHNA. http://www.healthykanawha.org

housing; economic development; environmental investments; leadership development and training for community members; coalition building; community health improvement advocacy; and workforce development.[29]

The requirements for nonprofit hospitals—to engage in community health needs assessments and annual improvement plans, to report their population health improvement or community building activities, and to demonstrate measurable impact from those activities—increase the potential for greater coordination of—and investment in—population health improvement aimed at meeting the specific needs of a region. Stakeholders other than nonprofit hospitals, such as health departments and community coalitions, can play a crucial role in the success of community benefit activities required of nonprofit hospitals.

How it can be done

Here are examples of reports, tools, or initiatives that address this topic:

- **Assessing and Addressing Community Health Needs**. This resource aims to help not-for-profit healthcare organizations strengthen their assessment and community benefit planning processes. The book offers practical advice on how hospitals can work with community and public health partners to assess health needs and develop effective strategies for improving health in their community. It also includes ideas for data sources to understand the preferences and priorities of community members. http://www.chausa.org/communitybenefit/printed-resources/assessing-and-addressing-community-health-needs
- **Community Commons – Community Health Needs Assessment Toolkit**. This toolkit is a free web-based platform designed to assist hospitals and organizations to understand the needs and assets of their communities, and work together to make measurable improvement in health in the community. http://assessment.communitycommons.org/CHNA/
- **Community Health Navigator.** The resource website was developed by the Centers for Disease Control as a one-stop-shop to offer community stakeholders expert-vetted tools and resources to help people lead or participate in population health improvement work within hospitals and health systems, public health agencies, and other community organizations. Resources include a database of interventions, and specific tools to support collaborative efforts to improve community health. http://www.cdc.gov/chinav/
- **DC Health Matters.** This is a community-driven, interactive web portal providing local health data, resources, best practices, and information about local events to help community organizations and researchers understand and act on health issues affecting communities in the District of Columbia (DC). The database is a collaborative effort and a "living" project that continues to evolve as users contribute and share the information, which can be used to assess population health needs and assets. The website provides demographic, economic, and health data for the communities of the DC area and includes report creation tools. This is a good example of a collaborative resource useful for needs assessment and asset mapping: http://www.dchealthmatters.org. (*Note: more than 100 communities have similar websites, based on the technology developed by the Healthy Communities Institute, which support continuous health improvement. Other examples include http://www.healthysonoma.org and http://www.sfhip.org*)
- **Vermont Blueprint for Health.** As part of the implementation of the Blueprint, various workgroups and teams are created, including a Community Health Team and an Integrated Health Services workgroup, to assess specific needs and coordinate efforts within the community and in the clinical care field. http://blueprintforhealth.vermont.gov/

Element 5: An Organizational Planning and Priority-Setting Process

What it is

An organizational planning and priority-setting process is a clearly defined approach taken to define the goals and objectives of a population health improvement initiative—both within an organization and across organizations or groups that will collaborate. You should regard this process as more than a simple acknowledgement that planning and priority setting will happen. View it instead as a deliberate step to define *when and what* planning will be done and *how* the participating individuals and groups will identify priorities. Other elements described in this *Guide* should factor in to the planning and priority-setting process.

The process should include planning for evaluation from the outset. Determining—up front—how you will assess, measure, and learn from the progress of the work over time will help define the path forward, and then guide decisionmaking and refinements along the way. Use clear approaches or models to inform how the evaluation is designed and implemented. This can include evaluating an overall initiative, measuring the success of key processes, assessing the impact of certain interventions, and tracking changes in health outcomes over time. Element 7 further addresses these issues.

Why it is important

Given the need to build and maintain trust with participating organizations, be transparent about *how* decisions are made. Holding open meetings is one way to do this. In addition, establishing a unifying vision for the different participants helps promote enthusiasm for collaboration. But achieving results is what really motivates most people—that is, fostering healthier individuals, families, communities and populations, along with the related benefits of better health such as improved or sustained quality of life, lower healthcare costs, improved school readiness, less absenteeism, better productivity, and so on. Targeting at least some actions that can yield early successes provides incentive for continued work on longer-term goals.

Some may want to jump into getting the work done to achieve better outcomes, rather than spending time up front defining processes. However, taking a systematic, stepwise approach to planning and priority-setting and clearly communicating how that process is being followed can help prevent confusion and enhance understanding of what is working well or not so well. Make sure you recognize and address the goals and motivations of each group during the planning process so that all participants feel invested in the work. Over time, you will likely need to modify the process as the initiative matures and adapts to changing circumstances.

In addition, treating evaluation as an afterthought may cause you to lose important information because it is not being captured while it is happening (or soon afterward). Incorporating evaluation into the process from the beginning creates the opportunity to gather important information that will promote learning in real time to adapt and improve and that will make a

FIELD TESTING THE ACTION GUIDE

Empire Health Foundation (WA)

The Empire Health Foundation (EHF) is a private foundation focused on improving population health in Eastern Washington State. EHF helps convene public- and private-sector partners to address community needs and priorities. For example, EHF contributed to Priority Spokane, a collaborative effort that included a formal planning process to improve high school graduation rates in their community (see Figure 4 below for a visual model of their action plan). Their organizational structure allows them to meet the evolving needs of the community and culture, while supporting innovative ideas. http://www.empirehealthfoundation.org

compelling case to current and potential partners and funders.

How it can be done

Several available models may aid you in defining and communicating the process that you will use for planning and setting priorities. For example, Table 1 below offers criteria that you can apply when prioritizing population health problems, in addition to criteria to help you choose actions to address problems.

Other examples of prioritization approaches include the multivoting technique; use of strategy grids; the nominal group technique; the Hanlon Method; and creating a prioritization matrix. These are all described in detail in **a brief developed by the National Association of County and City Health Officials** (NACCHO).[31] The brief includes step-by-step instructions on how to use these approaches, with examples and templates. There is no right or wrong method for prioritization. What works best should be tailored to fit the situation.

Part of this process should involve the review of national priorities, which emphasize promoting health in all policies and creating regulatory and financial incentives that reward those who improve individual and population health. Top national priority areas, based on assessments of health needs across the country, are addressed in *Healthy People 2020* and the *National Quality Strategy*. To achieve the greatest possible impact and maximize the potential benefits from alignment, consider where there are connections between the priority topics identified through the needs assessments, asset mapping, and national priorities for health improvement.

After prioritizing, move on to the next step: Plan solutions drawn from evidence-based interventions and recommendations, such as those offered in the **Guide to Community Preventive Services** and **National Prevention Strategy**. Most planning models are cyclical. They recognize that planning is not one-time activity but an ongoing process that should be designed to learn from what has already occurred so you can adapt to improve the likelihood of success. Feedback loops are a key feature: Seek out information or input, then use it to improve. One helpful model is the "Plan-Do-Study-Act" cycle, shown in Figure 3.

TABLE 1. COMMON CRITERIA FOR PRIORITIZING POPULATION HEALTH NEEDS AND INTERVENTIONS[30]

Identify Top Priority Health Need(s)	Identify Intervention(s) for Health Need(s)
• Impact of problem • Availability of effective, evidence-based solutions • Cost and/or return on investment • Availability of resources (staff, time, money, equipment) to solve problem • Urgency of solving problem • Size of problem (e.g., number of individuals affected)	• Expertise to implement the solution • Return on investment • Effectiveness of the solution • Ease of implementation or maintenance • Potential negative consequences • Legal considerations • Impact on systems or health • Feasibility of the intervention • Ability to influence private and public policies (for example, through monetary incentives) that can sustain the intended impact

FIGURE 3. PLAN-DO-STUDY-ACT CYCLE.

Source: Medscape / AGA 2012

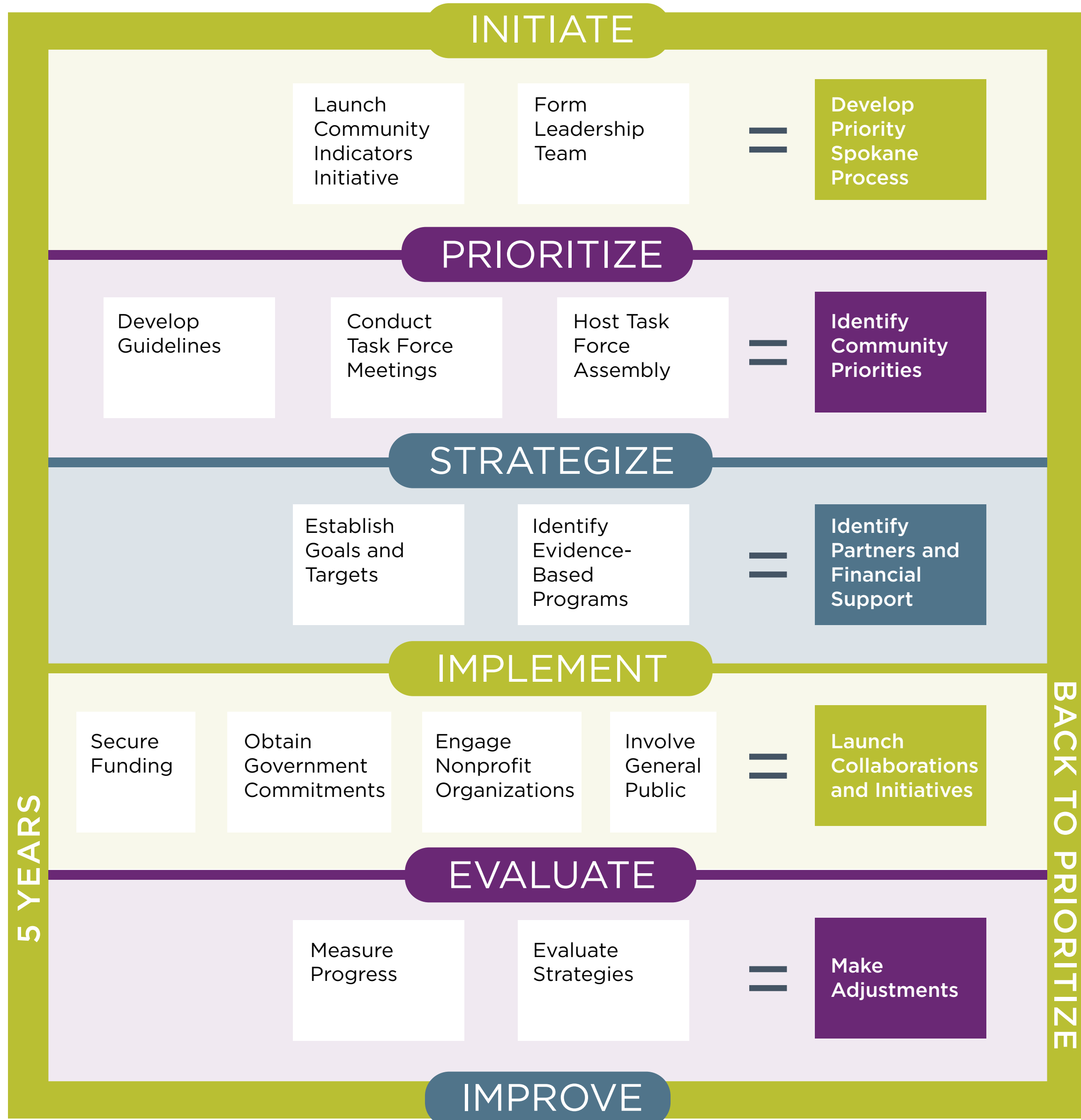
Each segment in the Plan-Do-Study-Act model has steps that require more detailed thinking. For example, under the Plan step, there are various ways to think about what actually drives health.

The approach of Priority Spokane provides an example of planning and priority setting. This effort involved defining a specific plan, which included prioritization and strategic components, followed by implementation and evaluation, and a feedback loop that informs further priority-setting. Figure 4 shows the various steps of the process and their relationships.

Here are additional initiatives and resources that address this topic:

- **Family Wellness Warriors Initiative.** This initiative includes one-on-one work with Alaska-native communities to plan, implement, and assess a three-year-model aimed at reducing domestic violence, abuse, and neglect. The three-year model and curriculum were developed by a steering committee of Alaska-native people and mental health professionals, who worked on adaptation and development for two years by analyzing research-based evidence and projects from around the world. http://www.fwwi.org/index.cfm
- **Mobilizing for Action through Planning and Partnerships (MAPP).** This is a community-driven strategic planning process for improving population health. It is a framework used by public health leaders and others to apply strategic thinking to prioritize public health issues and identify resources to address them. http://www.naccho.org/topics/infrastructure/MAPP/index.cfm
- **National Prevention Strategy.** This strategy envisions a prevention-oriented society where all sectors contribute to the health of individuals, families, and communities. It identifies federal actions and provides evidence-based recommendations for a variety of partners (e.g., state and local governments, employers, healthcare systems and insurers, educational institutions, and community, nonprofit, and faith-based organizations) to promote health across multiple settings. Priorities span clinical care delivery, community environments, and health behaviors, including tobacco-free living, preventing drug abuse and excessive alcohol use, healthy eating, active living, injury and violence-free living, reproductive and sexual health, and mental and emotional well-being. http://www.surgeongeneral.gov/priorities/prevention/strategy/

FIGURE 4. EMPIRE HEALTH FOUNDATION – PRIORITY SPOKANE APPROACH



Element 6: An Agreed-Upon, Prioritized Set of Health Improvement Activities

What it is

An agreed-upon, prioritized set of health improvement activities is a list of strategies and actions that organizations or individuals will take to support population health improvement initiatives. This requires identifying the needs (see Element 4), agreeing what the focus areas will be, then defining the specific "ask" for each of the participants, such as commitment of staff time, financial resources, changes in private sector approaches or public policy, communications, etc. Be clear about what each group is being asked to do, and what the benefit or value proposition will be for each group in return for participating. Together, the organizations identify one or a few high-priority topics for which they will lead health improvement activities in the region. The priority topic or topics are identified through shared planning, assessment, and decisionmaking. These priorities will drive the activities that each organization commits to doing with the people in the population or subpopulation(s) with whom they interact.

FIELD TESTING THE ACTION GUIDE

Trenton Health Team, Inc. (NJ)

The Trenton Health Team, Inc. (THT) is a collaborative made up of two hospitals and 29 community and social service agencies across Trenton, New Jersey. Through their Community Health Needs Assessment (CHNA), THT identified five priority areas of health improvement including healthy lifestyles; substance abuse and behavioral health; safety and crime; chronic disease; and health literacy and disparities. By matching these priorities with the strengths and experience of partners such as the Children's Home Society, the American Diabetes Association, the New Jersey Partnership for Healthy Kids-Healthy Corner Store Initiative, and the Henry J. Austin Health Center (a Federally Qualified Health Center), THT was able to maximize existing assets and address collaborative health improvement goals. http://www.trentonhealthteam.org

Why it is important

With so many factors influencing health, even the best efforts of a solo project or program risk having little impact. Population health is complex, involving multiple drivers and determinants. The challenge of improving individual health and the health of the overall population while reducing disparities may seem beyond the ability of any single organization or type of group.

Organizations can accomplish far more together than a single one could ever do alone. Working together, organizations can identify a few top priority focus areas. Each organization can commit to engage in specific activities to promote better health with respect to the priorities identified. Such an approach has the best chance to produce measurable improvement that lasts. It also fosters a shared awareness about the importance of the targeted priorities, whether they relate to reducing domestic violence or adverse childhood experiences, addressing depression and other mental health needs, reducing obesity, promoting stronger social and family connections that are so important to overall well-being, or any other priority.

How it can be done

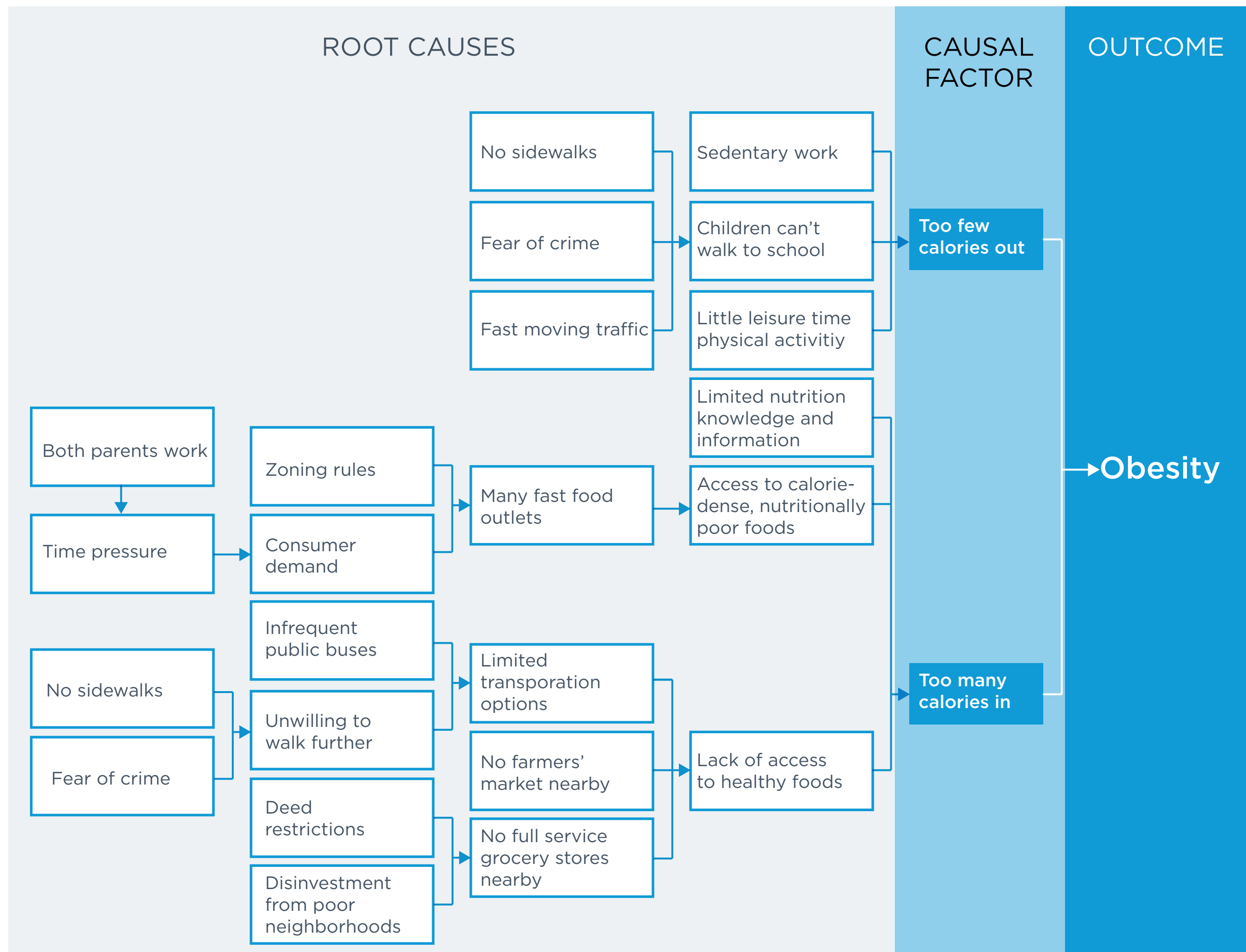
After drawing insights from the community health needs assessment and asset mapping process (Element 4), and identifying top priority focus areas, consider actions to address the priority topics or needs in more detail. For example, an initiative called ReThink Health has developed a simulation model that can help groups predict the likely long-term effects of different activities, policy changes, financing, and other strategies on health outcomes, healthcare delivery, and costs. Using this tool can bring different options to life, spurring discussions about the value and impact of different interventions to address high-priority needs.

Another way to identify potential actions is to identify contributing factors and likely causes

for a given need or problem, and then use this information to drive potential solutions. You can do this using a "root cause map" like the one shown below in Figure 5 that was developed for obesity.[32]

Each outcome stems from causal factors, which you can trace back to basic or root causes. Certain causes—stemming from genetics or biology, for example—may be difficult to address. On the other hand, root causes such as unsafe neighborhoods, poor access to affordable and healthy food options, a community ethic that tolerates unhealthy behavior, and so on, might illuminate possible actions or changes that can disrupt or eliminate a root cause of a poor health outcome. Maps like this can also spur discussion about other root causes to consider, especially when looking even further upstream—such as breast feeding of infants. Sometimes efforts to address difficult problems need to start with small steps or "wins" in order to build trust and a sense of shared accomplishment, enabling groups to take on more challenging issues over time.

FIGURE 5. ROOT CAUSES OF OBESITY



Building on this example, if your organizational partners agree that reducing obesity is a top priority for a collaborative effort, you can identify various activities for different organizations to commit to doing based on the root causes like those shown in Figure 5. Such actions might include:

- *Employers—including public, private, and the military*—ensuring that cafeterias offer salads and other nutritious foods that are more affordable than unhealthy options;
- *City planners and schools* working together to make neighborhoods around schools safer for biking and walking;
- *Hospitals, doctors, and nurses* measuring the body mass index (BMI) and discussing physical activity and better nutrition for all patients, since patients may be malnourished regardless of BMI;
- *Grocery stores* highlighting healthy food options in each aisle and offering cooking demonstrations of healthy recipes;
- *Community groups* starting a Saturday market where local farmers can sell fresh fruits and vegetables in underserved areas;
- *Churches and others in faith communities* organizing weight loss support groups through parish nurses and addressing obesity in the context of spiritual health.

The agreed-upon activities are part of a connected process that relates to the findings from the needs assessment and asset mapping (Element 4), directly supports the priority focus areas (Element 5), and has the potential to result in measurable improvement (Element 7).You can then factor insights gained from the results into future planning and priority-setting for greater improvement over time.

Here are examples of reports or initiatives that address this topic:

- **Blue Zones Project.** The Blue Zones Project is an example of a community well-being improvement initiative designed to make healthy choices easier through permanent changes to the environment, policy, and social networks. The guiding principles stem from international research that identified nine healthy living principles in communities whose populations have achieved a high level of well-being and longevity. The project provides a framework for engaging public agencies, local business communities, schools, and a wide range of civic organizations in setting priorities and taking actions to achieve a common goal of improving the well-being of the community. http://www.bluezonesproject.com
- **CDC Community Health Improvement Navigator.** This resource contains a database of effective interventions that can be applied by community organizations, health systems, public health agencies, and others who are working together to improve health in a community. http://www.cdc.gov/chinav
- **Operation Live Well.** This DoD initiative supported the National Prevention Strategy of improving health and well-being using a prevention-oriented approach. While the pilot program has been completed, through efforts at military bases, DoD implements and supports demonstration of research that supports fitness across the U.S. military forces. http://www.health.mil/Military-Health-Topics/Operation-Live-Well
- **Healthy Communities Institute (HCI).** This organization provides customizable, web-based information systems to visualize local data through indicator dashboards and GIS maps. They also provide access to a national database of promising community-level interventions, and help establish connections among community

members, experts, and resources. http://www.healthycommunitiesinstitute.com/

- **Institute for Clinical Systems Improvement (ICSI).** This organization has taken part in efforts across the country to promote Accountable Health Communities, and offers reports and ideas for effective approaches. https://www.icsi.org/_asset/hkt4a4/Accountable-Health-Communities-White-Paper.pdf

- **Let's Move.** Let's Move! is an executive initiative dedicated to solving the problem of childhood obesity. The program emphasizes that everyone has a role to play in reducing childhood obesity, and provides "5 simple steps" guides for parents, schools, community leaders, chefs, children, elected officials, and healthcare providers that give tips and strategies for adopting healthier lifestyles. http://www.letsmove.gov/

Element 7: Selection and Use of Measures and Performance Targets

What it is

Selecting and using measures and performance targets starts with identifying goals and measurable objectives that relate to your priority topics and your chosen health improvement activities. Be sure to identify measures already in use by participating groups, even those required for other purposes. When you select new measures, you also need to identify data sources for those measures. Some regions may choose to set a rate of improvement as a performance target, or set a specific performance level, such as achieving a score of at least 90 percent. Others seek to exceed benchmarks, such as a statewide average rate or the national top 10 percent.

FIELD TESTING THE ACTION GUIDE

The University of Chicago Population Health Management Transformation

The University of Chicago Medicine (UCM) has initiated collaborative efforts with various community partners to improve population health in their city, particularly for residents on the South Side of Chicago. One of the mechanisms being explored to spur greater collaboration among the partners is how to use data and measurement to track individuals across different organizations to get a better picture of overall healthcare services. http://www.uchospitals.edu

Why it is important

The purpose of this work is to *improve* health across a population. Measuring progress, ideally against performance targets, tells you whether your initiative is on track. Assessment of progress toward a given target can also reveal when it is time to modify the approach to achieve better results. For these reasons, measurement is an important part of evaluation activities.

Public- and private-sector leaders increasingly use measures to hold certain organizations accountable for improving health outcomes, including public health agencies, healthcare organizations, and health plans. Accountability is also expanding into other sectors. "Health in all policies" approaches recognize that health outcomes are affected by decisions and actions of organizations and individuals in a range of sectors. To meet accountability expectations, measurement helps gauge whether health outcomes are improving.

The mix of available measures and data sources reflects both abundance and gaps, with a vast array of existing measures and data that do not always meet practical needs. Many organizations feel overburdened with measurement requirements, while others may be "drowning in raw data" but are not able to apply those data for measurement and decisionmaking.

Using many of the available data sources requires specialized skill and sufficient time to address

challenges such as finding a relevant data source, unlocking data that are available only in a "raw" format, and creating meaning from that data through analysis and visual presentation of the results in engaging and insightful ways. Using several data sources is common; yet not all data sources apply the same approaches, such as modes of collection, timeframes, population definitions, levels of analysis, etc. Making sense of the differences among data sources can pose a tremendous challenge. It may be best to acknowledge the variations rather than try to reconcile them. Ultimately, data sources and measure results must translate into "actionable" information so that leaders in public health, healthcare, and other sectors can assess these data and improve population health.[33]

The National Quality Forum (NQF) has a strong interest in population-level measures that are appropriate for assessing shared accountability across a variety of sectors and organizations, and it has endorsed a number of measures related to population health, across varying levels of analysis, including healthcare providers and communities.[34] These measures address health-related behaviors (e.g., smoking, diet) and practices that promote healthy living, community-level indicators of health and disease (e.g., incidence and prevalence) and community interventions (e.g., mass screening), and primary prevention and screening (e.g., influenza immunization).

However, significant gaps persist for measures that focus on the social determinants of health. NQF's Health and Well-Being Standing Committee is encouraging measure development in built environments, especially those that assess children's health within schools. This Committee is also encouraging measures that assess patient and population outcomes that can link to public health activities like improvements in functional status, assessments of community interventions to prevent elderly falls. The Committee is also looking for measures that focus on counseling for physical activity and nutrition in younger and middle-aged adults (18-65 years).

Additionally, there is a need for more measures that incorporate social determinants of health, such as exposure to safe living environments, access to transportation, graduation attainment and literacy, and employment access. Some organizations navigate through these challenges by collecting and analyzing social services data like local police data, nationally collected metrics about crime, transportation, and employment, and linking those with health data.

Work proceeds on multiple fronts to fill the gaps. For example, CMS is currently working with Arbor Research Collaborative for Health to develop a strategic framework and measure development plan for assessing population health in CMS programs. The goal is to bridge clinical care with multisectorial approaches to transform the healthcare system. Stakeholders will provide input to measure developers during the measure development process.

The NQF Measure Incubator is a new, multistakeholder endeavor to assist measure development and testing by creating collaborative partnerships. This effort will address critical measurement gaps by bringing together measure developers, data sets, and financial and technical resources. Population-level measures, specifically those tied to outcomes, can be difficult to construct. The Measure Incubator offers the opportunity to create and test these measures, while standardizing best practices.

Variation in measures—and the resulting diffusion of focus and impact—is a reason why standardization of measurement is critical to making accurate comparisons and assessing performance. The proliferation of measures that have been changed for use in various programs creates significant misalignment across reporting efforts and organizations. This makes it challenging to compare performance across entities. It also confuses those being measured, those using measures, and consumers, and it increases the data collection burden.

Standardized, evidence-based measurement is essential to assess population health improvement. These principles are at the core of NQF's work. The rigorous NQF process for evaluating and endorsing measures helps to standardize performance measures, preferred practices, and conceptual frameworks. By doing so, these standards can be used to reliably compare performance, ensure accountability is accurately applied, and support quality improvement activities.

How it can be done

There is no universally recommended, practical set of population health measures for which there are widely available data sources. The availability of certain measures should not dictate priorities. Instead, the organizational planning and priority-setting process (Element 5) should drive the measure selection. A shared framework for measurement can also be used as a way to build consensus.

In 2015, three new measure resources became available, and each provides a useful framework for deciding how to approach population health measurement:

- **The Institute of Medicine** issued the Vital Signs report, which includes a set of core metrics for assessing health and healthcare progress. The recommendations contained in this report promote measurement of a broad array of health determinants and outcomes, while also emphasizing the importance of improving measure alignment. http://www.iom.edu/Reports/2015/Vital-Signs-Core-Metrics.aspx
- **The Robert Wood Johnson Foundation** developed a set of metrics for their Culture of Health initiative, which takes a holistic view of health. The underlying framework may be useful for consideration in other population health measurement efforts. The report called "Measuring What Matters" was released in November 2015. http://www.rwjf.org/en/culture-of-health/2015/11/measuring_what_matte.html
- **100 Million Healthier Lives,** convened by the Institute for Healthcare Improvement, seeks to fundamentally transform the way the world thinks and acts to improve health, well-being, and equity to get to breakthrough results. http://www.100mlives.org/

Understanding community health status requires the ability to define and analyze subpopulations. In 2015, the *American Journal of Preventive Medicine* published the result of a study that took a standard data set—Florida mortality data—and showed the wide variety of insights that can be gleaned when such data are broken into subpopulations using the following variables: gender, race, age band, cause of death, year, and county. Applying different selection and weighting of criteria can lead to a range of conclusions regarding the most important population health outcomes. The study observed that using existing sources of data for such subpopulation analytics could inform population health improvement, making data more actionable than more general analyses can achieve.[35]

In 2011, the Assistant Secretary of Health and Human Services prioritized community-level core measurement and sought the insight of the National Center on Vital Health Statistics (NCVHS) Population Health Subcommittee. This initiative identifies metrics that have health as the primary focus, extend beyond healthcare, and address social determinants of health. The Subcommittee recognizes the utility of a broad framework, the importance for allowing local-level selection, and the challenge facing communities attempting to manage the amount of data needed for this work. Finalized recommendations from the Subcommittee are forthcoming, but this work shows national-level commitment to support population health improvement measurement.

Groups working on population health improvement need data sources that are relevant to their region. Often this will include a mix of data from the local, state, and/or national levels. Ideally, the data are granular enough to allow the group to measure performance in ways that inform their specific

activities. The following is a partial list of data sources that multistakeholder groups use to assess their progress in improving population health.

- Air Quality System Data Mart (Environmental Protection Agency)
- American Community Survey (Census Bureau)
- Behavioral Risk Factor Surveillance System (BRFSS / CDC)
- Bureau of Labor Statistics
- Census Data (variety of topics)
- County Health Rankings and Roadmaps
- Department of Justice Open Data
- Fatality Analysis Reporting System (National Highway Traffic Safety Administration)
- Food Atlas (U.S. Department of Agriculture)
- Food & Drug Administration Data Sets
- Kids Count Data Center (Annie E. Casey Foundation)
- Maternal & Child Health Bureau (HRSA)
- National Center for Education Statistics (Department of Education)
- National Core Indicators for Persons with Developmental Disabilities
- National Core Indicators – Aging and Disabilities
- National Survey on Drug Use and Health (SAMHSA)
- National Vital Statistics (CDC)
- Personal Outcome Measures (Council on Quality and Leadership)
- Pregnancy Risk Assessment Monitoring System (PRAMS/CDC)
- State Cancer Profiles (CDC)
- National Behavioral Health Quality Framework (SAMHSA)

In addition, organizations looking for useful data sources might consider contacting local or state public health departments and/or schools and programs of public health; State Medicaid programs; school districts and/or colleges and universities; health plans or health insurance marketplaces; police departments; healthcare systems that use electronic medical records; and other organizational partners that may have access to unique data sets related to population health.

Appendix D contains additional resources for finding data that you may find useful for population health assessment and improvement.

One resource that addresses issues around data and measurement for community improvement is:

- **What Counts – Harnessing Data for America's Communities**. This report highlights a wide variety of related topics, including how to transform data into information that is relevant for policy; data access and transparency; and strategic practices for using data. Real-life examples are provided, demonstrating how communities have made practical use of data to improve the health and well-being of their populations. http://www.whatcountsforamerica.org/

Data sources will continue to expand, in part due to increased reporting requirements and public and private support for transparency. Advances in technology have enabled collection and sharing of de-identified data. New data sources are also appearing, such as consumer-generated data drawn from social media.

Given the dependence on available data and other differences among regions, you might initially choose a focused set of measures that address priorities and for which data exist, then expand or refine the approach over time. In other words, adopt a phased approach.

Consider using disparities-sensitive measures to assess differences in health status or outcomes for ethnic or racial groups, and other vulnerable populations. These measures can detect

differences in health status or quality across healthcare settings or in relation to certain benchmarks, and identify differences among subpopulations or social groupings based on race, ethnicity, language, and other characteristics.

Drawing from a previous assessment of 26 reports that evaluate population health improvement, Table 2 lists the most common measures and indicators that were used, grouped by topic or domain.[36]

Take a practical approach. Identify measures already in use, any new measures needed to fill gaps, and the data available for the region. Consideration of program funding, alignment with state initiatives, local health system reporting requirements, and stakeholder priorities may also affect measure selection. For data, use sources that are high-quality, relevant, understandable, and timely, if possible. Over time, what may start as a short list of population health measures will become more robust as the field evolves.

Eventually, for each measure used, groups set expectations or targets for future performance. To increase buy-in, you may set an initial target simply to see improvement over time. Other options for targets include using comparison benchmarks, such as performing better than a state or national average. In some cases, data regarding percentiles are available, allowing for a stretch goal to be in the top 10 percent or higher. The most appropriate performance target will be influenced by factors such as level of trust among the collaborative partners, available data, the current level of performance, and the likelihood of significant improvement within the measurement timeframe.

TABLE 2. EXAMPLE OF POPULATION HEALTH MEASURES BY TOPIC

Topic/Domain	Measures/Indicators
Health status/health related quality of life (total population level)	• Life expectancy • Healthy life expectancy • Years of potential life lost • Healthy days (physically, mentally) • Self-assessed health status • Expected years with activity limitations • Expected years with chronic disease
Health outcomes **Ultimate/final (total population level)**	• Mortality (death rates) • Morbidity (e.g., disease or injury rates, obesity rates, mental health) • Pregnancy and birth rates • Health status and health-related quality of life
Health outcomes **Intermediate (total population level)**	• Levels of risk behaviors (e.g., diet, physical activity, tobacco use, alcohol/drug use) • Rates of access to, use of, and coverage of preventive services (e.g., cancer screening, immunizations, weight loss intervention, smoking cessation) • Physiologic measures (e.g., controlled blood pressure or cholesterol levels)
Determinants of health (total population level)	**Social environment** • Poverty level • High school graduation rates • Exposure to crime and violence, neighborhood safety • Affordable and adequate housing **Physical environment** • Built environment (transportation options, availability of healthy foods, recreational facilities and parks, neighborhood walkability) • Exposure to environmental hazards (air, water, food safety) • Natural environment (e.g., access to green space, protection from natural disasters) **Clinical care** • Access to healthcare services and insurance coverage • Unmet health needs or delayed care **Behaviors** • Rates of tobacco use, alcohol misuse, physical inactivity, and unhealthy diet
Health improvement activities – capacity, process, and outcomes (subpopulation level)	**Capacity** • Electronic health records and integrated surveillance systems • Preparedness surge capacity and response times • Materials translated, health literacy • Quality improvement projects **Processes** • Effective and efficient care coordination and case management • Adherence to health promotion or treatment advice • Levels of risk behaviors (e.g., diet, physical activity, tobacco use, alcohol/drug use) • Rates of access to, use of, and coverage of preventive services (e.g. cancer screening, immunizations, weight loss intervention, smoking cessation) **Outcomes** • Physiologic measures (e.g., controlled blood pressure or cholesterol levels) • Preventable hospitalizations and readmissions • Patient satisfaction • Timely and appropriate care received

Element 8: Joint Reporting on Progress Toward Achieving Intended Results

What it is

Joint reporting on progress toward achieving intended results is a way for groups and organizations in a partnership to share information on successes and problem areas. This could relate to various elements described earlier in the *Guide*, such as the needs assessment and asset mapping, evaluation of activities, and use of measures and performance targets. Sharing information is important for collaborating groups, but sharing with the larger community has value as well.

Why it is important

Joint reporting establishes the accountability of each organization to the others in an initiative. In addition, pulling together the results of health improvement activities (Element 6) and sharing that information with all participants keeps everyone informed about the progress of the work and creates common ground for shared learning. It also helps to identify where greater collaboration might improve results. This reporting should align with the areas of evaluation that are part of the planning and priority-setting process (Element 5) to reinforce the shared commitment to achieving the intended results at various levels.

FIELD TESTING THE ACTION GUIDE

The Colorado Cross-Agency Collaborative

Several state agencies in Colorado came together to collaborate and develop a statewide strategy to improve population health. The agencies have a particular interest in sharing data and jointly reporting results of key metrics. By making this concerted effort to better align resources, the agencies can be more efficient and more readily track progress on policies and programs that affect the health of all residents of Colorado. https://www.colorado.gov/pacific/hcpf/colorado-cross-agency-collaborative-reports

How it can be done

Joint reporting requires strong alignment among partner groups and engaged stakeholders through prior building of trust among participating organizations. For more about this, see the section on leadership (Element 2). In addition to reporting on health outcomes, the content of reports might address impact on social values or perceptions about health, return on investment, and elements that indicate the progress of the overall initiative. Such reporting might typically begin as private sharing of results among participating organizations, either reported individually or developed as a single report about the collaborative and individual efforts. Given the importance of transparency and accountability, the ultimate goal is to share the progress reports with the general public.

Here are examples of reports or initiatives that address this topic:

- **HealthLandscape.** An interactive mapping tool, this online resource is intended for use by a variety of stakeholders interested in analyzing and displaying information about health and health determinants. Maps can be created from publicly available data sources related to education, healthcare, criminal justice, etc. http://www.healthlandscape.org/
- **National Health Service Care Data.** While the National Health Service (NHS) in the United Kingdom has collected and used hospital data for the last few decades as part of its national database, a new initiative aims to expand the amount of information available to patients, clinicians, researchers, and planners. The NHS claims that "better information means better care" and will ensure consistency in quality and safety, and highlight areas where more investment is needed. http://www.england.nhs.uk/ourwork/tsd/care-data/

- **Primary Care and Public Health – Exploring Integration to Improve Population Health.** The National Academy of Medicine (formerly the Institute of Medicine) identified a set of core principles derived from successful integration efforts that involve the community in defining and addressing needs for population health improvement. The framework emphasizes that the collection and use of data to assess needs and progress is important to the integration process, and that sharing data appears to be a natural way in which primary care and public health can work together. http://www.nap.edu/read/13381/chapter/1

Element 9: Indications of Scalability

What it is

Scalability refers to the potential for an initiative to expand, either by becoming more deeply involved in a region—for example, increasing the number of participating organizations or taking on new priority topics and related health improvement activities—or by sharing the lessons learned with others to motivate spread to additional regions. The latter can happen either as the initiative grows geographically or when a new group learns from the work and decides to take a similar approach.

Expansion of initiatives to new areas is not guaranteed and does not always happen even when the evidence clearly shows that a program has achieved intended, positive results.

FIELD TESTING THE ACTION GUIDE

Community Service Council of Greater Tulsa

The Community Service Council of Greater Tulsa located in Tulsa, Oklahoma, is a 75-year-old research and planning organization supporting the health and human service sector. The Council supports over 30 programs, initiatives, and coalitions. To address scalability, the Council's long-standing community relationships have been essential in advancing their work. Scalability was built into the Maternity Medical Home Project grant proposal, addressed through a series of annual improvements in the coordination of care and unbundling payments, and further facilitated by a value-based payment model to support future statewide scalability. http://www.csctulsa.org

Why it is important

Poor health is a problem everywhere in the United States. When population health initiatives succeed and the lessons learned contribute to new initiatives in new regions, the possibilities for achieving better health for more people expand. That said, achieving traction in other regions may not always be possible, especially if the population health improvement work relies on assets or characteristics that are unique to a region.

How it can be done

During the planning process (Element 5), consider and emphasize activities that others can easily expand or adopt. During the asset mapping process (Element 4), consider which assets might be unique to either one subpopulation or to a smaller geographic part of the whole geopolitical area. These unique assets may limit the ability to spread the initiative across the entire population and/or geopolitical region.

Here are examples of reports or initiatives that address this topic:

- **Camden Care Management Program and Cross-Site Learning.** This program was developed by the Camden Coalition of Healthcare Providers started in Camden, New Jersey, using data to target and coordinate care for patients who lack consistent primary care and often suffer from chronic illness, mental illness, and substance use disorders. The Cross-Site Learning program is now being implemented in 10 cities. http://www.camdenhealth.org/cross-site-learning/

- **ENACT**. This is a database of local policies from the Strategic Alliance to Promote Healthy Food and Activity Environments. The information in this database can be used to spread programs to additional areas, and change the policy infrastructure in ways that support long-term sustainability of population health improvement programs. http://eatbettermovemore.org/sa/policies
- **Healthy Communities Institute (HCI).** This organization provides customizable, web-based information systems to help communities create custom websites—with far less overhead and time required than starting from scratch—that draw from the best-available local data to show indicator dashboards and GIS maps. The Healthy People 2020 Tracker helps evaluate the effectiveness of the local group's programs and the health of the community compared to national goals. HCI websites have been replicated by many communities across the country. http://www.healthycommunitiesinstitute.com/
- **Help Me Grow.** This program provides a system to assist states in identifying at-risk children, and then helps link families with existing community-based programs and services. A national center serves as a resource to support the replication of Help Me Grow systems throughout the country. Nearly half of the states in the country are Help Me Grow affiliates. http://www.helpmegrownational.org/
- **State Innovation Models Initiative.** This initiative led by the Centers for Medicare & Medicaid Services (CMS) intends to foster the testing and development of state-based models for improving health system performance through multipayer payment reform and other system changes. The projects are broad-based and focused on enrollees of Medicare, Medicaid, and the Children's Health Insurance Program (CHIP). The initiative is exploring models that could form a foundation for expansion into larger health system transformation. http://innovation.cms.gov/initiatives/state-innovations/

Element 10: A Plan for Sustainability

What it is

Sustainability is the ability to continue operating, funding the work, and remain productive over time. In addition to developing a sustainable business model, adaptability and resilience are keys to sustaining initiatives.

Why it is important

In the current policy environment, health improvement has gained new relevance: poor health outcomes are widely understood as a major problem, coupled with unsustainable healthcare costs. Population health improvement is a complex field, and many public health agencies and others have been working to improve population health for years. Achieving a lasting, positive impact depends on multifaceted, sustainable approaches that address health improvement in activities across multiple determinants of health over the long term.

How it can be done

Knowing what approaches can continue over time, with appropriate support and financial stability, is not easy. Develop and implement a sustainability plan or a business plan based on a sustainable model to succeed for the long run.

Receiving a multiyear grant or being funded through a government project does not substitute for a solid sustainability plan. Even multiyear grants and government programs eventually come to an end. However, options to secure financial support do exist. They include social investment funds, social venture capital, or engaging payers as investors. In each of these cases, you will have to make your case for the expected return on investment for any funding provided to improve population health.

Opportunities exist given the rapidly changing health policy environment. When engaging in

population health improvement, the ability to motivate structural changes can increase the likelihood that you will sustain the gains you make. Examples of structural changes include new or revised commitments (e.g., public or private policy or contract provisions that incentivize better health or incorporate health in all policies), new patterns of care and coordination among different organizations, and linking medical and public health information systems. Examples of new policy opportunities include Accountable Care Organizations, Accountable Health Communities, Patient Centered Medical Homes, community health improvement requirements for nonprofit hospitals (see Element 4), and public health department accreditation.

Here are some examples of how changes in public policy can sustain conditions that promote good health:

- Tobacco use prevention and cessation is promoted with smoke-free workplaces and public places.
- Physical activity for children increases under policies that allow and promote safe routes to schools and open school recreation areas for after-school community use.

FIELD TESTING THE ACTION GUIDE

Michigan Health Improvement Alliance

The Michigan Health Improvement Alliance (MiHIA) is a multistakeholder, not-for-profit organization with a mission to improve the health of the population in a 14-county region in central Michigan through effective use of information and collaboration. MiHIA has focused on sustainability by leveraging multiple assets crucial for their ongoing work, such as convening power, an engaged Board, passionate participants, a comprehensive health dashboard, and a strong track record of successes. http://www.mihia.org

- Establishing farmers' markets is possible once land use planning policies allow for such activities.
- Access to healthy foods and beverages improves when school vending machine policies follow nutrition guidelines.

While activities that encourage changes in public or private policy sometimes involve political advocacy, this is not always the case. An example of a private-sector policy change is when employers encourage employees to make use of covered preventive services and smoking cessation programs. Employers could also begin assessing and reporting (Element 8) the degree to which their employees use such benefits.

Here are examples of reports or initiatives that have successfully addressed this topic:

- **A Healthier America 2013: Strategies to Move from Sick Care to Health Care in Four Years.** This guide for improving the nation's health system focuses on various strategies and priorities for achieving sustainability, in addition to recommendations for shifts in governmental funding. Suggested policies include ensuring sufficient and stable funding for public health departments, with recommendations to explore new funding models based on supporting basic capabilities. http://healthyamericans.org/report/104/
- **Georgia Health Policy Center Sustainability Framework.** This framework identifies components that contribute to organizational and programmatic sustainability. http://www.raconline.org/sustainability/pdf/georgia-health-policy-center-sustainability-framework.pdf
- **Health in All Policies.** The Health in All Policies guide for state and local governments defines sustainability as "the need of society to create and maintain conditions so that humans can fulfill social, economic, and other requirements of the present without compromising the ability of future generations to meet their own needs."

The document focuses on environmental sustainability as an essential part of ensuring the longevity of health improvement plans, with examples referenced throughout. http://www.phi.org/resources/?resource=hiapguide

- **HICCUP.** As part of work for the Health Initiative Coordinating Council, an assessment of financing opportunities for communities working on population health initiatives was completed and highlighted in an online document. https://d3aencwbm6zmht.cloudfront.net/asset/486425/KIN_Challenge_HICCup_6-9-14.pdf

CONCLUSION

This final version of the Action Guide, version 3.0, is a handbook describing 10 key elements to consider when working to improve population health. It takes a broad look at a variety of important issues and provides links to information and useful resources for more detail. While the field of population health improvement will continue to evolve, this *Action Guide* can be a helpful starting place to gather ideas and connect to online resources that are expanding and being refined over time.

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35 Studnicki, Fisher JW, German DC, et al. Demonstrating subpopulation analytics: A paradigm shift for improving population health. *Am J Prev Med.* 2015;49(4):e47-e52.

36 Jacobson DM, Teutsch S. *An Environmental Scan of Integrated Approaches for Defining and Measuring Total Population Health by the Clinical Care System, the Government Public Health System, and Stakeholder Organizations.* Washington, DC: NQF; 2012.

APPENDIX A:
Methodological Approach

The first two versions of this *Action Guide* were developed under the guidance of the project Committee, incorporating practical insights from 10 field testing groups and input from the general public. The field testing groups are engaged in population health improvement, and they volunteered to review, apply, and help refine the *Guide*. The NQF project team regularly interacted with these field testing groups to learn from their implementation activities associated with the *Guide*, then used the input to make the *Guide* more specific and practical. As a result of the continued support of the Department of Health and Human Services, this final version of the *Action Guide* includes a deeper focus on the measures and data sources informed by the real world experiences of the 10 field testing groups.

This *Action Guide* reflects and builds on insights from the following sources:

- Input from 10 field testing groups working on population health improvement. See **Appendix H**.
- NQF Population Health Framework Committee, a multistakeholder group of experts providing guidance regarding the development of the *Guide*. For a list of Committee members and a summary of their activities, go to http://www.qualityforum.org/projects/population_health_framework.
- *Multistakeholder Input on a National Priority: Working with Communities to Improve Population Health. Environmental Scan and Analysis to Inform the Action Guide*, developed by a project team at NQF in 2013. This report assessed key elements in a wide variety of existing conceptual frameworks, in addition to core aspects of programs being implemented at the local, state, or national levels, to identify insights regarding potential content for the *Action Guide*.[1]
- *An Environmental Scan of Integrated Approaches for Defining and Measuring Total Population Health*,[2] commissioned by NQF in 2012. Jacobson and Teutsch established definitions for key concepts and a list of recommendations that provided a starting point for the environmental scan, including criteria that were used to assist with selection of the frameworks and initiatives in the *Action Guide*. Given the tremendous amount of research and thousands of programs focused on population health improvement, the *Action Guide* was designed to gather a representative range of examples that present a strong cross-section of insights.

ENDNOTES

1 StollenWerks Inc., NQF. *Environmental Scan and Analysis to Inform the Action Guide*. Washington, DC: NQF; 2013. Available at http://www.qualityforum.org/WorkArea/linkit.aspx?LinkIdentifier=id&ItemID=74400. Last accessed July 2014.

2 Jacobson DM, Teutsch S. *An Environmental Scan of Integrated Approaches for Defining and Measuring Total Population Health by the Clinical Care System, the Government Public Health System, and Stakeholder Organizations*. Washington, DC: NQF; 2012. Available at http://www.qualityforum.org/WorkArea/linkit.aspx?LinkIdentifier=id&ItemID=70394. Last accessed July 2014.

APPENDIX B:
Links to Helpful Resources

Listed below are the 10 elements and links to sources of additional information, tools, and other resources that relate to each topic. These may change over time, but many were identified as useful by the project Committee and/or field testing groups.

Element 1: Resources for Collaborative Self-Assessment

- **County Health Ranking and Roadmaps – Tools and Resources.** This Robert Wood Johnson program provides a database and a large number of tools to help assess readiness and the resources and needs of your region. http://www.countyhealthrankings.org/resources?f[0]=field_global_action_steps%3A18389

- **Are You Ready to Pursue the Triple Aim?** This is an online assessment provided by the Institute for Healthcare Improvement intended to help health-related organizations or systems, or coalitions of organizations working to improve health and healthcare, get ready to pursue the Triple Aim—including population health improvement. http://www.ihi.org/Engage/Initiatives/TripleAim/Pages/TripleAimReady.aspx

- **Community Commons – Community Health Needs Assessment Toolkit**. This toolkit is a free web-based platform designed to help hospitals and organizations understand the needs and assets of their communities, and work together to make measurable improvement in population health. http://assessment.communitycommons.org/CHNA/

- **Collective Impact Forum:** This is a site for groups practicing collective impact, with information, tools, discussion, and other resources that may be helpful during planning and priority-setting. http://collectiveimpactforum.org/

Element 2: Resources for Leadership Across the Region and Within Organizations

- **Pioneering Healthier Communities: Lessons and Leading Practices.** This document shares the seven "leading practices" learned through YMCA initiatives and explains how other organizations can implement these principles. http://www.ymca.net/sites/default/files/pdf/phc-lessons-leading-practices.pdf

- **Working Together, Moving Ahead: A Manual to Support Effective Community Health Coalitions**. This handbook is designed to support those who participate in coalitions, provide staff support to coalitions, provide funding or in-kind resources to coalitions, or require their grantees to organize and utilize coalitions in their work. It provides practical advice on common concerns and problems facing coalitions. The manual aims to get people thinking about why they have chosen to use coalitions in their work, about their assumptions in building coalitions, and about the structures and processes they are using with coalitions. http://www.policyarchive.org/handle/10207/21720

- **Community How-To Guide on Coalition Building.** This guide from the National Highway Safety Transportation Administration provides guidance on bringing together a diverse group of people in pursuit of a common goal. The guide is part of a set to assist with underage drinking prevention efforts; however, the information is not topic-specific and can be applied to various population health improvement projects. http://www.nhtsa.gov/Driving+Safety/Community+Traffic+Safety/Community+Traffic+Safety+Building+Coalitions

- **County Health Rankings and Roadmaps.** The "Action Cycle" includes an interactive graphic exploring the various stakeholders that should be included in population health projects, along with guidance on how to connect and work together. http://www.countyhealthrankings.org/roadmaps/action-center

Element 3: Resources for Audience-Specific Strategic Communication

- **County Health Rankings and Roadmaps.** The "Action Center" framework provides guidance on effective communication. http://www.countyhealthrankings.org/roadmaps/action-center/communicate
- **Disseminating Relevant Health Information to Underserved Audiences: Implications of the Digital Divide Pilot Projects.** This paper examines the digital divide and its impact on health literacy and communication. The digital divide can be a significant impediment in health literacy and information dissemination. http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1255755/
- **Simply Put: A Guide for Creating Easy-to-Understand Materials.** This resource from the Centers for Disease Control and Prevention (CDC) offers insight on how to use plain language, visuals, clear formatting, and cultural sensitivity to communicate effectively with health-related materials. http://www.cdc.gov/healthliteracy/pdf/simply_put.pdf
- **YMCA Pioneering Healthy Communities:** This is a practical toolkit that includes a useful framework for considering how to communicate effectively, using culturally respectful plain language. http://www.ymca.net/healthier-communities

Element 4: Resources for a Community Health Needs Assessment and Asset Mapping Process

- **ACHI Community Health Assessment Toolkit.** The toolkit provides detailed guidance on six core steps of a suggested assessment framework, including, but not limited to, data collection. http://www.assesstoolkit.org/
- **Asset Mapping from the Southern Rural Development Center.** This article explains a process for mapping the assets of a community and provides guidance on collaborating with various organizations and individuals with the goal of community development and enhancement. The article offers an overview of the needs assessment process and then a step-by-step work plan for each element of the model. http://www.nebhands.nebraska.edu/files/227_asset_mapping.pdf
- **County Health Rankings and Roadmaps.** The "Assess Needs and Resources" section of the "Roadmaps" framework provides guidance on taking stock of your community's needs, resources, strengths, and assets. http://www.countyhealthrankings.org/roadmaps/action-center/assess-needs-resources
- **Practical Playbook.** The "Building a Partnership" framework offers guidance on the prioritization process and how various entities can work together to identify needs in the community. https://www.practicalplaybook.org/section/building-partnership
- **Regional Equity Atlas 2.0 and Action Agenda.** This population health improvement tool maps the intersection of chronic disease prevalence data and data on the social, economic, and physical determinants of health for the Portland metro region, providing insight into key findings. As a resource, the Regional Equity Atlas has been used by various Aligning Forces for Quality (AF4Q) projects to identify target areas for health improvement in specific geographic areas. http://clfuture.org/equity-atlas

- **Community Commons – Community Health Needs Assessment Toolkit**. This toolkit is a free web-based platform designed to assist hospitals and organizations to understand the needs and assets of their communities, and work together to make measurable improvement in health in the community. http://assessment.communitycommons.org/CHNA/

- **Resources for Implementing the Community Health Needs Assessment Process**. This set of resources from the CDC helps to translate the requirements of the Affordable Care Act, with the intent to encourage active engagement between hospitals and public health. http://www.cdc.gov/policy/chna/

Element 5: Resources for an Organizational Planning and Priority-Setting Process

- **Guide to Measuring the Triple Aim: Population Health, Experience of Care, and Per Capita Cost.** This 2013 white paper from the Institute for Healthcare Improvement offers a useful logic model for considering drivers of health, with related examples for measuring population health. http://www.ihi.org/resources/Pages/IHIWhitePapers/AGuidetoMeasuringTripleAim.aspx

- **Practical Playbook.** The "Building a Partnership" framework encourages organizations to plan and prioritize, offering guidance on the process. https://www.practicalplaybook.org/section/building-partnership

- **County Health Rankings and Roadmaps.** The "Roadmaps" framework provides guidance on the organizational planning process and how to determine priorities. http://www.countyhealthrankings.org/roadmaps/action-center/focus-whats-important

- **Plan, Do, Study, Act (PDSA).** The PDSA model has been utilized by the National Health Service in the United Kingdom to encourage trials of new policies before implementation. The model consists of four recommended steps to test an idea and assess its impact: planning the change to be tested or implemented (Plan); carrying out the test or change (Do); studying data from before and after the change and reflecting on what was learned (Study); and planning the next change cycle or full implementation (Act). http://www.institute.nhs.uk/quality_and_service_improvement_tools/quality_and_service_improvement_tools/plan_do_study_act.html

- **ReThink Health**. This suite of interactive tools opens up new ways of looking at population health improvement. The intention is to guide leaders in considering the impacts of different policies and interventions and make better and more creative decisions about redesign. http://www.rethinkhealth.org/

Element 6: Resources for an Agreed-Upon, Prioritized Set of Health Improvement Activities

- **The Guide to Community Preventive Services.** The Community Preventive Services Task Force was created by the Department of Health and Human Services to determine which interventions work for improving population health in various settings. Recommendations of the Task Force are available in the Guide to Community Preventive Services, a free resource to help identify programs and policies to improve health and prevent disease in the community. Systematic reviews are used to explore program and policy interventions, effective interventions for specific communities, and the cost and potential return on investment of interventions. http://www.thecommunityguide.org/index.html

- **CDC Community Health Improvement Navigator.** This resource contains information, tools, and a database of effective interventions that can be applied by community organizations, health systems, public health agencies, and

others who are working together to improve health in a community. http://www.cdc.gov/chinav

- **A Compendium of Proven Community Based Prevention Programs.** This report from The Trust for America's Health and the New York Academy of Medicine highlights nearly 80 evidence-based prevention programs that have been proven to improve health and save lives. Topics addressed include tobacco use reduction, asthma, injuries, sexually transmitted infections, alcohol abuse, physical activity, and eating habits. http://healthyamericans.org/assets/files/Compendium_Report_1016_1131.pdf

- **County Health Rankings and Roadmaps.** The "What Works for Health" database includes health improvement activities from the Guide to Community Preventive Services as well as other population health topics. http://www.countyhealthrankings.org/roadmaps/what-works-for-health

- **Institute for Clinical Systems Improvement (ICSI).** This organization has been involved in efforts across the country to promote Accountable Health Communities, and offers a number of reports and ideas for effective approaches. http://www.mpha.net/Resources/Documents/HiAP/accountable_health_communities_white_paper.pdf

Element 7: Resources for Selection and Use of Measures and Performance Targets

- **Population Health Measures Endorsed by NQF.** This list or portfolio of measures contains measures which have been identified by the National Quality Forum as being relevant for population health measurement. http://www.qualityforum.org/QPS/QPSTool.aspx?p=3863

- **Disparities-Sensitive Measures Endorsed by NQF.** This subset of measures includes those which have been identified by the National Quality Forum as being appropriate for assessing disparities, within the population health measure portfolio. http:/www.qualityforum.org/QPS/QPSTool.aspx?p=3865

- **Health Indicator Warehouse.** This online library provides access to national, state, and community health indicators. It serves as the data hub for the HHS Community Health Data Initiative and is a collaboration of various agencies within the department. The Health Indicator Warehouse is referenced by the County Health Rankings and Roadmaps program as a resource for those working on population health projects. http://healthindicators.gov/

Element 8: Resources for Joint Reporting on Progress Toward Achieving Intended Results

- **County Health Ranking and Roadmaps.** This resource shows results for a number of measures and indicators by county across the United States, and clearly describes their methods for developing the rankings that are reported. http://www.countyhealthrankings.org/Our-Approach

- **The Network for Public Health Law: Checklist of Information Needed to Address Proposed Data Collection, Access and Sharing.** This tool provides a checklist to assist public health practitioners in providing relevant factual information to address issues of legality, privacy, and ethics. https://www.networkforphl.org/resources_collection/2014/01/07/400/tool_checklist_of_information_needed_to_address_proposed_data_collection_access_and_sharing

Element 9: Resources for Indications of Scalability

- **Let's Move Initiative.** This national initiative—focused on reducing childhood obesity—uses its website as a tool for sharing best practices and promotional material that others can use. The initiative has encouraged "Let's Move Meetup" programs in more than 400 cities nationwide, where community members get together to share success stories and discuss ways to tackle childhood obesity. Let's Move also uses its Facebook page as a connector for communities to share tips and news from across the country. http://www.letsmove.gov/
- **Practical Playbook.** This resource for public health and primary care groups features an interactive tool that guides users through the stages of integration for population health improvement projects. Information on how to scale up efforts is included. http://www.practicalplaybook.org/

Element 10: Resources for a Plan for Sustainability

- **Healthier Worksite Initiative**. This resource from the CDC addresses workforce health promotion and offers information, resources, and step-by-step toolkits to help worksite health promotion planners in the public and private sectors improve the health of employees. http://www.cdc.gov/nccdphp/dnpao/hwi/
- **A Sustainability Planning Guide for Healthy Communities.** The CDC's Healthy Communities Program has worked with more than 300 community coalitions to help create a culture of healthy living while building national networks for sustainable change. The Sustainability Planning Guide provides evidence-based insights to help coalitions, public health professionals, and other community stakeholders develop, implement, and evaluate a successful sustainability plan. http://www.cdc.gov/nccdphp/dch/programs/healthycommunitiesprogram/pdf/sustainability_guide.pdf

APPENDIX C:
Measures

Listed below are some existing resources that identify measures which may be useful for population health assessment:

America's Children: Key National Indicators of Well-Being

The annual report presents key indicators of children's well-being in seven domains: family and social environment, economic circumstances, healthcare, physical environment and safety, behavior, education, and health. It is compiled by the Federal Interagency Forum on Child and Family Statistics, which includes participants from 23 federal agencies. The forum fosters coordination, collaboration, and integration of federal efforts to collect and report data on children and families. http://www.childstats.gov/

Healthy People 2020 – Measure Domains

This national project defines four areas of health measures used to monitor progress toward promoting health, preventing disease and disability, eliminating disparities, and improving quality of life. These broad, cross-cutting areas of measurement include general health status; health-related quality of life and well-being; determinants of health; and disparities. http://www.healthypeople.gov/2020/about/tracking.aspx

Healthy People 2020 – Leading Indicators of Health

Representing a smaller set of objectives for high-priority health issues, the 26 Leading Health Indicators have baseline and target levels specified, as well as data sources included for each. http://www.healthypeople.gov/2020/Leading-Health-Indicators

Kids Count Data Center

A comprehensive source for data on child and family well-being in the United States, with hundreds of measures, plus downloadable data and the ability to generate reports and graphics specific to your region of interest. http://datacenter.kidscount.org/

County Health Rankings and Roadmaps

The County Health Rankings score communities according to a variety of health measures based on health outcomes and health factors, which are broken down into eight composite areas and then into subcomponent areas. http://www.countyhealthrankings.org/sites/default/files/resources/2015Measures_datasources_years.pdf

A Healthier America 2013: Strategies to Move from Sick Care to Health Care in Four Years

This strategic paper suggests Public Health Accreditation Board (PHAB) accreditation standards in 12 domains: 10 essential public health services; management and administration; and governance. See page 10 of the report. http://healthyamericans.org/report/104/

Clinical-Community Relationships Measures Atlas

This measurement framework lists existing measures for clinical-community relationships and explores ways to define, measure, and evaluate programs that are based on such relationships for the delivery of clinical preventive services. The list of existing measures includes detailed information on each measure's purpose, format, and data source, validation and testing, applications, and key sources. The Master

Measure Mapping Table provides an overview of domains and the relationships involved. See page 10 of the report. http://www.ahrq.gov/professionals/prevention-chronic-care/resources/clinical-community-relationships-measures-atlas

Early Education Readiness Using a Results-Based Accountability Framework

A collaborative of parents and child-serving organizations in Los Angeles County worked together to establish a set of school readiness indicators. The workgroup used the National Education Goals Panel's (NEGP) working definition of school readiness: children's readiness for school, school's readiness for children, family and community supports, and services that contribute to children's readiness for school success. Indicators were also chosen to reflect the five outcomes adopted by Los Angeles County: good health; safety and survival; economic well-being; social and emotional well-being; and education/workforce readiness. http://www.first5la.org/files/ShapingtheFutureReport.pdf

Guide to Measuring the Triple Aim: Population Health, Experience of Care, and Per Capita Cost

This 2013 white paper from the Institute for Healthcare Improvement suggests measures for the three dimensions of the Triple Aim, accompanied by data sources and examples, with descriptions of how the measures might be used. http://www.ihi.org/resources/pages/ihiwhitepapers/aguidetomeasuringtripleaim.aspx

Healthy Communities Data and Indicators Project (HCI)

To serve a goal of enhancing public health, this project includes the development of a standardized set of statistical measures for use in community health planning and assessment. A core list of indicators was developed in 2014, and more than 50 indicators were vetted and constructed, with information on the impact, evidence, data sources, bibliographic references, and methods and limitations of each. A How-To Manual is available, in addition to the project information.
https://www.cdph.ca.gov/programs/Documents/HCI_How-To_Manual10-2014highres.pdf
http://www.cdph.ca.gov/programs/Pages/HealthyCommunityIndicators.aspx
http://www.cdph.ca.gov/programs/Documents/Healthy_Community_Indicators_Core_list10-17-14Table1-5.pdf

HHS Action Plan to Reduce Racial and Ethnic Disparities

The action plan is based on national goals and objectives for addressing health disparities identified by Healthy People 2020 and focuses on evidence-based programs and best practices. Stakeholders include HHS public and private partners, plus other federal partners working together on the initiative, including the Departments of Agriculture (USDA), Commerce (DOC), Education (ED), Housing and Urban Development (HUD), Labor (DOL), Transportation (DOT), and the Environmental Protection Agency (EPA). See Appendix C, page 44 for measures. http://minorityhealth.hhs.gov/npa/templates/content.aspx?lvl=1&lvlid=33&ID=285

Measuring What Works

This resource recommends measures that identify how health outcomes are produced at the community level and how health equity can be achieved by addressing the social determinants of health. http://www.preventioninstitute.org/component/jlibrary/article/id-367/127.html

Regional Equity Atlas 2.0 and Action Agenda

This population health improvement tool maps the intersection of chronic disease prevalence data and data on the social, economic, and physical determinants of health for the Portland

metro region, providing insight into key findings. The tool covers a set of domains that includes measures spanning clinical care, demographics, environment, and social characteristics. http://regionalequityatlas.org/toolkit/equity-atlas-toolkit-overview

THRIVE

This is a framework produced by the Prevention Institute, to support understanding of the ways in which structural drivers play out at the community level to affect the social-cultural, physical or built, economic and educational environments, also known as the determinants of health. http://www.preventioninstitute.org/component/jlibrary/article/id-96/127.html

Toward Quality Measures for Population Health and Leading Health Indicators

Measurement domains include 26 leading health indicators outlined in Healthy People 2020 as well as 12 additional topics: access to health services; clinical preventive services; environmental quality; injury and violence; maternal, infant, and child health; mental health; nutrition, physical activity, and obesity; oral health; reproductive and sexual health; social determinants; substance abuse; and tobacco. See page 15 of the report. http://www.nationalacademies.org/hmd/Reports/2013/Toward-Quality-Measures-for-Population-Health-and-the-Leading-Health-Indicators.aspx

The Institute of Medicine Vital Signs report

Includes a set of core metrics for assessing health and healthcare progress: http://www.iom.edu/Reports/2015/Vital-Signs-Core-Metrics.aspx

The Robert Wood Johnson Foundation Culture of Health

RWJF coordinated the development and selection of metrics for their Culture of Health initiative, which takes a more holistic view of health. The Culture of Health measures highlight opportunities for the United States to improve health and well-being and ultimately build a Culture of Health. http://cultureofhealth.org

APPENDIX D:
Data Sources

Listed below are examples of resources that provide data useful for population health measurement and improvement:

Behavioral Risk Factor Surveillance System (BRFSS)

BRFSS is an on-going telephone health survey system focused on collecting behavioral health risk data. The annual survey data is published online and used by the Centers for Disease Control and Prevention (CDC) and other federal agencies. http://www.cdc.gov/brfss/about/index.htm

Centers for Disease Control and Prevention (CDC) WONDER

WONDER is a collection of databases of public health data. http://wonder.cdc.gov/

Correctional Health Outcomes and Records Data Set (CHORDS)

CHORDS is a clinical outcomes data sharing system being designed for correctional healthcare settings. Data is supplied by jails and other correctional facilities. http://www.ncchc.org/NRI-CHORDS

County Health Rankings and Roadmaps

The County Health Rankings score communities according to a variety of health measures based on health outcomes and health factors, which are broken down into eight composite areas and then into subcomponent areas. http://www.countyhealthrankings.org/app/home

Data.Gov

The U.S. government's data portal provides access to federal, state and local data, as well as tools, research resources, and more. The "Health" section includes 1,125 data sets, tools, and applications related to health and healthcare and can be used as a resource for groups or individuals looking for examples of data or actual data sets for reporting purposes. https://www.data.gov/health/

Data.CDC.Gov

This online database provides access to data sources from the Centers for Disease Control and Prevention (CDC). https://data.cdc.gov/

Data Resource Center for Child & Adolescent Health (DRC)

A project of the Child and Adolescent Health Measurement Initiative (CAHMI). The DRC is a nonprofit, national data resource providing easy access to children's health data from large, population-based surveys on a variety of important topics, including the health and well-being of children and access to quality care. It is sponsored by a cooperative agreement from the Maternal and Child Health Bureau with additional support from a variety of funders and partners. http://childhealthdata.org/

FastStats

FastStats links to statistics on over 100 public health topics from the National Center for Health Statistics, sources for more data, and related websites. http://www.cdc.gov/nchs/fastats/default.htm

Gallup-Healthways Well-Being Index

The Gallup-Healthways Well-Being Index is a measure derived from an empiric database of real-time changes in factors that drive well-being. The database captures perceptions on topics such as physical and emotional health, healthy behaviors, work environment, social and community factors,

financial security, and access to necessities such as food, shelter, and healthcare. Gallup conducts 500 telephone interviews a day with Americans to gather their perceptions of well-being, for a resulting sample that represents an estimated 95 percent of all U.S. households. http://www.healthways.com/solution/default.aspx?id=1125

National Center for Health Statistics

This resource presents data, tables, and figures on health statistics trends. http://www.cdc.gov/nchs/hus/index.htm

National Institutes of Health (NIH) Data Sharing Repository

The National Library of Medicine (NLM) website provides a table of NIH-supported data repositories that accept submissions of appropriate data from NIH-funded investigators (and others). Also included are resources that aggregate information about biomedical data and information sharing systems. http://www.nlm.nih.gov/NIHbmic/nih_data_sharing_repositories.html

University of Minnesota Bio-Medical Library: Health Statistics and Data Sources

The University of Minnesota Health Sciences Library maintains a webpage that gathers a robust list of available metasites, national statistics, state, county, and metropolitan level statistics, and even international statistics, then lists data sites according to disease, condition, or special topic area. https://hsl.lib.umn.edu/biomed/help/health-statistics-and-data-sources

APPENDIX E:
General Resources/Tools

Listed below are examples of resources that can be used as tools for population health measurement and improvement:

Accountable Communities for Health: Taking a Prevention Approach (ACH)

This Prevention Institute provides ideas and resources regarding the ACH health system transformation model to support approaches that emphasize a prevention approach to addressing the social determinants of health. http://www.preventioninstitute.org/component/jlibrary/article/id-366/127.html

ACHI Community Health Assessment Toolkit

The ACHI Community Health Assessment Toolkit is a guide for planning, leading, and using community health needs assessments to better understand and improve the health of communities. Tools include checklists, budgets, and timeline guides and templates for each of the six steps in the framework, with specific guidance on skills needed, budget drivers, time drivers, and a task checklist. http://www.assesstoolkit.org/

The Blue Zones Project

The Blue Zones Project focuses on encouraging individuals and community members to aspire to healthy lifestyle ideals, which are based on research into communities around the world with the highest number of centenarians. An online community provides guidance and tips ranging from healthy eating to stress management, and the project also includes “policy pledge actions” for schools, workplaces, local government entities, and communities pertaining to the physical environment, food, and smoking. https://www.bluezonesproject.com/

Camden Care Management Program and Cross-Site Learning

This program through the Camden Coalition of Healthcare Providers includes development of a database to analyze and quantify the utilization of hospitals by Camden, New Jersey residents. This tool relies on data from the Camden’s Health Information Exchange (HIE) to target and coordinate care for patients who lack consistent primary care and often suffer from chronic illness, mental illness, and substance abuse. The Cross-Site Learning program is being implemented in 10 cities. Tools, planning guides, and other materials are being provided to expand “hot spotting” to other locations. http://www.camdenhealth.org/cross-site-learning/

Community Centered Health Homes: Bridging the Gap Between Health Services and Community Prevention

The Prevention Institute offers ideas and resources regarding how to integrate clinical service delivery with community prevention to improve health, safety, and equity outcomes. Learn from approaches that community health centers can take to promote community health even as they deliver high quality medical services to individuals. http://www.preventioninstitute.org/component/jlibrary/article/id-298/127.html

County Health Rankings and Roadmaps

The Roadmaps to Health Action Center provides an interactive framework (“The Action Cycle”) for organizing and planning initiatives, projects, and collaborative actions aimed at population health improvement. The County Health Rankings is a tool providing information about the health of populations by county, including health outcomes and a broad set of health determinants.

The website provides access to all of the data underlying the rankings and a guide to evidence-based policies, programs and system changes ("What Works for Health") and a "Tools & Resources" page with external links to educational materials and additional tools. http://www.countyhealthrankings.org/

Family Wellness Warriors Initiative

This Alaska-based antidomestic violence initiative holds multiday trainings to educate "natural helpers" and community members on how to work with people affected by violence, reduce abuse in the community, and implement the program's antiviolence curriculum. The program's website also includes a map with localized resources, such as counseling centers, for violence and abuse prevention. http://www.fwwi.org/index.cfm

Green Strides

This is a U.S. Department of Education initiative aimed at making all schools healthier, safer, and more sustainable. Resources include a webinar series, blog, and social networking to facilitate sharing of best practices and resources. The resources page lists tools for schools, teachers, parents, and students to use in planning and execution of improvement strategies, such as reducing environmental impact and cost, promoting health and wellness, and learning about environmental sustainability. http://www.greenstrides.org/

The Guide to Community Preventive Services

The Guide to Community Preventive Services is a free resource to help identify programs and policies to improve health and prevent disease in the community, based on recommendations from the Community Preventive Services Task Force. http://www.thecommunityguide.org/index.html

Healthy Communities Institute (HCI)

The Healthy Communities Institute provides customizable, web-based information systems to visualize the best-available local data through indicator dashboards and GIS maps. Supporting tools include Indicator Trackers for evaluation, a database of more than 2,000 best practices, and collaboration tools to support ongoing collective work. The database includes more than 100 quality-of-life indicators for any community and the ability to add custom indicators locally. The Healthy People 2020 Tracker helps evaluate the effectiveness of the local group's programs and the health of the community compared to national goals, and custom trackers can be locally created to track local priorities and progress towards locally defined targets. http://www.healthycommunitiesinstitute.com/

Health in All Policies: A Guide for State and Local Governments

The Health in All Policies guide includes "Food for Thought" questions in each section that leaders of a Health in All Policies initiative are encouraged to consider. The guide also includes tips for identifying new partners, building meaningful collaborative relationships across sectors, and maintaining those partnerships over time, as well as more than 50 annotated resources for additional support. http://www.phi.org/resources/?resource=hiapguide

Let's Move

Online resources from the Let's Move initiative include "5 simple steps" guides for parents, schools, community leaders, chefs, children, elected officials, and healthcare providers on how to play a role in preventing and reducing childhood obesity and living and promoting healthier lifestyles. The website also includes educational materials for printing and distribution within communities. http://www.letsmove.gov/action

Moving Healthy

This overview of the health-related strategies being explored by the U.S. Department of Transportation Federal Highway Administration (FHWA) refers to tools and resources to help transportation professionals and health practitioners identify and address the health impacts of transportation. https://www.fhwa.dot.gov/planning/health_in_transportation/resources/moving_healthy.cfm

The National Prevention Strategy

The Surgeon General's website for this national initiative features resources related to the National Prevention Strategy, including fact sheets, infographics, implementation, and scientific resources. http://www.surgeongeneral.gov/priorities/prevention/strategy/

One in 21 Muskegon County

This is the umbrella program for local initiatives like "Project Healthy Grad" and includes educational information, links to farmers' markets and other local resources for Muskegon County, Michigan. http://1in21.org/resources

Operation Live Well

This initiative—aimed at improving the health of military personnel and their families—includes resources related to key focus areas and preventive health, plus a list of health tools from various organizations. http://www.health.mil/livewell

Practical Playbook

This resource for public health and primary care groups features an interactive tool that guides users through the stages of integration for population health improvement projects. http://www.practicalplaybook.org/

In addition, *The Practical Playbook: Public Health and Primary Care Together* is a textbook used in medical school and family medicine residency curricula to spur integration of public health and family medicine. This book brings together the expertise of primary care and public health in response to recommendations of the 2012 Institute of Medicine report, "Primary Care and Public Health: Exploring Integration to Improve Population Health." https://www.practicalplaybook.org/section/building-partnership

Regional Equity Atlas 2.0 and Action Agenda

This project includes maps of the Portland, Oregon, region using data on chronic disease prevalence and social, economic, and physical determinants of health, and provides key findings. A mapping tool allows for customized creation of maps on issues affecting the region. http://regionalequityatlas.org/programs/regional-equity-atlas/about-regional-equity-atlas-project/original-equity-atlas/original-12

Shaping the Future Report

This report presents school readiness goals and indicators to guide planning and accountability around children's readiness for school in Los Angeles County. The tool was created to engage community stakeholders, monitor trends, and implement a results-based accountability framework. http://www.first5la.org/files/ShapingtheFutureReport.pdf

The Substance Abuse and Mental Health Services Administration (SAMHSA)

SAMHSA provides resources and guidance on substance abuse, mental illness, trauma and justice, health reform, health information technology, public awareness and support, outcomes and quality, and recovery support. This includes access to tools, materials, and links to external organizations. http://www.samhsa.gov/

Vermont Blueprint for Health

This is a state-led initiative aimed at transforming the way that healthcare and health services are delivered in Vermont by providing the community with a continuum of seamless, effective, and preventive health services, while reducing medical costs. Tools include healthier living and tobacco cessation workshops, plus educational materials and guidance on how to implement the Blueprint. http://blueprintforhealth.vermont.gov/

YMCA Healthier Communities Initiatives

The YMCA provides resources for promoting healthier communities, including a guide on linking policy and environmental strategies to health outcomes and the Community Health Living Index (CHLI), which contains self-assessments and provides best practices to promote improvement. http://www.ymca.net/healthier-communities

APPENDIX F:
Population Health Field Testing Group Profiles

Profiles for each field testing group (FTG) are outlined below. Each profile provides a brief background about the FTG, its approach to population health improvement work, and the metrics and data used or being sought for use to measure the impact of their work.

FIELD TESTING GROUP PROFILE (AS OF SUMMER 2016)

Colorado Cross-Agency Collaborative

Colorado State agencies have leveraged reporting of measure results by setting priorities for all state-level population health improvement efforts. The intent is to improve collaboration while increasing the impact of targeted interventions to improve the health of Coloradans. The Collaborative is dedicated to a statewide strategy to improve population health. Data alignment and sharing of information across agencies will reduce duplicative data collection and integrate strategies, consistent with a long-term vision of cross-agency measurement and evaluation of policies and programs.

Goals and Approach

The Colorado Cross-Agency Collaborative (CCAC) comprises the Department of Human Services, the Department of Public Health and Environment, and the Department of Health Care Policy and Financing, partnering under a 2013 initiative to "build a comprehensive and person-centered statewide system that addresses a broad range of health needs, delivers the best care at the best value, and helps Coloradans achieve the best health possible."[1] The CCAC produces annual reports focused on specific health issues in Colorado, using cross-agency data to identify trends, develop aligned initiatives and set standardized performance benchmarks and targets. Focus areas have included behavioral health (2014), child health (2015), and health in adults 65 and over (2016).

In this aligned data strategy, the CCAC considers metrics for collaborative projects and statewide programs like the Colorado Opportunity Project, a pilot program with the goal "to deliver proven

Colorado Opportunity Project Measures

Family Formation (positive circumstances at birth): A planned pregnancy, born at healthy birth weight, to a dual parent household without maternal depression.

Early Childhood (ages 0-5): School readiness, healthy social-emotional skills and the families' access to affordable, nutritious food.

Middle Childhood (ages 6-11): Math/Reading Skills and healthy social-emotional skills.

Adolescence (ages 12-17): Graduates from high school on time, has developed healthy social-emotional skills and has not been convicted of a crime, nor become a teen parent.

Transition to Adulthood (ages 18-29): Currently sustainably employed having attended postsecondary education and has good physical/mental health.

Adulthood (ages 30-40): Employment status, has good physical/mental health and is in a middle class household (300 percent FPL)

1 Office of Governor John Hickenlooper. The State of Health: Colorado's Commitment to Become the Healthiest State. Denver, CO: Office of Governor; 2013. Available at https://www.cohealthinfo.com/state-of-health/. Last accessed July 2016.

interventions that create opportunities for all Coloradans to reach middle class by middle age." This program has been implemented in six regions across the state to encourage aligned use of a set of core metrics that span life stages and determinants of health. The core metrics include evidence-based milestones for predicting success in life, defined as an income in adulthood that is 300 percent above the federal poverty level. The indicators include being born at a healthy weight, being prepared for school, graduating from high school, being sustainably employed and maintaining good mental and physical health. Indicators for older and elderly adult life stages are also being developed.

To further improve program efficiency and promote shared resources, the CCAC aims to expand its scope by partnering with other state agencies, such as the Department of Education and the Office of Information Technology, creating a wider data pool that allows for community, state, and national comparisons. The long-term goal to create statewide programs with a shared strategy for improving the health of Coloradans at every population level.

Measure and Data Source Use

Because measure alignment is a relatively new initiative for Colorado state agencies, improvement in outcomes has yet to be identified. However, collaboration around data and metrics via the CCAC has resulted in a significant reduction in duplicative efforts, with state agencies working together to impact the same health disparities through joint initiatives that capture data for sub-populations at risk of being overlooked in broader population health improvement strategies.

For example, the HCP, a program for children and youth with special healthcare needs, partnered with one of the state's Regional Care Collaborative Organizations to provide care coordination more efficiently for this subpopulation. Duplicative efforts were identified for metrics on child birth, with HCP using its own claims data, while the Colorado Department of Public Health and Environment tracked more detailed information from birth certificates. Through the CCAC, there is now a monthly data stream that allows a more comprehensive understanding of newborn trends. The state also recently implemented surveys using the National Core Indicators to capture quality-of-life and experience-of-care metrics for elderly, blind, and disabled populations. Additionally, alignment is underway to define recidivism at the community level and drive better quality of care for individuals after incarceration.

Colorado's collaborating agencies are using existing data sources, such as electronic health records, that can be extracted and combined with other data to allow for enhanced tracking of clinical outcomes. Colorado was awarded a State Innovation Model (SIM) Test Award in 2015 to focus on "integrated physical and behavioral health care services in coordinated community systems, with value-based payment structures, for 80 percent of Colorado residents by 2019."[2] The project will enable further improvement in data sharing and transparency in the state, and provide the opportunity to evaluate collaborative efforts and the impact on health outcomes. The newly formed Office of eHealth Innovation will support Colorado's health information technology infrastructure and assist with the secure exchange of health data and coordinate care. However, the CCAC recognizes that measures are always evolving. As agencies dig deeper into certain measures, effectiveness and impact will be re-evaluated as circumstances change around cost, reliability, validity, and political climate. Funding can also greatly affect which measures are chosen as a focus for collaborative initiatives.

2 Office of Governor, Center for Medicare and Medicaid Innovation (CMMI). Colorado SIM Operational Plan. Denver, CO; 2016. Available at https://www.colorado.gov/healthinnovation/sim-practice-transformation. Last accessed July 2016.

FIELD TESTING GROUP PROFILE (AS OF SUMMER 2016)

Designing a Strong and Healthy NY (DASH-NY)

Designing a Strong and Healthy New York (DASH-NY) brings together partners from multiple sectors to develop sustainable, crosscutting strategies to prevent chronic disease and promote well-being across New York State. It serves as a chronic disease prevention coalition and policy center at The New York Academy of Medicine. DASH-NY was launched in 2010 with support from the New York State Department of Health to address obesity and chronic disease prevention through policy, systems, and environmental changes.

Goals and Approach

The DASH-NY coalition adopted a set of nine policy priorities to address in 2016, focusing on active communities, food policy, healthy schools and childcare, economic and community development, and clinical and community linkages. The priorities were selected by a workgroup in each of the five topic areas, and were chosen as relevant, actionable ways to impact chronic disease and well-being statewide. The coalition uses the definition of "well-being" created by the Centers for Disease Control and Prevention (CDC), which describes "well-being" as "the presence of positive emotions and moods (e.g., contentment, happiness), the absence of negative emotions (e.g., depression, anxiety), satisfaction with life, fulfillment and positive functioning,"[3] and recognizes that chronic disease affects well-being.

To combat chronic disease, DASH-NY focuses on addressing obesity, diabetes, heart disease, and addiction. Budget priorities for 2016-2017 include the United States Department of Health and Human Services' Healthy Food Financing Initiative, and New York's Creating Healthy Schools and Communities initiative. DASH-NY is seeking the shared use of school facilities and accountability for physical education, among other legislative priorities. As part of these priority initiatives, the Coalition is also actively working on building relationships with potential new members who understand the complexity of mental health issues and their effects on food and school policy.

DASH-NY's Measure Topics for Self-Assessment:

- Ability to compromise
- Adaptability
- Appropriate cross section of members
- Appropriate pace of development
- Collaborative group seen as a legitimate leader in the community
- Concrete, attainable goals and objectives
- Development of clear roles and policy guidelines
- Established informal relationships and communication links
- Favorable political and social climate
- Flexibility
- History of collaboration or cooperation in the community
- Members see collaboration as in their self-interest
- Members share a stake in both process and outcome
- Multiple layers of participation
- Mutual respect, understanding, and trust
- Number of attendees to coalition's webinars and conferences
- Open and frequent communication
- Shared vision
- Skilled leadership
- Sufficient funds, staff, materials, and time
- Unique purpose

3 Centers for Disease Control and Prevention (CDC). Health-related quality of life (HRQOL) well-being concepts website. http://www.cdc.gov/hrqol/wellbeing.htm. Last accessed July 2016.

Measure and Data Source Use

After changes in State funding priorities took place in 2015, DASH-NY began exploring options for sustainability and organizational priority setting, which was the focus of their measurement efforts as a field testing group (FTG) working with NQF. An evaluation at the end of the first five-year funding cycle in 2015 revealed key insights that DASH-NY then began using to leverage the efforts of additional stakeholders and advocacy work.

To inform organizational priorities, DASH-NY is using a set of measures for program evaluation and evaluating outcomes related to the impact on policy and budget. Participating as an FTG encouraged the coalition to adopt the *Wilder Collaborative Factors Inventory* tool, which is listed in the *Action Guide* as a resource for self-assessment. DASH-NY is committed to implementing an annual assessment to gauge progress and refine their objectives, with the goal of spurring improvement within a year to 18 months. The measure topics for self-assessment are listed below.

Within these topics, DASH-NY has identified an array of specific measures that they will use, with the intention to be able to show improvement within the relatively short timeframe. Being able to illustrate progress through the use of these assessment metrics is seen as essential as DASH-NY shifts from policy work to being more directly involved in advocacy initiatives.

FIELD TESTING GROUP PROFILE (AS OF SUMMER 2016)

Empire Health Foundation

Empire Health Foundation (EHF) is a private foundation focused on improving population health in the eastern part of Washington State. In addition to providing catalytic investment for health improvement, EHF works to grow public- and private-sector partners to address community needs and priorities. For example, EHF contributed to Priority Spokane, a collaborative effort that included a formal planning process to improve high school graduation rates in the region. EHF's organizational structure allows them to meet the evolving needs of the community and culture, while supporting innovative ideas. EHF incubated the formation of three subsidiary organizations, the Family Impact Network to improve overall well-being for children in the welfare system, Better Health Together as a collaborative focused on innovative action for health improvement, and Spokane Teaching Health Consortium to grow the area's supply of primary care providers.

Goals and Approach

The primary focus of EHF is improving community health and child welfare in the seven-county region. This includes EHF administering $18 million in grants to fund initiatives and organizations around this shared aim. EHF has several anchor strategies focused on improving health in the region.

EHF's current focus is combating pre-homelessness and the impact of homelessness on the well-being of school-age children. In this priority area, EHF's subsidiary Better Health Together (BHT) aims to advance the goals of the triple aim—better health, better care and reduced cost—by addressing the social determinants of health. Better Health Together is collaborating with Providence Health Care, Spokane Fire Department Catholic Charities, Volunteers of America, and the City of Spokane in the Hot Spotter Program, to link high utilizers of the emergency management and healthcare system to supportive housing and proper medical care through a robust network of Community Health Workers. The goal is to stabilize housing, improve health status, and reduce unnecessary hospital readmissions.

EHF's other subsidiary, the Family Impact Network, is focused on preventing and mitigating Adverse Childhood Experiences (ACEs) to improve

Where Empire Health Foundation is Seeking Adequate Measures:

- Access to Providers
- Number of Mental Health Providers
- Number Without Health Insurance
- Care Coordination/Management
- Avoidable Hospital Admissions
- Obesity
- Substance Abuse
- Number of Supportive Housing Units

Current Measures in Use:

- Number Without Health Insurance
- Minutes of Physical Activity
- Nutritional Content of School Meals
- Sodium Intake
- Population Density
- Asthma
- Avoidable Hospital Admissions
- Patient Activation Measure Scores
- Mean BMI Percentile
- Percent of Students Overweight or Obese
- Average Annual Wage
- Bachelor's Degree or Above
- K-12 Educational Attainment
- Number of Medical Residency Slots in Region
- Number of Children in Foster Care in Region

community health. This includes a partnership with Washington State Children's Administration to implement Performance Based Contracting in the child welfare system in eight counties, aiming for a 50 percent reduction in the number of children in the foster care system by 2018. The new system will provide more flexibility, support, and data to social workers and providers, while incentivizing positive outcomes for children.

Measure and Data Source Use

The EHF board sets goals each year and adapts its measures as priorities evolve, using broader population health data to identify target improvement areas and subpopulation or community data to evaluate programs and adopt specific initiatives. While the broader population health data are more generally available, EHF has found the need to assist with data collection for the community-based metrics and continues to grapple with challenges that include propriety barriers, personal privacy issues, lack of granularity, and small sample sizes.

Sharing the results of its measures helps the organization attract additional investment to EHF programs, advocate for policy change and expand its collaborative partnerships. For example, through the identification of childhood obesity data, EHF invested in 15 rural county school districts to implement "scratch cooking" with fresh ingredients. This best practice model has resulted in a reduced obesity rate in the schools where scratch cooking has been implemented.

Additionally, EHF is exploring measures that better capture the impact of social determinants of health and their relationship to clinical outcomes. In 2015, BHT became an Accountable Community of Health through a State Innovation Model (SIM) grant and adopted the SIM measure set addressing the triple aim. EHF determined these measures are highly clinically oriented and continues to seek more comprehensive measures that align with local initiatives to address well-being and community factors that contribute to overall health. This is an evolving and slow-paced process, as EHF identifies data sources, selects measures and determines which of its community-based initiatives are making an impact.

For EHF's Rural Aging Services initiative, which aims to improve quality of life for older adults living in rural communities, the organization chose to use data from Insignia Health's Patient Activation Measure (PAM)[4] survey to best capture the diversity of health characteristics and inform long-term health outcomes.

4 Insignia Health. Patient activation measure survey website. http://www.insigniahealth.com/products/pam-survey. Last accessed July 2016.

FIELD TESTING GROUP PROFILE (AS OF SUMMER 2016)

Geneva Tower Health Collaborative

Geneva Tower is an apartment complex in Cedar Rapids, Iowa, which houses low-income elderly and/or disabled adults. Mercy Medical Center and Abbe Center for Community Mental Health, both of which provide programs and services to many of the individuals living at the residence, collaborated with the Affordable Housing Network, Aging Services, Area Substance Abuse Council, and Linn County Public Health to provide additional support for the community and improve health and well-being. By providing services and support on site, the Collaborative reduces barriers to care, including a lack of transportation and financial resources.

Goals and Approach

Through analysis of population health data, the Collaborative identified Geneva Tower's zip code as showing disparities in access to care and above-average use of emergency department services. In addition, calls to the police department from Geneva Tower residents included a high proportion of medically related issues. The majority of Geneva Tower's residents are overweight or obese, based on documented BMI scores. Many are diabetic and many are smokers. In response, the Collaborative has focused on social determinants of health, obesity, diabetes, and tobacco cessation. Linn County received funding through a State Innovation Model (SIM) grant, which includes an overarching goal that will reduce barriers and better connect care to improve health outcomes of high-needs, low-resource residents. This grant will likely impact the Geneva Tower residents.

Health improvement activities have included events to help residents understand their Medicaid benefits, an unused prescription drop-off program in partnership with local police, and providing a six week chronic disease self-management program on-site. Following the assessment of initial health-related outreach efforts, the Collaborative discovered that residents had several competing priorities that impede the residents' interest in participating in health improvement activities and healthcare. For example, some struggled to meet basic needs like consistent access to food and sufficient clothing. Engaging residents has

Geneva Tower Measures

Patient Survey

- Percentage of members who had a preventive care visit in last 12 months
- Percentage of residents who can identify their primary care physician
- Percentage of residents with current tobacco use
- Percentage of residents who eat three or more servings of fruits or vegetables in a day.
- Percentage of residents who exercise for at least 20 minutes a day
- Percentage of residents interested in participating in health activities
- Percentage of residents who are satisfied with their health status
- Percentage of residents with diagnoses of diabetes
- Percentage of residents who have felt tense, anxious, or depressed in last 30 days
- Percentage of residents engaging in binge drinking during past 7 days
- Self-assessed availability of social supports

Clinical and Other Data

- Number of medically related police calls to Geneva Tower
- Number of nonadmission emergency department visits for individuals who are Mercy patients
- Percentage of residents with hypertension
- Percentage residents who are overweight or obese

continued to be a challenge, but the Collaborative is exploring different approaches to address this issue, including fostering trust with residents by appointing a resident representative to its board and launching a health and wellness resident committee. This committee is helping to prepare certain individuals to become champions within their own resident community and garner support among their peers and neighbors for health-related initiatives.

Measure and Data Source Use

The Collaborative is currently collecting baseline data through resident surveys. However, the Collaborative recognizes the challenges of this method: the surveys are self-administered, which makes information difficult to obtain due to issues recruiting participants, and data may carry inherent biases where residents are reluctant to report accurate information on certain topics.

Because the Collaborative is focusing on a subpopulation defined by a common residence, the value of geographically defined data sources is limited. The resident turnover rate at Geneva Tower also makes it difficult to compare rates over time to the baseline data, because the individuals involved fluctuate from one period to the next.

While Geneva Tower has partnered with Medicaid managed care plans to analyze integrated health home data, this only captures information for about half of the resident population. The clinical data provided by Mercy Medical Center also has limited relevance, since not all Geneva Tower residents are patients of that particular hospital system. Attempts to aggregate data across providers have not been successful due to issues with access to electronic health records.

The Coalition is hopeful, however, that regional data access and measure alignment will improve. Linn County's recent Community Health Assessment and Community Health Improvement Plan has prioritized data sharing and effective use of technology among the local public health system in order to identify and address emerging health trends.

FIELD TESTING GROUP PROFILE (AS OF SUMMER 2016)

Kanawha Coalition for Community Health Improvement

The Kanawha Coalition for Community Health Improvement (KCCHI) identifies and evaluates health risks to coordinate resources for measurable health improvements in Kanawha County, West Virginia. Founded in 1994, KCCHI represents the county's hospitals, behavioral health facility, federally qualified health center, United Way, health department, school system, faith-based partnership, business alliance, State Wellness Council and Bureau for Public Health. The Coalition's triennial Community Health Needs Assessment (CHNA) guides its work, and KCCHI workgroups facilitate solutions around priority issues. Its CHNA informs other organizations' community benefit plans and implementation strategies, strategic planning, and grant writing efforts, as well as the research efforts of medical and public health students.

Goals and Approach

West Virginia ranks among the lowest states on numerous health issues, but KCCHI is committed to promoting transparency of the population health status in order to motivate improvement efforts. The Coalition conducts its CNHA every three years and includes a survey of key leaders in the community, a telephone survey among randomly selected households in Kanawha County, community focus groups, and analysis of existing research, and data on county health statistics as compared to West Virginia and the country. In response, KCCHI prepares fact sheets on eight to ten top health issues and holds a community Health Issues Forum where three to four priorities are set for the next three years for the Coalition. KCCHI then forms workgroups to address those topics.

The top focus areas through 2017 are obesity and nutrition, substance abuse, and physical activity. KCCHI's workgroups on obesity, nutrition, and physical activity have developed an online "Healthy Choices at Work" resource guide for businesses with best practices around policy and environmental changes, conducted pilot programs targeting small businesses, and held stairwell

Data Sources Used by KCCHI

American Community Survey: U.S. Census Bureau

Behavioral Health Epidemiological County Profiles: West Virginia Department of Health and Human Resources

Behavioral Risk Factor Surveillance System: Centers for Disease Control and Prevention

CARDIAC Project: Coronary Artery Risk Detection in Appalachian Communities

County Health Rankings: Robert Wood Johnson Foundation

Current Population Survey: U.S. Census Bureau

Fatality Analysis Reporting System: National Highway Traffic Safety Administration

Food Environment Atlas: U.S. Department of Agriculture

Kids Count: Annie E. Casey Foundation

National Survey on Drug Use and Health: U.S. Department of Health and Human Services

School Nurse Needs Assessment: West Virginia Department of Education

State Cancer Profiles: Centers for Disease Control

West Virginia STD Surveillance: West Virginia Department of Health and Human Resources

West Virginia Vital Statistics: West Virginia Department of Health and Human Resources

Youth Risk Behavior Survey: Centers for Disease Control

usage challenges and walking promotional campaigns. KCCHI partners with the county substance abuse prevention partnership for its efforts to address substance abuse. Some joint strategies include the placement of additional unused and expired prescription medication collection boxes, informational parent and community meetings on heroin and prescription drug abuse, and implementation of school and community evidence-based programming.

KCCHI's Steering Committee has also identified new priorities around end-of-life issues, palliative care, and hospice care. Kanawha County has a higher-than-average percentage of individuals dying in local hospitals; KCCHI plans to address this issue by educating community members about proactively talking with doctors and other providers about end-of-life treatment options, hospice care, advance directives, and Physician's Orders for Life Sustaining Treatment (POLST) forms.

KCCHI is currently working to engage additional stakeholders in the development of a community health improvement plan. It anticipates that stakeholders will take responsibility for health improvement initiatives by contributing resources and expertise and taking ownership over certain elements of the strategic plan. The Coalition is exploring funding opportunities for this stakeholder activity.

Measure and Data Source Use

Measures are determined every three years based on available data. Since measure choice is tied to data availability, measures do not always reflect what the Coalition would consider most effective for its initiatives. Accessing up-to-date data has been a challenge for the Coalition, since many data sources lag and do not reflect pivotal policy changes. Also, the availability of local data sources is limited to county- or state-wide profiles rather than zip code or census track, hindering more accurate localization of initiatives and interventions. Measure results are published by the Coalition and its members, including hospitals, and used by stakeholders to inform economic development planning, fund allocations, and more.

FIELD TESTING GROUP PROFILE (AS OF SUMMER 2016)

Michigan Health Improvement Alliance

The Michigan Health Improvement Alliance, Inc. (MiHIA) is a nonprofit, multistakeholder organization serving a 14-county region with a population of nearly 800,000 in central Michigan. The Alliance aims to improve health through information sharing and collaboration, focusing on the facets of the Three Aims: population health, patient experience, and cost of care. Serving as a convener, assessor, and grant-seeker, MiHIA facilitates and supports projects and initiatives with a shared directive. As such, the organization has been recognized by the U.S. Department of Health and Human Services as a Chartered Value Exchange (CVE) and also awarded the John J. Mahoney Award for Community Health Value. Central to MiHIA's mission is the belief that health and healthcare improvement strategies can be found and designed at the regional level, accelerating local competitive advantages for our communities and promoting sustainability. MiHIA keeps its service region large enough to have statistical significance, yet small enough for the practical implementation and impact of initiatives.

Goals and Approach

MiHIA focuses on a single long-term goal: for all 14 of its counties to rank in the first two quartiles of the County Health Rankings and Roadmap, an annual snapshot of community health, supported by funding from the Robert Wood Johnson Foundation. To achieve this goal, the organization develops a strategic plan for key priorities and initiatives including its Population Health Strategy Team which focuses on sharing and implementing evidence-based programs, policies, and activities that will improve health factors for the region.

The current strategic plan prioritizes five areas to support key projects in the region, including the CDC recognized Diabetes Prevention Program and the national Choosing Wisely campaign promoting patient-physician conversations about unnecessary medical tests and procedures. The Population Health Team focuses on disseminating targeted health messages to community groups through a "call to action" speaker series, running a health excellence award program to recognize health improvement efforts in the region, and conducting a regional Community Health Needs Assessment (CHNA), among other top priorities. MiHIA focuses on prevention initiatives for chronic disease, preparing for a potential State Innovation Model test, and integrating the consumer voice into MiHIA's strategic planning by establishing a consumer council.

Measure and Data Source Use

MiHIA uses the County Health Rankings as its primary measurement tool and shares regional results through the MiHIA Health Dashboard, an

MiHIA Metrics of Success:

Population Health:

- All 14 MiHIA counties to be ranked in the top half of the state county health rankings

Patient Experience:

- For the region to be ranked in the first quartile by the Commonwealth Foundation
- To improve areas currently ranking in the third and fourth quartile (hospitalizations for heart failure and pneumonia for patients that received the recommended care, percent of adult diabetics that receive the recommended preventive care, number of avoidable emergency department visits among Medicare beneficiaries and the percent of adults that have a Body Mass Index [BMI] of >=30)

Cost of Care:

- Cost of Care inflation trend for the MiHIA region will not exceed the Consumer Price Index (CPI)

online reporting and monitoring tool designed to help partner organizations and the public track key health outcome measures by county. Each of the 14 counties in MiHIA's scope has unique composition attributes and health disparities, which pose a challenge for identifying regional priorities that affect all 14 counties. The organization aims to develop a standardized regional CHNA by streamlining data sources and formats for compatibility with each of the 14 counties within MiHIA. This will improve data comparison abilities, which has been a difficulty for the Alliance, as has identifying consistent data sources. MiHIA continues to explore the various surveys used in the region and opportunities to improve data sharing for local organizations.

FIELD TESTING GROUP PROFILE (AS OF SUMMER 2016)

Oberlin Community Services and The Institute for eHealth Equity

Oberlin Community Services (OCS) is a nonprofit community services organization that has been operating in Oberlin, Ohio, for 60 years, initially serving as a food bank and then expanding to a larger range of services to residents and groups who need help meeting basic needs within Oberlin and southern Lorain County. OCS is collaborating with The Institute for eHealth Equity (IeHE), which focuses on the use of mobile technology to support individual decisions that lead to better health. A critical component of this partnership involves customizing messages to build trust and engagement among community members and leaders from local institutions, as well as making effective use of other aspects of mobile communication technology.

Goals and Approach

Food security and nutrition has been a central focus for OCS since its inception. This continues to be a top priority, given that Ohio ranks among the worst states for food insecurity. OCS is also expanding its focus areas to include chronic disease prevention and management, with a focus on diabetes. This includes partnering with the YMCA to develop a diabetes prevention program focusing on healthy lifestyle choices. The organization is utilizing IeHE's Text4Wellness program, which is a two-way text messaging campaign reaching members of local faith communities, to share information on exercise, wellness, disease prevention and lifestyle-change. The program is tailored to the culture and needs of the local African American community, a target population in which one out of every three people is pre-diabetic. OCS aims to refine the questions in the platform to focus on social determinants of health and increase the value of information shared with various stakeholders, such as managed care plans and hospitals.

Measure and Data Source Use

OCS uses the Lorain County Community Health Needs Assessment and its own Healthy Community Survey to identify priorities and assess progress. These measures focus on social determinants of health and health-related behaviors, centering on the organization's goals to address nutrition and diabetes. Sharing measure results has helped OCS foster productive partnerships with IeHE, Mercy Allen Hospital, the Lorain County Health and Dentistry (a Federally Qualified Health Center), the College of Oberlin,

OCS Measures

- Diabetes HbA1c Test (NQF #0057)
- Alcoholic Beverage Expenditures
- Cigarette Expenditures
- Current Smokers (NQF #2020)
- Fruit and Vegetable Expenditures
- Heavy alcohol consumption
- Inadequate Fruit/Vegetable Consumption
- No Leisure-Time Physical Activity (NQF #1348)
- Smokers Who Quit / Attempted to Quit (NQF #0028)
- Change in total population
- Grocery store access
- High School graduation
- Recreation and fitness facility access
- Soda Expenditures

and the Food Bank Network, among others, and galvanize efforts to address the prevalence of diabetes in Oberlin.

OCS is tracking Ohio's national rank in such areas as the ability to feed families and the elderly and the infant mortality rate. By doing so, OCS can select measures that align their foci of providing nutritious food and impacting chronic illnesses with state health improvement initiatives. To help assess OCS' impact, data are collected with each client interaction. Monthly statistics are gathered and submitted to funders. OCS hopes that a shared focus on measurement can continue motivating stakeholders and assist in obtaining grants and other funding opportunities for priority improvement areas.

FIELD TESTING GROUP PROFILE (AS OF SUMMER 2016)

Trenton Health Team, Inc.

The Trenton Health Team, Inc. (THT) is a community-based health improvement collaborative serving Trenton, New Jersey. The collaborative comprises two hospitals and more than 50 community and social service agencies and recently became a Medicaid Accountable Care Organization (ACO). THT is a data-driven organization and launched its own Health Information Exchange (HIE) in 2014. The organization's priorities are based on a Community Health Needs Assessment (CHNA) conducted in 2013, which identified priority areas critical to health improvement.

The THT collaborative efforts center on behavioral health, safety and crime, and chronic disease, with a focus on cancer, diabetes, and hypertension/cardiovascular disease. THT has identified health literacy and transportation as significant barriers to care and contributing factors to chronic disease. By matching these priorities with the strengths and experience of partners such as the Children's Home Society, the American Diabetes Association, the New Jersey Partnership for Healthy Kids-Healthy Corner Store Initiative, and the Henry J. Austin Health Center (a Federally-Qualified Health Center), THT has been able to maximize existing assets and address collaborative health improvement goals.

Goals and Approach

THT has five strategic priorities: expanding access to primary care, improving care coordination and care management, operating its HIE to provide real-time access to shared patient data, engaging the community to increase knowledge and overcome obstacles to care, and functioning as one of three certified Medicaid Accountable Care Organizations (ACO) in the New Jersey's Demonstration Project. THT's aim is to reform healthcare in Trenton by creating a holistic model, using data to pinpoint gaps and barriers to service and establishing collaboration between health and community groups.

Part of THT's strategy is establishing task forces to address particular goals. THT's community-wide Clinical Care Coordination Team brings together medical and behavioral health providers from across the city to review particular cases, issues, and strategies for achieving improved patient experience, better health outcomes, and lower cost. The Care Management Team facilitates care coordination, and the Community Advisory Board led the 2013 CHNA, which involved conducting 30 forums and 300 one-on-one interviews.

Measure and Data Source Use

THT has adopted measure sets for each of its programs, based on grantor requirements and voluntary measures chosen by the THT Community

THT ACO Measures

- Tobacco screening and intervention
- Emergency department utilization due to diabetes
- NQF #0018: Percentage of patients 18-85 with diagnosis of hypertension and whose blood pressure was adequately controlled (<140/90) during the measurement year
- NQF #0059: Percentage of members 18-75 with diabetes (type 1 and type 2) whose most recent HbA1c level during the measurement year was greater than 9.0 percent (poor control) or was missing a result, or if an HbA1c test was not done during the measurement year
- Primary care physician visit within 12 months
- Primary care physician visit within 7 days of emergency department/inpatient hospital encounter
- 30-day readmission rate

Advisory Board and internal teams. THT uses the CHNA and real-time data to identify priority areas, possible useful analytics, and appropriate measures for the organization and its goals.

Following its ACO designation in 2015, THT assumed responsibility for quality measures covering all Medicaid beneficiaries in the region, totaling approximately 48,000 people. The new measurement obligation has redoubled efforts for improved outcomes and motivated stakeholder engagement through clinical partnership and participation on the THT Community Advisory Board.

THT has already seen individual improvements in outcomes from specific programs, including pediatric weight loss, fewer emergency department visits, and reduced rates of hypertension.

Tracking more measures and using more data has proved challenging for the interpretation and analysis of results. By incorporating clinical data with historic claims data through its regional HIE, THT is able to track more sensitive metrics and make adjustments in real time. The resulting abundance of metrics has prompted the re-examination of processes to ensure that measurement and metrics focus on one or two priority areas. THT is also sensitive about conveying the context of measure results, especially where individual measures tell an incomplete story or data sets appear inconsistent, and works with physician leaders and others who help with analysis of the clinical and population health data.

FIELD TESTING GROUP PROFILE (AS OF SUMMER 2016)

Community Service Council

The Community Service Council (CSC) is based in Tulsa, Oklahoma, and provides leadership for programs and initiatives that improve the lives of thousands of Oklahomans each day. Since 1941, CSC has been bringing people together to research, plan, coordinate and mobilize action, and assess progress towards addressing the most critical social service, health, education, and civic challenges. There are many programs, partnerships, and initiatives under the CSC umbrella. All are part of the Council's overall strategy to focus on prevention and invest in people across the lifespan.

Goals and Approach

The CSC was originally formed to collaborate on child care, homelessness, prenatal care, mental health, substance abuse, child abuse, HIV/AIDS, early childhood development, transportation for persons with disabilities, long-term care, emergency shelter, and financial aid. As a trusted convener, CSC operates as a think tank for Tulsa and the surrounding region, focused on prevention to achieve "critical health, education, employment, financial, and other outcomes essential to success and quality of life."[5] This includes programs like the Family Health Coalition, established in 1987 to address access to prenatal care and poor birth outcomes.

Measure and Data Source Use

Although the Family Health Coalition has been data-driven since its inception, participating organizations collected data individually at the programmatic level, rather than in a standardized way. During participation as an FTG, the Coalition encouraged its members to begin thinking on a population health level and discovered that many of the participating organizations were unclear on the meaning and implications of the word "measurement." NQF's guide, *The ABCs of Measurement*, was used as the basis for a common language and understanding of measurement, resulting in improved confidence when using the term and a foundation for strategic discussion around shared measurement and joint reporting.

Through the Family Health Coalition, CSC is aligning 32 programs and 26 organizations on 18 benchmark measures focusing on uninsured, underinsured and Medicaid (see the list of measures below). The initiative spans four care coordination programs that cover nearly 15 percent of Tulsa County births. Eleven of the Coalition's organizations began joint reporting results of the 18 measures and implemented targeted care coordination efforts to reduce cost and improve outcomes. The Coalition uses this aggregated data alongside data from the Maternal and Child Health Bureau (MCHB) for shared measurement points. In the future, they will consider adding measurement priorities around breastfeeding, pediatric dental care, prenatal dental care, transportation referrals, and health literacy.

Data sharing has been robust due to the use of Health Information Exchange; however, it is not without challenges. Some providers hesitate to share data, and data sharing can be disrupted when community service providers are not 'covered entities' under the Health Insurance Portability and Accountability Act (HIPAA). CSC is exploring the option of becoming a healthcare data clearinghouse to assist in information transmission for such noncovered entities. This would permit for an easier exchange of information, specifically between traditional healthcare providers, behavioral health providers, and other community services providers.

5 Community Service Council. History and accomplishments website. http://csctulsa.org/history-of-csc/. Last accessed July 2016.

CSC's Family Health Coalition Benchmark Measures

- Degree to which Maternal and Child Health Bureau (MCHB)-funded programs ensure family/youth/consumer participation in program and policy activities
- Degree to which MCHB-funded programs have incorporated cultural and linguistic competence elements into their policies, guidelines, contracts, and training.
- Percentage of all children 0-18 participating in MCHB-funded programs who receive coordinated, ongoing, comprehensive care within a medical home
- Percentage of women participating in MCHB-funded programs who have an ongoing source of primary and preventive care services for women
- Percentage of women participating in MCHB-funded programs who have a completed referral among those that receive a referral
- Degree to which MCHB-funded programs facilitate health providers' screening of women participants for risk factors
- Degree to which MCHB-supported initiatives contribute to the implementation of the 10 MCH Essential Services and Core Public Health Program Functions of assessment, policy, development, and assurance
- Degree to which MCHB grantees are planning and implementing strategies to sustain their programs once initial MCHB funding ends
- Degree to which States and communities have implemented comprehensive systems for women's health services
- Percentage of pregnant participants in MCHB funded programs receiving prenatal care beginning in the first trimester
- Percentage of completed referrals among women in MCHB-funded programs
- Percentage of women participating in MCHB-funded programs who smoke in the last three months of pregnancy
- Percent of very low birth weight infants among all live births to program participants
- Percent of live singleton births weighing less than 2,500 grams among all singleton births to program participants
- Infant mortality rate per 1,000 births
- Neonatal mortality rate per 1,000 live births
- Postneonatal mortality rate per 1,000 live births
- Perinatal mortality rate per 1,000 live births plus fetal deaths

FIELD TESTING GROUP PROFILE (AS OF SUMMER 2016)

The University of Chicago Medicine Population Health Management Transformation

The University of Chicago Medicine (UCM) is spurring collaboration with various community partners to improve population health in the city, particularly for residents on the South Side of Chicago. One of the mechanisms being explored as part of this three-year strategy is the use of data and measurement to track the care for individuals across different organizations. The aim is to provide a clearer picture of overall health and healthcare services in the region and provide the strategic basis for an integrated care delivery network.

Goals and Approach

As a healthcare system with a prominent role in the community, UCM leverages its unique position as a convener to prioritize health needs and organize resources around initiatives that improve health outcomes and reduce hospital readmissions. UCM conducts a Community Health Needs Assessment (CHNA) every three years as a regulatory requirement of its 501(c)(3) status, and uses the data to identify priorities as well as program-level goals, strategies, and metrics for each focus area. The UCM Community Benefit program provides grant opportunities to community partners that target its CHNA focus areas.

By sharing measures with community stakeholder and partners, UCM is able to prioritize initiatives that meet the needs of the community. For example, the 2013 CHNA revealed that the South Side of Chicago has one of the highest burdens of pediatric asthma in the nation. The corresponding data were shared with UCM's community partners, and UCM provided a grant to a local community hospital to fund a specially trained patient advocate who could provide education to pediatric asthma patients. As a result, the number of hospital emergency room visits for asthma has declined. UCM is working with pediatric healthcare providers to establish an asthma center that would serve as a hub for research, community education, and a standard clinical care delivery model. UCM executes Community Benefit through care delivery initiatives, grant making, medical education, community based education, outreach, and partnerships. A report is produced annually to demonstrate the impact of UCM's and its partner's efforts to improve care for patients in the target region, which comprises approximately 640,000 residents.

A Sample of UCM's Post-Acute Care Measures:

- Length of stay at post-acute care facility
- Discharge disposition from facility
- Readmissions to any hospital
- Readmissions to UCM
- Principal Diagnosis
- Functional independence measure at facility discharge
- Functional independence measure efficiency
- Case mix index
- Catheter-associated urinary tract infection cases per 1,000 patient days
- Pneumonia – New (developed at facility) & Existing (present at admission)
- Decubitus ulcer development - New (developed at facility) and Existing (present at admission)
- MRSA – New (developed at facility) and Existing (present at admission)
- *Clostridium difficile* (cases per 1,000 patient days) – New (developed at facility) and Existing (present at admission)
- Falls (cases per 1,000 patient days) – Injured falls (cases per 1,000 patient days)
- Patient satisfaction - Likelihood to recommend/refer score, other

Measure and Data Source Use

UCM tracks four main measure sets: CHNA measures to align with local needs and Healthy 2020 goals; Post-Acute Care (PAC) measures to track patients through the continuum of care; population health management measures as part of UCM's Medical Home and Specialty Care Connection Program (MHSCCP); and HEDIS measures to fulfill contract requirements with health insurance plans. Each measure set relies on varied data sources, including those from external organizations.

The varied data sources have posed a challenge for UCM due to inconsistent data collection methods. A tactic of UCM's Community Benefit strategy is to connect community partners with UCM researchers and faculty to strengthen data collection methods and tools. UCM is also working with partner organizations to mutually develop a data collection methodology for more effective analysis and measurement of health impacts.

Care coordination is a major component of UCM's strategy to improve health and healthcare through its collaborative programs. Partner organizations like the South Side Healthcare Collaborative (SSHC)—a network of over 30 Federally Qualified Health Centers (FQHCs), free clinics, and community hospitals—are vital in helping to control hospital readmissions, patient satisfaction, and healthcare costs. UCM uses post-acute care measures to monitor relationship effectiveness, patient throughput, and patient care quality, while MHSCCP measures are used to track patient follow-up appointments. The mutual responsibility between partners to coordinate care requires open and frequent communication and data sharing between organizations, which UCM facilitates through regular review meetings to monitor measures and report challenges.

APPENDIX G:
Current and Former Population Health Framework Committee Roster

Co-Chairs

Kaye Bender, PhD, RN, FAAN
Public Health Accreditation Board
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Kevin L. Bowman, MD, MBA, MPH
WellPoint, Inc.
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Colorado Cross-Agency Collaborative
Denver, CO
https://www.colorado.gov/hcpf

Community Service Council of Tulsa
Tulsa, OK
http://www.csctulsa.org/

Designing a Strong and Healthy NY (DASH)
New York, NY
http://www.dashny.org/

Empire Health Foundation
Spokane, WA
http://www.empirehealthfoundation.org/

Kanawha Coalition for Community Health Improvement
Charleston, WV
http://www.healthykanawha.org/

Geneva Tower Health Collaborative
Cedar Rapids, IA
http://www.mercycare.org/news/2015/mercy-and-abbe-center-chosen-to-guide-national-health-improvemen/

Michigan Health Improvement Alliance
Saginaw, MI
http://www.mihia.org/

Oberlin Community Services and The Institute for eHealth Equity
Oberlin, OH
http://www.oberlincommunityservices.org/

Trenton Health Team, Inc.
Trenton, NJ
http://www.trentonhealthteam.org/tht/index.php

The University of Chicago Medicine Population Health Management Transformation
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Elisa Munthali, MPH
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