



Using Measurement to Drive Cross-Sector Alignment towards Equitable Health Outcomes: An Environmental Scan Report

JANUARY 2020

Rikki Mangrum | Maliha Ali | Tamika Cowans | Tania Dutta | Ellen Schultz

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Executive Summary

Fragmentation across the different systems that support health and well-being, such as medical care, public health, housing, education, transportation, and social and human services, constitutes an obstacle to achieving health equity. Lack of cross-sector alignment and coordination contributes to unmet needs and poor health outcomes for individuals and communities. Achieving health equity requires creating aligned systems that work together to meet the goals and needs of the people they serve. Shared measurement can help galvanize and sustain the infrastructure, governance, and incentive changes needed for lasting cross-sector alignment that advances health equity. But many questions remain about what characteristics of measurement support alignment and how measurement across sectors can be implemented in ways that are meaningful to and will benefit communities in equitable ways.

This environmental scan report describes the landscape of existing cross-sector alignment efforts and how they use measurement in order to shed light on the three research questions we aim to address:

1. How do existing efforts use measurement as a lever to create alignment among sectors in addressing health equity?
2. What features of measurement drive alignment across sectors for community well-being?
3. What cross-sector metrics are most commonly used as “north stars” or targets to measure health and community well-being?

Methods

We identified examples of cross-sector alignment initiatives that were galvanized or sustained by measurement. We also conducted interviews with 7 individuals with expertise in collective impact, measurement, data sharing, and working across sectors to improve community well-being and/or advance racial or health equity.

Findings

The findings are organized by themes based on the review and analysis of examples, literature, and interviews collected for this scan.

1. We found **variation in the types of cross-sector initiatives** that use measurement: some were operated by a single existing organization while others resulted in the establishment of joint ventures amongst existing organizations from different sectors. We also found

examples of government-led initiatives, whole community initiatives, and grassroots or coalition-building efforts across multiple organizations.

2. The **most common aims of the initiatives** were to improve the health and well-being of people within a specific geographic area or of specific groups of people defined by a personal attribute. Other aims include fulfilling a federal or state statutory requirement, improving cross sector planning and execution of services, influencing policy or empowering communities to address equity and improve health.
3. Most initiatives involved **many sectors rather than a few**. The number and type of sectors involved depended on the focus of the initiative, where fewer sectors were involved when the scope of the initiative was narrow. The most common sectors involved across initiatives were health, housing, education, economic development, employers, faith groups, and government.
4. We found **variation in the ways that measures were used** by cross-sector initiatives included in the scan. Measures were used to galvanize alignment of sectors around a shared purpose, monitor specific alignment goals and objectives, and sustain participation in an initiative by demonstrating progress on objectives. Measures were used by initiatives to build community action, advocate for policy changes, or address health equity. Some initiatives combined data sources and measures to better describe and understand a community by measuring and gathering data equitably from all its members. Challenges to shared measurement discussed by our interviewees include lack of interoperability of data systems and agreements between organizations, narrow standards for measurement defined by one sector making it difficult to develop new measures that are meaningful across sectors, and lack of measures related to equity.
5. Initiatives **used several types of measures**, including indicators specific to individual sectors and indicators that were cross-sector in nature. Initiatives also varied in the use of large versus small sets of measures or use of individual/community measures versus publicly available measures. Some initiatives led by the health care sector used a community health needs assessment that covers an array of sectors.
6. Only a few initiatives described the **process of selecting measures**, and those that did, provided generic information, such as mentioning that a committee reviewed and selected measures.
7. We found **variation in how initiatives reached a shared purpose**. Some developed over time whereas others were imposed by leadership. Most initiatives tied their shared purpose to the specific aims or conceptual frameworks that directed their work. Interviewees noted that shared purpose can galvanize groups to align and prompt shared measurement between sectors.

8. Several initiatives **shared data and metrics**, such as process or outcome measures or data needed to carry out operations. Interviewees suggested that shared responsibility for the measures was a prerequisite for alignment. They observed that measures must create an impact on organizations in order for shared measurement to be meaningful for participating sectors. Data sharing was common in efforts led by health care and human/social services sectors, but rare in efforts led by community-based organizations.
9. Most initiatives provided **little or no information about shared governance**. Those that reflected a shared governance system included initiatives at the state government level and initiatives governed by a board comprised of shared representation from partners.
10. Although **information on shared financing was lacking** from most initiatives, the literature suggests that shared financial incentives are a significant factor for alignment across sectors. Shared financing commonly results from grant support, but other financing vehicles exist to support multi-sector initiatives such as pay-for-success contracts braided and blended state-supported funding, community development financial institutions, the New Markets Tax Credits Program, and wellness trust funds.

Implications

Existing initiatives use measurement as a lever to create alignment among sectors to address health equity.

1. Measurement can motivate sectors to collaborate. We found that measurement helped determine shared goals, track progress, monitor outcomes, and fulfill goals of an initiative.
2. Cross-sector initiatives use measurement to identify and describe a health equity challenge or to reveal that an inequity exists. Measurement can act as a lever for alignment by demonstrating that apparently disparate problems are closely related and helping delineate the common ground between sectors which may otherwise operate separately.
3. Measurement can also motivate financial and policy commitments to address health equity.

Measurement can sustain alignment in several ways once it has begun.

1. Measures can be used to assess impact on outcomes or processes that illuminate whether alignment is accomplishing its aims.
2. Measurement can help cross-sector efforts operate successfully by helping organizations establish manageable health equity goals or create common infrastructure, common governance, or financial commitments that may help sustain or expand alignment.
3. Measures can be applied in different ways to serve different needs. For instance, a single “north star” measure may be flexibly applied by multiple sectors aligned around a shared

goal, or a suite of measures can be used to help sectors understand their part in addressing a shared problem.

The scan did not find specific metrics that were commonly used as north stars. However, the north star measures we found shared specific characteristics. When a single measure was used, the resulting metric itself reflected outcomes of cross-sector experience. When composite measures or sets of measures were used, these metrics integrated outcomes and processes across relevant sectors.

1. Initiatives used many different measures which reflect wide variation in cross-sector aims, goals, and objectives as well as operations.
2. Some initiatives provide access to hundreds of measures making it difficult to identify the ones that can function as north stars across initiatives.

Initiatives often rely on public data and measure resources in combination with local data collected for operational purposes. Many initiatives repackage public data, such as creating subsets or maps of data collected by federal or state agencies. Yet, it is unclear why organizations find this practice valuable.

1. Initiatives often highlight measures, and the role of measurement in alignment, when participation was compulsory or where there was financial accountability, especially to taxpayers or consumers. For example, state initiatives provided detailed annual reports that include a variety of metrics, and payer-led initiatives reported on improvements in health outcomes or reductions in healthcare costs. This suggests that accountability leads to more public transparency about what is being measured.
2. The scope of the initiative (i.e., how big a problem is it trying to solve) and the mechanism selected for implementing alignment (i.e., imposed, voluntary, or community-driven) appear to be the most important factors for galvanizing and sustaining alignment, while measurement plays a supporting role.

Limitations

Rather than exhaustively cataloging all examples of cross-sector use of measurement, we collected examples that were each in some way unique from others. We also limited our scan to documentation readily available online, principally on the initiative's own website. We noted that these websites sometimes changed substantially in the short period of time used to conduct the scan. As a result, **there are limitations to the findings presented above:** (i) we cannot generalize the frequency or prevalence of various themes among cross-sector initiatives, (ii) we cannot say that expected or desired concepts and themes are missing, only that they are not available in the information sources we used, and (iii) this scan might have

resulted in different, additional themes if developed at a different time, or over a longer period of time.

Introduction

To achieve lasting and meaningful improvements in individual and population health, policymakers and health care providers now recognize that efforts across diverse sectors including health care, public health, and social and human services must be aligned. Alignment acknowledges that health is not solely the result of good genes and access to high-quality care, and that disparities in health outcomes are driven by disparities in the human condition that result from policies and practices that inequitably benefit some groups and burden others. These differences in lived circumstances, which are sometimes called social determinants or social drivers of health, have been recognized for decades, but fragmentation between sectors that create or respond to these factors has hindered understanding of what works to improve health equity in any community.

Overcoming fragmentation requires creating aligned systems that work closely and effectively together. Alignment happens through shared purpose, collaborative infrastructure, sustainable financing, and accountable governance. Also, measurement shared across sectors or *shared measurement* (i.e., measurable targets for success that are actionable, accountable to communities, and reflect shared priorities across sectors) can help galvanize, guide, and sustain lasting cross-sector alignment to meet the goals and needs of communities, especially among populations most at risk of inequities.

But many questions remain about what characteristics of shared measurement are most effective in advancing alignment and how best to implement such shared measurement in ways that are meaningful to and benefit all communities. These questions include exploring ways of defining, selecting, applying, and tracking measurement within aligned systems to produce more equitable outcomes, including by making visible the effects of institutional policies and practices that historically have created inequitable outcomes for excluded or marginalized groups. We explored the following questions to develop an understanding of how measurement may drive and support cross-sector alignment.

1. How do existing efforts use measurement as a lever to create alignment among sectors in addressing health equity?
2. What features of measurement drive alignment across sectors for community well-being?
3. What cross-sector metrics are most commonly use as “north stars” or targets to measure health and community well-being?

To anchor the work, we conducted an environmental scan to identify examples of cross-sector alignment initiatives that appear to have been galvanized or sustained by measurement. This

idea of galvanizing and sustaining could be interpreted in a number of ways. For example, it could include measurement of alignment itself, perhaps by assessing whether different sectors are truly working toward the same ends. Or, it could include measurement that is intended to highlight deficiencies in systems that result in disparities, thus serving as a form of performance measurement for sectors as a whole. To best support the work, we looked for a variety of examples that reflected the different ways in which galvanizing and sustaining might occur with the hope that comparisons among them might help us understand how measurement fits into cross-sector efforts aimed at addressing health equity. Rather than attempting to exhaustively catalog all examples of each form of alignment, we sought to collect examples that were each in some way unique from others. For example, we include one example of an Accountable Care Community to represent the type. Similarly, we included examples of cross-sector alignment driven by various government levels (i.e., state, county, city).

Methods

We searched for examples of cross-sector alignment galvanized or sustained by measurement, reviewed selected literature on cross-sector alignment and measurement, and conducted interviews with seven individuals with expertise in collective impact, measurement, data sharing, and working across sectors to improve community well-being and/or advance racial or health equity.

To guide the scan, we used the cross-sector alignment theory of change developed by the Robert Wood Johnson Foundation and the Georgia Health Policy Center (Georgia Health Policy Center, n.d.). This theory of change defines four core enablers of cross-sector alignment: shared purpose, shared data, shared financing, and shared governance (Georgia Health Policy Center, n.d.). We used these elements loosely to define alignment, examining the ways in which example initiatives reflected these features and how measurement might play a role in shaping them. We gathered a representative sample of initiatives that met our criteria and then analyzed them for similarities or differences.

Complete methods details are found in Attachment A.

Findings

In this section, we summarize findings, such as themes for initiative aims or the way measures are used, derived from a review of examples of cross-sector alignment, peer-reviewed and gray literature, and key informant interviews. For each theme, we provide specific details from individual examples, articles, or interviews to illustrate the theme. Finally, we offer a limited discussion section highlighting cross-cutting themes that emerge from the body of examples.

Because the primary focus of the review was examples of cross-sector alignment initiatives, we derived thematic findings principally from that analysis and supplemented those findings with additional insights gleaned from the literature or interviews. Except where noted, all themes illustrated only by example initiatives were also borne out by literature and interview findings but with no additional insights.

Overview of the Characteristics of the Examples, Literature, and Resources

This section provides an overview of the data included in each of the scan’s four categories of information.

Examples. We identified 85 candidate examples for review in this cycle of the scan, of which 43 met the inclusion criteria (see Attachment B). All included examples are ongoing, active initiatives, although some are time-limited (e.g., planned for 5 to 10 years with an uncertain future after that). Exhibit 1 provides information about a few characteristics that may be helpful to understanding the variation in the group of examples included.

Exhibit 1. Characteristics of Examples Included in the Review (N = 43)

Characteristic	Category	Category Definition	Number (Percent) of Examples
When the initiative was established	More than 10 years ago	*	10 (23)
	Less than 10 years ago	*	13 (30)
	Not clear	*	20 (47)
Complexity	Simple	Single focus or limited number of sectors	10 (23)
	Moderate	Multiple goals, moderate number of sectors	13 (30)
	Complex	Many goals, many sectors	18 (42)
	Not clear	*	2 (5)
Geographic Scope	Regional	Operates within a city, county, or region	24 (56)
	State	Operates at the state level	9 (21)
	National	Operates nationwide	10 (23)

Literature. Of 97 full-text items retrieved, we included 79 items in the initial analysis. Exhibit 2 provides an overview of the types of full-text resources included in the review.

We identified seven reports from recent research on cross-sector partnerships that used environmental scans, interviews, or surveys to understand key features, functions, and challenges of cross-sector partnerships (Amarasingham et al., 2018; Association of State and Territorial Health Officials, n.d.; Center for Sharing Public Health Services, 2019; Health Enhancement Research Organization, 2016; Erickson et al., 2017; Raday, Krodel, & Chan, 2018; Scally, Waxman, Gourevitch, & Adeeyo, 2017). These seven documents provide excellent overviews of broader conceptual considerations, functional features of alignment and collaboration, and the facilitators and barriers to cross-sector endeavors, and we have not sought to duplicate their findings in this report. In this report, we have included information from the literature when it addresses gaps in our understanding of findings from the examples. For example, our review of example cross-sector initiatives yielded minimal findings about measure selection, so we have highlighted findings available in the literature.

Exhibit 2. Types of Literature Included in the Review

Type of Literature	Number included
Journal article	27
Issue brief or white paper	10
Report	22
White paper	5
Gray literature*	20

*Gray literature included items such as conference presentations, blogs, news articles, and webpages

Resources. During our scan, we cataloged an initial set of 47 resources that relate to cross-sector alignment (see Attachment C). We identified these resources at random from other data sources such as article citations and catalogued them according to the type of products or support services they included. Exhibit 3 provides an overview of the number of resources providing different types of core products or support services. Because individual resources could have up to four keywords applied, the number of resources for each type adds up to more than 47. We know that different organizations may use words like “toolkit” or “guide” to mean the same thing, thus we limited the number of resources that have both keywords to those that provided specific tools such as calculators as well as broader toolkits or guides.

Exhibit 3. Type and Number of Resources Included in the Catalog

Type	Definition	Number of Resources
Tools	Tools include resource that provide tools or toolkits, such as logic models, templates, sample policies, or calculators.	28
Guides	Guides include both single-topic guides, such as for specific measures, and comprehensive guidebooks for establishing cross-sector alignment.	15
Data	Data include resources that provide datasets.	11
Measures	Measures include resources that provide measures that users apply to their own data and metrics collected from public or private sources.	20
Maps	Maps include resources that provide mapping tools and metrics.	7
Organizing programs	Organizing programs include resources that provide support, such as consulting or facilitation, to groups interested in organizing a cross-sector effort.	15
Readiness assessment	Readiness assessment includes resources that provide information about or services to support readiness assessment by groups interested in cross-sector work.	4
Capacity building	Capacity building includes resources that provide information about or services to support capacity building by groups interested in cross-sector work.	6
Consulting	Consulting includes resources that offer various consulting services, such as financial or technical.	4
Funding	Funding includes resources that offer funding for cross-sector alignment efforts.	2
Frameworks	Frameworks include resources that offer frameworks or conceptual models for cross-sector alignment.	5
Research	Research includes resources that offer research services.	3

Thematic Findings

This section provides an overview of themes identified within each topic area. For each theme, we purposefully selected a few examples to illustrate the variation within that theme. However, we do *not* list all possible examples that reflect the theme, and the selected examples may not illustrate all possible nuances for each theme. Finally, Attachment D provides a convenient table listing all topics and themes.

Themes for Types of Initiatives

We examined examples to understand who was involved in starting and sustaining these initiatives (i.e., what organizations were involved, how initiatives got started). The types of cross-sector initiatives we identified are not mutually exclusive. Thus, type should be regarded as a characteristic or attribute, rather than a classification for cross-sector efforts. For example, initiatives sometimes began as one type and changed over time: a program could be translated into a whole community approach; an organization's program might foster a later grassroots, coalition-style initiative.

Operated by an Existing Organization

We found numerous examples of initiatives started by and based in an existing organization. Initiatives could improve, change, or extend work the organization already did or could be an example of an organization taking on new work. Organizations often described these initiatives as "programs" (or similar language). Within the confines of such a program, the organization worked to foster and sustain cross-sector alignment directed at addressing the initiative's goals. The organization typically selected the goals and frameworks for alignment, albeit sometimes with input from sectors or communities themselves. The level of organizational control over the initiative varied considerably, ranging from offering partners overarching guidance and funding with minimal oversight to hands-on capacity building; resource provision; and designing, implementing, and evaluating initiatives.

1. **Cincinnati Children's Hospital** has a Community Health Needs Assessment and Pediatric Health Needs Implementation Strategy to channel community benefit funds to conduct activities based on a collaborative stakeholder assessment of the community's needs. The hospital fosters collaboration with clinics, school districts, and community organizations to implement programs and services, provide technical assistance, and build capacity to address eight priorities for children's health and well-being.
2. The **Colorado Trust** operates the Community Partnerships initiative to support whole communities in building their own power to achieve an equitable, healthy society. The Trust established requirements for participation and provides communities with resources that include a framework for action and a process map for five phases of development: connecting, early development, development, planning, and implementation.
3. **Family Independence Initiative** operates a program to help low-income families move themselves out of poverty by bridging resource gaps and removing systemic barriers. Partner families set goals and track progress toward financial self-sufficiency using the initiative's information, technology, social capital, and resources through the UpTogether Fund. They are also compensated for staying engaged.

4. **The Stand Together Foundation** operates a program to partner with social entrepreneurs and organizations to succeed in efforts to reduce poverty and social inequities. The foundation's program sets expectations and provides financial, learning, and operational resources.

Collaboration Among Organizations

Many example initiatives were the result of purposeful collaboration among existing organizations from different sectors, typically entailing the establishment of a joint venture or other independent organization that served as the collaborating mechanism.

1. **The Los Angeles County Homeless Initiative** is a collaboration of government and community partners addressing homelessness in LA county. Initiative partners established relationships across health, criminal justice, and social services and use data to support implementation of interlocking strategies across six priority areas. The regional collaboration establishes policies and supplies funding for housing and integrates services for individuals who are homeless.
2. **The Atlanta Beltline Partnership Project** is a long-standing collaboration of multiple government and private organizations and communities partnering to redevelop the central Atlanta area over the next decade. Project planning and development efforts aim to sustainably address all social and economic determinants of well-being for an equitable city.

Grassroots or Coalition-Style Initiatives

Initiatives sometimes appeared to develop from a grassroots effort within a community or a coalition-building effort across multiple organizations.

1. The **Greensboro Housing Coalition** began 30 years ago as a grassroots group of community members concerned with affordable, safe housing in the North Carolina city (Monk, 2019). Now a nonprofit, the Coalition collaborates with the county Department of Health, health care providers, and community members, to prevent homelessness and ensure access to safe, affordable housing. The Coalition engages community members in programs that offer financial education, counselling, and resources to address insecure housing and poor health.
2. **Stewards for Affordable Housing for the Future (SAHF)** is a collaborative of 13 multi-state, nonprofit, affordable housing providers committed to stable and affordable housing for building equity and wellness for residents with limited resources. SAHF members collectively own more than 140,000 residential units/homes. SAHF members partner with community-based organizations in health care and housing through the Outcomes Initiative to provide services and supports for fostering improved health and finances among residents.

Government-Led Initiatives

We found examples of initiatives that were started and led by government organizations, including state, county, and municipal-elected bodies or agencies.

1. **Live Well San Diego** is a vision of “Building Better Health, Living Safely and Thriving” formed in 2010 by the San Diego county government to improve wellness for 3.3 million residents through aligned efforts. County leadership collaborates with individuals and organizations from every sector as “recognized partners” who contribute resources and services in five distinct areas of well-being. The county tracks the impact of collective action and shares data back to the community.
2. **Let’s Get Healthy California** is California’s vision to be the healthiest state in the nation. A taskforce of health care leaders from government and private sectors provides stewardship of the initiative’s six goals to focus on health and health equity. The initiative provides local governments and organizations with tools, resources, and statewide data on key indicators of progress to support collective action.

Whole Community Initiatives

Some initiatives involved entire communities, including all sectors and members of the community. These examples contrast with those that address specific community problems or the needs of specific groups of people.

1. **San Antonio’s** city council and residents in 2010 identified a vision of an equitable community and determined a long-term sustainable strategy to address inequality and respond to community needs. The city adopted a Culture of Health approach and works with all sectors and residents to improve health and economic outcomes through collective action. The city’s SA2020 Initiative tracks progress in 11 categories that affect the quality of life of residents to inform the public and align the city’s efforts toward shared goals.
2. **The Blue Zones Project** works with communities and city planners to advance the health and well-being of residents through transforming the conditions in which they live, work, learn, and play. Participating communities adopt the project’s community-wide approach to change and champion well-being in schools, worksites, businesses, and neighborhoods through activities and policies that make it easier for residents to experience productive and healthier lifestyles.

Funded Experiments

A few examples of initiatives were conceived of as experiments and funded by organizations or individual philanthropists. These include some initiatives already described, such as the Blue Zones Project, and the following:

1. **Wellville**, a 10-year project in five diverse communities, tests an innovative way of making shared and longer-term investments in community systems and individual residents to achieve equitable well-being with long-lasting benefits. Wellville communities receive funding and support for implementation from Wellville’s national advisors and partners to address regional priorities across all sectors that influence social and economic prosperity. The project communicates cross-community analyses and learning to national influencers to inform policies and investments on a larger scale.

Themes for Initiative Aims

Detailed information about each initiative’s aims was consistently available on organizational websites or in documents. Some aims were common across initiatives, whereas others were less frequently mentioned.

Most Common Aims

To Improve the Health and Well-Being of People Within a Specific Geographic Area

Many initiatives addressed health equity aims in a specified geographic area. The geographic scope varied widely across initiatives. For example, some initiatives aim to improve the health of an entire state, and others are focused on improving health of people in part of a single city.

2. **State level.** The aims of the **Colorado Trust** and **Let’s Get Healthy California** are to make Colorado and California, respectively, the healthiest states in the nation.
3. **County or regional level.** The **Pueblo Triple Aim** coalition reflects the county’s aim to become the healthiest county in Colorado through community problem solving and cross-sector collaboration. The **Plymouth and Norfolk Counties Health Compass** has 27 Community Health Alliance Networks (CHNAs) encompassing 351 Massachusetts cities. (Note: At the time of report writing, this initiative had expanded to additional counties and is now called the South Shore Health Compass.)
4. **Local level.** The **Healthy Neighborhoods Healthy Families** initiative aims to revitalize the health and well-being of the neighborhood (i.e., the south side of Columbus, MA) by addressing the social determinants of health. Led by the Nationwide Children’s Hospital, in partnership with residents, a church, and United Way, this initiative approached the neighborhood as a “patient” in cocreating a healthy community.

To Improve the Health and Well-Being of Specific Groups of People Defined by a Personal Attribute or Characteristic

Another common aim was to improve the health and well-being of specific groups of people, such as new mothers or school-age children.

1. **LA County Homeless Initiative.** The initiative aims to enable 45,000 families and individuals to escape homelessness in the first 5 years, while preventing homelessness for 30,000 additional families and individuals. Through a robust collaboration between cities, service providers, county departments, civic leaders, faith-based institutions, and the public, this initiative provided emergency shelters, rapid rehousing, permanent supportive housing, and benefits advocacy for homeless disabled adults.
2. **4th Trimester Project.** The initiative aims to transform the lived experience of women in the first 3 months after birth by creating the care they deserve.
3. **Project Restoration Collaborative.** Led by the Adventist Health Clear Lake Hospital, this innovative, cross-sector, collaborative was formed to address the needs of community members who were high utilizers of police, emergency, criminal justice, and health care services. This collaboration resulted in a 44% reduction in hospital utilization, an 83% reduction in community response system usage, and a 71% reduction in costs for the population.

Other Aims Mentioned by Initiatives

To Fulfill a Statutory Requirement (Federal or State)

A few initiatives noted statutory requirements that shaped their work. For example, the Cincinnati Children's Hospital **Community Health Needs Assessment and Pediatric Health Needs Implementation Strategy** was created in response to the requirements under The Patient Protection and Affordable Care Act of 2010. Under this law, all tax-exempt hospitals need to conduct a formal community health needs assessment once every 3 years and adopt an implementation strategy to meet the community health needs identified through the assessment. Cincinnati Children's 2020 strategic plan includes a goal to help Cincinnati's children to be the healthiest in the nation, emphasizing community partnerships, connecting and integrating primary care, reducing infant mortality and premature births, improving kindergarten readiness and third-grade reading achievement levels, and addressing social influences of health.

To Improve Cross-Sector Planning and Execution of Services

A few initiatives noted aims related to improving coordination, cooperation, or collaboration in planning and executing services offered by constituent sectors. For example, the **Northern Michigan Community Health Innovation Region** is a partnership of health and community providers that serve the health needs of individuals across 10 counties in northwest Michigan. Led by the Northern Michigan Public Health Alliance, made up of seven local health departments, this initiative facilitates the development of a common agenda, shared measurement, mutually reinforcing activities, and continuous communication.

To Empower Communities to Address Equity and Improve Health

Some initiatives aimed to empower communities and other organizations by fostering productive partnerships to drive the well-being of people. For example, the **Piedmont Health Counts Initiative** empowers leaders and community members with the knowledge, data, and ideas they need to build innovative solutions to improve the lives of people in their community and promote health, well-being, and prosperity. The **Conduent Health Communities Institute** is another example that empowers community collaboratives, coalitions, and nonprofits to drive productive partnerships and develop community-based approaches to improve population health.

To Influence Policy at a Broad Level

We found initiatives that expressed an aim to influence state or national policy making. For example, part of the purpose of the previously described **Wellville** experiment is to demonstrate the efficacy of the chosen approaches in hope of persuading policymakers to adopt them.

Themes for Sectors Involved

Example initiatives included a wide variety of sectors. However, it was difficult to reliably classify sectors involved because individual initiatives might:

- Use vague terms such as *our partners* or *youth-serving nonprofits*;
- List organizations involved without identifying applicable sectors; and
- Reference sectors in different ways, such as by function or according to the local ways sectors were organized (e.g., a term like *housing* could encompass different combinations of sectors, such as government agencies, advocacy groups, developers, landlords, etc.)

To classify sectors, we recorded what the source data expressed and then identified which sectors appeared most frequently.

Sectors Commonly Involved Across Initiatives

Initiatives frequently included the sectors shown in Exhibit 4. These sector designations resulted from a thematic analysis of the information provided by example initiatives.

Exhibit 4. Sectors Commonly Found Among Example Initiatives

Sector	Types of Entities Included in This Sector
Economic development	Chambers of commerce, private/public partnership organizations, private investors, and local businesses
Education	Educational institutions, ranging from pre-kindergarten programs to public schools to professional associations representing educators, and public education authorities

Sector	Types of Entities Included in This Sector
Elected government and its executive agencies	Elected representatives at any level of government and executive agencies such as environmental or judicial systems, planning boards, police and emergency response, public health, and sanitation
Employers	Local small business and major employers in an area, associations representing employers
Faith groups	Local churches, temples, or mosques and other faith-based organizations
Health	Health care providers, health payers, and community or patient support organizations (public, private, or philanthropic), such as wellness and exercise centers, rehabilitation centers or support groups, and advocacy groups
Housing	Urban development organizations, municipal planners, housing authorities, real estate developers, or refurbishment/rehabilitation organizations
Human and social services	Parks and recreation, emergency housing, career and job counseling/support, child/family/senior services, and many others
Nutrition	Grocery/retail providers, school-based nutrition programs, food pantries, and soup kitchens
Public health	Federal, state, and local agencies concerned with disease prevention, clinical care provision, healthy schools and workplaces, or health and well-being promotion
Transportation	Transportation authorities (e.g., state or county departments of transportation) or service providers (e.g., airports, bus/train operators)

Most Initiatives Involved Many Sectors Rather Than Just a Few

Many initiatives engaged many sectors. These initiatives were often, but not exclusively, focused on a comprehensive array of goals and objectives to improve processes and outcomes for health and well-being. We found that the number and type of sectors involved in cross-sector alignment initiatives often depended on the exact focus of the initiative. In general, the narrower the scope of the initiative, the fewer the number of sectors included. However, there were exceptions. For example, the **LA County Homeless Initiative** focuses on preventing homelessness, but involves nonprofit service providers, the faith community, neighborhoods, County departments, cities, and many others.

1. The **Healthy Paso Del Norte** initiative included health, economy, education, environment, government, public safety, social environment, and transportation sectors working together to implement the community health improvement plan for the Paso del Norte region.
2. Under the **Cumberland/Salem/Gloucester Health and Wellness Alliance**, local private and public educational, planning and development, human services, legal, employment, social services, and governmental agencies worked with communities to improve the health of

residents in Cumberland, Salem, and Gloucester Counties. They encouraged communities to adopt healthy lifestyles and healthy choices as a way of life.

3. Using the collective impact framework, the **ARCHI** initiative brings together approximately 100 partners to implement a common agenda, create shared measures to document progress, build alignments that create mutually reinforcing work, and forge the trust and relationships to effectively address complex issues, like health disparities. The initiative includes a spectrum of sectors ranging from health care providers to the faith community to retail business to government.

By contrast, some initiatives engaged fewer sectors to meet their stated goals. For example, **Project Restoration Collaborative**, a program started by Adventist Health in a low-income county in California, involved alignment and collaboration among a small number of local organizations representing health, law enforcement, and criminal justice sectors. The initiative aimed to align sector action around “high utilizers”—individuals within the community who were frequent users of services from all three sectors. Similarly, **DE Thrives** is a program operated by the Delaware Healthy Mother and Infant Consortium, which works with sectors relevant to the health and well-being of new mothers and infants, such as health care providers, public health agencies, and government.

Themes for Alignment

Many example initiatives did not describe all four elements of the cross-sector alignment theory of change (i.e., shared purpose, shared data, shared financing, and shared governance) that we used to loosely define and examine alignment. However, these initiatives all go beyond simple coordination of services and engage in a variety of strategies and relationships that are collaborative or rely on alignment. Findings from interviews and the literature review are included in this section to supplement our understanding of this topic.

Alignment That Reflects Shared Purpose

Most examples seem to reflect sectors that recognized a shared purpose, and this shared purpose developed in different ways. For example, shared purpose can develop organically over time as a grassroots effort develops into a formal, structured system. Alternatively, leadership can impose a shared purpose.

We found examples of initiatives whose alignment seemed not to have progressed beyond shared purpose. This happened for a variety of reasons, including that the initiative was recent and had not progressed past this point and that the initiative was organized to permit individual sectors to take action separately toward the shared aim.

1. **North Country Health Compass (NCHC).** This regional health improvement initiative was developed by partners with a shared purpose to improve the health system in rural North Country, New York, to achieve the Triple Aim of improved quality of care, better population health (Berwick, Nolan, & Whittington, 2008), and reduced health care costs through data analysis, community engagement, and advocacy. Developed by a collaborative of regional hospitals, public health agencies, and community-based organizations, the NCHC is a publicly available source of data and strategies to enable residents and leaders from different sectors to understand and address factors influencing health in the region.
2. **Beyond Housing 24:1 Initiative.** This community development initiative in St. Louis, Missouri, includes 24 municipalities in the Normandy school district with one shared goal of “strong communities, engaged families and successful children.” Beyond Housing aligns partners that share in the community’s vision and works with them to address problems in health, housing, employment, and education.

Several interview participants acknowledged that an initial shared purpose, which may itself arise as a result of a specific measure (e.g., juvenile arrest rates), can galvanize groups and prompt shared measurement between sectors. To succeed, all participating sectors must identify with or see their role in the measurement and must perceive that their work has an impact. As one participant said, *“We’re all in this work because we want to see outcomes improve for [our] work. When you can put numbers out, it brings a much deeper focus. Part of the reason is to show that we can help each other achieve our goals.”*

Although many interview participants emphasized the impact that shared purpose and responsibilities can have on alignment, some also noted that measurement should account for differences across sectors in approach toward a common purpose. They argued that alignment should focus on establishing shared purpose between sectors rather than aligning measurement used by the sectors: *“If everyone was aligned, then there wouldn’t be a need for the different approaches we have. No one agency can do what one client needs. Alignment to me, is aligning work to serve the whole person and best understanding what everyone’s lane is in that level of focus.”*

Almost all initiatives further specified goals and objectives tied to alignment aims or conceptual frameworks used or integrated into programs the initiative adopted.

1. **Initiative Aims.** When the aim is to improve health in an area or among a group of people, goals and objectives often highlight specific targets, such as reduced infant mortality or better access to healthy food (e.g., the Trenton Health Team). When the aim is to improve community well-being, objectives might include access to affordable housing and transportation or addressing disparities in economic opportunity (e.g., the **Atlanta Beltline Partnership**).

- 2. Conceptual Frameworks.** Collective power frameworks focus on changing policy, thus initiatives using these frameworks often include components for organizing residents or building capacity for political action (e.g., the **24:1 Initiative**). Racial equity frameworks include objectives to explicitly identify and address disparities and inequities within communities or sociopolitical systems, including health care (e.g., the **Greensboro Housing Coalition**). Other frameworks, such as the Triple Aim, focus on value propositions that balance costs with desirable outcomes, thus initiatives using these frameworks often include objectives to control costs or drive efficiencies (e.g., **the Pueblo Triple Aim Coalition**).
- 3. Programs.** Some initiatives implement one or more existing programs developed by someone else, such as an evidence-based diabetes prevention program or a program to improve children’s readiness for school (e.g., **Michigan Health Improvement Alliance**, which implements national programs like Choosing Wisely and locally developed ones like Dig It!, a community gardens initiative). These programs often include built-in objectives, along with systems and tools for achieving them.

Alignment That Reflects Shared Data and Metrics

We found multiple examples of initiatives that shared metrics, such as process or outcome measures, or shared data with each other, such as data needed to carry out operations.

- 4. Bold Goal Initiative.** Launched in 2015 by Humana, a health insurance company, the initiative addresses social determinants of health to improve the health of communities served by 20% by 2020. The initiative uses population health data to identify individuals experiencing or at risk of food insecurity, loneliness and social isolation, and transportation challenges. It then co-develops solutions with partners in 10 designated BOLD communities to improve health outcomes. Data on the reduction in the number of unhealthy days experienced by members in BOLD communities is shared with community partners and reported annually to evaluate progress.
- 5. San Francisco Indicator Project.** Neighborhood-level data across multiple sectors is captured using 471 datasets to track San Francisco’s improvements on eight dimensions of a healthy and equitable community. The data are shared publicly through a portal, and organizations in different sectors can take account of issues affecting health to support their planning, collaboration, and decisions for maintaining a healthy social and physical environment in San Francisco. (Note: As we prepared this report, the project retired the data portal, which appears to have moved to another organization, San Francisco Health Improvement Partnership.)

Interview participants also noted that for shared measurement to be meaningful for participating sectors, measures must be capable of creating an impact on organizations. Participants also felt that shared responsibility for the measures was a prerequisite for

alignment. One participant noted that there must be “a common commitment, understanding, and then after that it’s that the consequences for the measures are the same. You can’t pick a measure that’s only important to one group in a multi-sector collaboration. They have to be important to all of the major players in a collaboration. You measure what matters, and it has to matter to everyone.”

In the literature, data sharing is described as requisite for “effective collaboration” and plays a strategic role when it comes to determining the contributions of partners and designing incentives for holding partners accountable (Discern Health, 2018). Shared data are viewed as key facilitators to create buy-in and promote collective responsibility toward achieving change. An example of a shared data collection and sharing strategy that permits cross-sector collaboration is the Arkansas Community Institute, which uses housing and hospital data to develop maps that are shared with renters, local code enforcement agencies, and elected officials to support collaborative changes in housing policies (Morley & Bever, 2017).

However, data and information sharing are rare in efforts led by community-based organizations because these entities lack sufficient data infrastructure and expertise (Raday et al., 2018). By contrast, data sharing is common in efforts led by health care and human/social services sectors that have invested considerable time and resources in developing ways to share and analyze data. The literature also offers actionable strategies to sharing data, such as developing data-sharing agreements, aligning technology platforms, and establishing common data dictionaries and analytic methods across sectors (Amarasingham et al., 2018; Discern Health, 2018; Public Health Leadership Forum, n.d.).

Alignment That Reflects Shared Involvement and/or Action Within the Initiative

Example initiatives shared direct action, such as operating in the same physical space, or had shared involvement, such as service delivery collaboration.

1. **Community Schools Program.** Community partners from different sectors act together with educators and parents through the creation of community schools. The shared action is anchored to the school as a physical space where partners leverage their assets to integrate health, social services, and community development with academics. Partners are part of the school-site leadership that designs and implements activities making resources from the community available for students and parents.
2. **Trenton Health Team.** This collaborative in Trenton, New Jersey, is a partnership between three health care centers, the Department of Health and Human services, and a community advisory board of resident leaders. The team collaborates to achieve health goals in a Community Health Improvement Plan. Trenton Health Team is a certified Medicaid Accountable Care Organization serving residents with the greatest health disparities. Shared

involvement is reflected in a city-wide expansion of primary care access and care coordination, as well as engagement with other sectors to implement programs in non-health care sectors that affect health, such as housing.

Alignment That Reflects Shared Governance

Many example initiatives provided little or no information about governance. However, as noted previously, numerous initiatives were operated or overseen by a single organization and as such may not have a formal shared governance structure; these initiatives often had stakeholder groups or advisory boards that provided guidance but may not have had formal decision-making authority.

Some examples of initiatives described shared governance systems; these systems had several forms. Examples included initiatives at the state government level and intended to realign and improve existing governance systems (e.g., Let's Get Healthy California). They also included initiatives governed by a board comprising shared representation from partners or initiatives established as a "governing body," such as a nonprofit entity empowered to direct and oversee action by partnering sectors. Shared governance structures were also executed by paid staff or were entirely voluntary or community-based (i.e., representatives of participating organizations held positions in the shared governance body).

Examples of initiatives operated by shared governance include the following:

1. **Coalition for a Healthy Paso Del Norte.** The Coalition for a Healthy Paso Del Norte consists of major stakeholders from academia, health care, public health, economic development, and city planning, who collectively govern a regional health improvement plan they developed to improve six priority health concerns in the Paso Del Norte region. The coalition collects and disseminates data and resources to inform regional policies through the Healthy Paso Del Norte platform, which tracks progress and makes local health data publicly available. Coalition members also work together to develop strategies to meet priority goals, eliminate health disparities, and lead their respective organizations to respond to health priorities.
2. **Healthy Works (San Diego).** This program is operated by the San Diego Association of Governments (SANDAG), a collaborative of 18 city and county governments in the greater San Diego area that serves regional decision making through multi-level, government-based shared governance. The board governing SANDAG's activities is made up of government officials from the region's local governments. With funding from San Diego Health and Human Services, SANDAG directs the Healthy Works program to improve regional health and quality of life. The program awards grants to local agencies, schools, tribal governments and community organizations, across different sectors for six projects related to regional

planning, transportation, access to food, and physical activity. It includes a public health stakeholder group that offers input on individual initiatives.

Similarly, true examples of shared governance across different sectors were rarely described in the literature. Eleven articles included information about the governance or leadership of cross-sector alignment. Articles varied in the type of information they offered, ranging from an evaluation of an initiative (Dendas, 2018) to offering recommendations about how governance should be carried out (Discern Health, 2018).

Alignment That Reflects Shared Financing, Incentives, and Accountability

We did not find examples that provided clear, readily accessible information about shared financing, incentives, or accountability. Although the literature reflects some key, cross-cutting themes related to the importance and function of shared financing, it does not include information specific to how measurement fits into the financial operation of alignment initiatives.

The literature suggests that shared financial incentives based on a sense of shared risk are a significant factor for alignment across sectors. Shared incentives create buy-in among decision-makers and funders, with one author noting “the degree of separation in funding streams for cooperating organizations deeply affects both the nature of alignment and the opportunities for success/failure” (Discern Health, 2018). Initiatives for health care systems and payors are often supported by financial incentives to reduce overall health care costs (Beaton, 2018; Vaida, 2019). Examples include alternative payment models such as risk-sharing arrangements under Accountable Care Organizations, or reimbursements for providing cross-sector services as in the Accountable Health Communities Model. Similarly, anchor organizations in other sectors, such as employers, purchasers, or real estate developers, are motivated by returns of their financial investments. These returns include financial benefits from improvements in the health and well-being of their workforce or clientele, such as improved productivity or reduced health care expenditures. These benefits may make sectors more “fiscally nimble” (Anchor Institutions Task Force, 2019). Finally, the ability to maximize limited resources also may create incentives for shared financing and alignment. Alignment permits leveraging of contributions that each partner brings and relieves organizations of the need to identify new resources in order to expand their goals (Association of State and Territorial Health Officials, n.d.).

Shared financing commonly results from grant support for alignment, but other financing vehicles exist to support multi-sector initiatives such as pay-for-success contracts, braided and blended state-supported funding, community development financial institutions, the New Markets Tax Credits Program, and the development of wellness trust funds (Hester et al., 2015; Georgia Health Policy Center, 2019; Romero et al., 2018). Combining financing used by several health and housing initiatives, as was done by the Vita Health and Wellness District and

Foundation Communities, may avoid inadvertent disincentives that can weaken partnerships such as the “wrong pocket problem” in which investments are made by one partner, and the returns are received by another (Scally et al., 2017). Novel financing approaches based on hierarchical and parallel risk frameworks also can be designed to develop incentives based on risk sharing and shared accountability.

Other Factors That Influence Alignment

Other factors can influence alignment, including the selection of aims or goals, the way that cross-sector alignment is developed, and how measurement is used. We identified the following factors, which are not mutually exclusive.

Champions

Specific individuals or organizations can drive alignment.

1. **The Colorado Trust** was established in 1985 following the sale of a nonprofit health care organization to a for-profit entity. The nonprofit created the Trust specifically to benefit the health of the people of Colorado. Fundamental aspects of the Trust’s work determined by the founders was a commitment to address health equity and to award funds to Colorado-based organizations whenever feasible (thus keeping the benefits of the Trust’s spending within the state).
2. **Stand Together** is an organization founded by a philanthropist and conservative political advocate, Charles Koch, and reflects the founder’s values.
3. **Wellville**, a funded experiment in community transformation, is championed by two individuals: angel investor Esther Dyson, who holds positions on the boards of many health-related enterprises, and CEO Brian Brush, who previously held positions with health insurance companies and was a consultant at ReTHINK Health.

A Sentinel Event

A few examples of initiatives described a sentinel event which served as a catalyst. For example, **DE Thrives** is an initiative that coalesced around Delaware’s poor ranking on health outcomes for mothers and babies and a particularly troubling measure of disparity in mortality for African American infants.

Funding Availability, Costs, and Feasibility

All initiatives are affected by the realities of funding availability, feasible allocation of resources, and preferences for the ways in which resources are employed. Funding can affect how measurement is used or whether the initiative can sustain its aims or make progress on goals. For example, the **Population Health Collaborative** noted that it was ending the measurement part of its work at the end of 2019 due to lack of funding. The **Atlanta Beltline Partnership**,

begun in 2005 by absorbing an older grassroots organization, has struggled with a variety of challenges with funding and the feasibility of its overall plan for urban redevelopment, including the criticism that its actions and policies have resulted in gentrification and an exacerbation of the problems it was founded to address (Brasch, 2019).

The literature supplements findings from the review of examples with insights into the difficulties that cross-sector initiatives encounter in assembling financing. For example, Erickson et al. (2017) identify financial planning and sustainability as the chief challenges described by cross-sector alignment endeavors who responded to their survey. A large proportion of organizations reported having little or no staff resources, limited operational budgets, and minimal or no financial infrastructure that would facilitate alignment with other sectors. Few (5%) had executed any form of long-range financial plan and most (75%) relied on multiple, short-term resources such as grants, donations, or in-kind services.

Terminology Differences

Scally et al. (2017) noted that partners may struggle to harmonize frames of reference, definitions, and terminology, amidst collaboration. Terminology is interconnected to communication, selection of measures, policies and operational standards that may resist alignment and require training of partners early in a collaboration.

Themes for Role and Use of Measurement

In collecting examples of cross-sector alignment for this review, we excluded candidates that did not appear to demonstrate substantive use of measurement. During this process, we observed many cross-sector initiatives that are actively addressing equity or social determinants of health but do not describe any use of data or measures: 40 of the 42 excluded initiatives lacked information on measurement. An example of such an initiative, Café Momentum, is provided in Exhibit 5. Often, these initiatives exhibited characteristics that strongly implied that they must have shared data with others or used measurement in a galvanizing or sustaining way. For example, Café Momentum might use measures to understand what individual young people need or to assess their progress on achievement. These findings are limited by what cross-sector alignment initiatives choose to highlight about their work and that, often, this may not include a discussion of measurement.

Exhibit 5. Café Momentum

“Teaching kids to play with...Fire & Knives”

This self-sustaining, restaurant-based initiative in downtown Dallas aims to help at-risk youth succeed in becoming full members of society and break the cycle of violence and crime that many adolescents experience. Using a case-management model that addresses various needs youth have as they exit the justice system, the Café partners with juvenile justice authorities, employers, and a philanthropic organization, Stand Together. Young adults receive paid positions in the Café and participate in individualized educational and professional

training programs. They are also connected with other supports they may need, such as trauma recovery support, parenting classes, or mental health services. After completing the 12-month program, graduates are placed in a job with a community partner.

Although the examples included in this review describe substantive use of measures, they often did not include explicit information about whether measurement had a galvanizing or sustaining role or impact on cross-sector alignment. As a result, we caution that our findings on this topic are partly based on reasonable inferences given the way measures were reported or made available by initiatives or how organizations referenced measurement activity, data sharing, or the use of measures in their work.

Measures Used to Galvanize or Sustain Alignment

In initiatives, measures could serve to unify or align sectors around a common purpose or function. At the planning stage, measures helped initiatives focus on goals or determine the nature of cross-sector alignment, thus galvanizing alignment around a shared purpose. Also, measures could help sectors sustain participation in an initiative by demonstrating progress on objectives.

1. **Bold Goal Initiative.** This cross-sector initiative is led by Humana, a health insurance provider, and used a single metric, the healthy days measure, to galvanize alignment across partner sectors (the measure is also used to sustain alignment). This individual self-report measure captures the number of physically and mentally health and unhealthy days in the past 30 days. Sectors and participating organizations also select, use, and share additional measures as needed to support their individual needs.
2. **The Atlanta Regional Collaborative for Health Improvement (ARCHI).** This collaborative began its work by reviewing data and metrics in two counties to look for disparities in the health status among groups of residents. It also used this initial work to develop an “unbiased, data-driven platform” that it uses to drive alignment across sectors.
3. **Camden Coalition SocioNeeds Index.** This proprietary measure is widely used, principally by health systems, to assess community socioeconomic need that is correlated with poor health outcomes. The measure is designed to galvanize alignment across sectors by unifying socioeconomic measures with health metrics.
4. **City of San Antonio.** In this whole-city initiative aimed at addressing inequality, “data makes the case for collection action.” A single dashboard and an individual-level survey (administered by a popular museum) provide data and measures that are integrated into budget allocation, decision-making, and evaluation efforts.

Measures Used to Set or Monitor Specific Alignment Goals or Objectives

Many examples used measures as part of the process of setting goals. Measures appeared to help sectors understand or describe the scope or nature of a health problem or community need. Similarly, measures seemed to play a strong role in permitting cross-sector initiatives to determine whether interim objectives are being met or whether outcomes of interest are showing signs of improvement or change.

1. **North Country Health Compass.** This initiative seeks ways to develop non-biased data and metrics for use in setting goals and monitoring progress. They also promote nontraditional, cross-sector use of measurement resources. For example, they highlight an instance of a town police chief using data on opioid health outcomes to make the case for hiring additional staff to respond to a growing crisis.
2. **Let's Get Healthy California.** This “health in all policies” initiative uses a set of 40 indicators across the six core goals, which are tied to specific health outcomes, to monitor progress on goals. Target objectives within those goals are captured by specific indicators. Moreover, the governing task force identified nine additional indicators that were desirable but for which there was no data source, thus creating a data collection and measurement goal for the alignment initiative.
3. **Healthy Neighborhoods Healthy Families.** This initiative uses measures to assess whether existing third-party programs are selected for implementation as well as to determine and design customized interventions for specific objectives. For example, the organization wrote that “conditions in the community led the HNHF partnership to determine that the stabilization of existing homeowners’ properties and home sales in concentrated areas to provide coordinated safety and security would be the best initial steps. By using delinquent tax records, the Department of Development mapping process, county land bank surveys and foreclosure records, a base assessment was developed to design a multifaceted housing intervention.”

Measures Used to Build Community Action or Advocate for Policy Change

The primary function of some initiatives was to provide measures or data processing and reporting services to sectors as a way of galvanizing or sustaining alignment. Some began with a goal of building community action or creating upstream policy change by providing these services, and others have relatively minor roles in directly providing individual- or community-level services. We also found examples of initiatives who have large roles in direct action to address health equity and are broadly sharing suites of measures that they developed as part of that work.

1. **All-In: Data for Community Health.** This large-scale data and measure aggregation effort undertakes data sharing and evidence-building aimed at informing policy, influencing

resource allocation, and identifying inequities and gaps in care, as well as helping to advance health and health care knowledge and practice.

2. **Pueblo Triple Aim Corporation.** This initiative appears to have begun as an effort by health care providers to implement the Triple Aim framework in one Colorado community. It now operates as a separately governed entity and has expanded its work to include advocacy for policy and program change it perceives as necessary to make successful achievement of the Triple Aim possible. This includes changes to health care reimbursement and public health policies, as well as policies relevant to food insecurity, violence, and the built environment. As part of these efforts, the organization employs and reports Triple Aim metrics, metrics specific to target health and behavioral outcomes, and county health rankings.
3. **THRIVE.** This initiative provides a framework and associated tools useful for creating cross-sector alignment or coalitions. It includes attention to multi-sector strategies for successfully engaging communities and for effecting local and state policy change.

Measures Used for Operational Purposes

Initiatives may collect data and develop measures to help direct and sustain their work. In some cases, such as the **North Country Health Compass** example discussed previously, this includes work to ensure that data and measures used are themselves more equitable and available to sectors who might not normally use them. In others, data sharing and measures are integral to creating the capacity to work together toward shared goals, however that alignment might be designed.

1. **San Francisco Indicator Project.** This initiative aggregates and analyzes data and measures from many sectors and packages them in ways that individual sectors or collaboratives can use them to achieve and sustain alignment around eight domains of wellness.
2. **The Colorado Trust.** This initiative requires its participating communities to collect and interpret data and information to develop plans, monitor progress, and evaluate whether solutions are working. The trust also facilitates a biennial survey of residents that is available to communities for their use and provides a community resource, the Colorado Health Institute, that supports information-gathering and analysis activities to support organizations and policymakers in integrating data use and measures into their operations.
3. **Wellville.** One goal of this initiative is to measure its impact on the health and well-being of the whole community as well as to understand how a focus on specific goals may or may not productively drive alignment or improvement of outcomes. For example, short-term goals may obstruct, rather than enhance, improvement of long-term outcomes. In addition, the initiative includes a focus on understanding best practices for community-level data gathering that permits sectors to identify and share actionable lessons with each other.

Measures Used to Achieve a Holistic Picture of a Community

We found examples of initiatives that combine data sources and measures to more accurately *describe* a community by measuring and gathering data equitably from all its members. These efforts also include using measures to *understand* a community's identity better—its prevailing values, its economic status, its trends in health and well-being, community needs to achieve equity and thrive. *Community* can refer to an entire city or geographic location or a population subgroup within a geographic area.

1. **Camden Coalition of Healthcare Providers' ARISE System.** This system combines data and metrics to “create a multi-dimensional picture of citywide challenges. By linking information from multiple data systems, including criminal justice, health care, and housing, Camden ARISE can help drive better decisions about allocation of resources and address the root causes of recurring public problems” (Camden Coalition of Healthcare Providers, 2020).
2. **Northern Michigan Community Health Initiative.** The initiative seeks to understand the region better by gathering and evaluating socioeconomic and health outcomes data and metrics for all participating communities. These metrics are also ranked and benchmarked against the state. The initiative discerned that there is no consistent one-to-one correlation between socioeconomic rankings and health outcomes, permitting them to develop a richer, more nuanced picture of equity and well-being across the region.
3. **Project Restoration Collaborative.** This initiative used data shared by a variety of sectors to understand the patient population in a rural area of California. It then used this understanding to derive shared metrics for success, develop an intervention model, and create an aligned infrastructure to support community change.

Measurement That Evaluates Alignment Itself

The literature surfaced a few references to measurement used to evaluate alignment itself. For example, Dendas (2018) described measurement used to assess connectedness and collaboration, and Romero et al. (2018) referenced measures of community inclusion. Similarly, Davis, Rivera, and Fujie Parks (2015) described how measures could assess community assets to support collaboration.

Challenges to Shared Measurement

Interview participants described the challenges encountered when trying to share measurement.

Interoperability. A major challenge to effective shared measurement is the technical and practical issues related to sharing data between organizations, such as interoperability of data systems and necessary agreements between entities. Lack of these systems make sharing data difficult between sectors.

Limiting Definitions of Measurement in Some Sectors Could Stifle Innovation. Some participants stated that the health care sector's narrow definition and standards for measurement can prevent exploration of new measures that would be more meaningful across sectors. Further, one participant stated that cross-sector partnerships' emphasis on involving the community to select measures is unnecessary given the standards that exist in health care measurement: *"One of the complicated things is that even though there's a huge amount of energy and connectivity with social determinants of health and engaging sectors, people act like there aren't any standards. Even though the Prepare protocol has been around, accountable communities of health framework, Institute of Medicine, WIN measures. A lot of people think they have to go through a community process to pick new measurement. I think that there are issues here because of the varying individual nature of the projects and there isn't a standard, even though there are many standards."*

Lack of Measures Related to Equity. Participants noted the difficulty of finding measures related to equity or difficulty collecting needed data that could be used to create a measure. Only two participants stated that they had directly included equity measures in their work, and one expressed that it was challenging to collect needed information. Challenges included both getting staff to collect the information and community members' willingness to provide the data. Also, participants pointed out that lack of data about equity impairs the ability to measure the underlying causes of inequity or to develop evidence necessary to affect policy. As one participant noted, *"I want to put a strong plug for including the elements [that] allow us to do disparities analysis. Having gender, age, race, ethnicity, language, LGBTQ identification, physical or mental disability. We can't measure disparities if the data doesn't include these. We can't go upstream if we don't measure the impact on those communities."*

Timeliness. Participants noted that the time lag associated with measurement can prevent organizations from making timely decisions about policies or initiative changes to better meet their desired outcomes.

Themes for Measure Selection Process

We found few examples that provided information about how measures were selected. When measure selection was described, it was often in the most general of terms. For example, an organization might indicate that a committee reviewed and selected measures but not describe the selection process or criteria. (We note, however, that our review of each example was time-constrained and did not permit for an exhaustive search for all reports that might shed light on this question).

The following two examples highlight the limited information that is available about the measure selection process:

1. **The Camden Coalition** bases measure selection partially on health information exchange standards and partially on input from locally convened groups.
2. **The Michigan Health Improvement Alliance** has a large panel consisting of representatives of partner sectors that designs the dashboard and selects measures. Healthy Paso Del Norte and other initiatives that used dashboards reported a similar process.

The literature also provided limited insight into the measure selection process and echoed the same few procedural models, such as using a workgroup to review and select. Discern Health (2018) offered comprehensive criteria for selecting measures in cross-sector collaborations that included the standard considerations of scientific validity, feasibility of collecting and reporting, and relevance to populations or activities, but also highlighted two that are not commonly considered by health organizations: (1) actionable by the organizations involved in the partnership, including both short- and long-term outcomes and (2) linked so that measures used in the social services sector tie to health care structure and process measures and patient- and population-level outcomes. Johnston and Finegood (2015) suggested using applicable professional or industry standards. Elias, Jutte, and Moore (2019) pointed out other criteria that came into play during measure selection, such as whether measures used publicly available data or were free of charge.

Interview participants noted challenges to selecting what to measure. Given that it is important for all sectors to see themselves in the measures, participants noted that reaching agreement on which measures are important can be difficult. This challenge is particularly apparent for efforts led by federal or state governments, whose ability to change measures, data collection, and data systems may be constrained due to regulatory requirements or slow-moving bureaucracy. Sectors may find it difficult to influence these initiatives to change what they measure or adopt new ways to select measures.

Themes for Types of Measures Used

We found the following themes regarding types of measures used by examples of cross-sector initiatives.

Single-Sector Indicators

Initiatives used indicators specific to individual sectors, such as housing availability or unemployment or educational attainment, and might use a few or many measures per sector involved in or targeted by the initiative. Across all the examples, health and health care measures were dominant, but the results are likely skewed because all initiatives had to have some health-related aim to be included in the review. Illustrative examples of this theme include the following:

1. **Take Care New York 2020** uses a variety of measures of economic stress and the environment, such as poverty, rent burden, highest level of education achieved, homes without maintenance defects, homes reporting cockroaches, and number of nonfatal assault hospitalizations.
2. **ARCHI** uses health measures such as rates of chronic conditions and obesity, as well as measures for other individual sectors, such as worker productivity for the employment sector.
3. **Let's Get Healthy California** produces specific datasheets and measures of health disparities.

Cross-Sector Well-Being Indicators

We found numerous initiatives that used individual-level indicators of well-being, which are often inherently cross-sector in nature. These indicators ranged widely from number of healthy days to readiness for school and were typically tied to the initiative's goals and objectives.

1. **Trenton Health Team** uses the Adverse Child Experience score.
2. **Measure of America** created the American Human Development Index, a composite indicator that can serve as an alternative to the GDP and captures health, education, and income data.
3. **Live Well San Diego** uses a set of 10 "Live Well" indicators that includes measures such as percentage of residents spending more than one third of their income on housing and percentage of days with unhealthy air quality.
4. **Bold Goal** uses the healthy days measure and percentage of people experiencing food insecurity.
5. **SAHF Housing** uses the Distressed Communities Index.

Community Health Needs Assessments

Some initiatives started or led by the health care sector used community health needs assessments (CHNA).

1. **Trenton Health Team**, which is a nonprofit collaboration between health care providers and other sectors, uses the community health needs assessment and improvement plan approach and has updated its work every few years. It also gathers and reports a wide variety of other measures, such as Healthy Community Institute Indicators, that cover an array of sectors from education to transportation.
2. **Cumberland/Salem/Gloucester Health and Wellness Alliance, Inc.**, has conducted CHNA activities since 2016 and also utilizes County Health Rankings and measures of

homelessness. The initiative may also use measures of well-being outcomes like physical activity, nutrition, and obesity and unspecified community health data (at the time of analysis, webpages for these items returned errors).

3. **Plymouth and Norfolk Counties Health Compass.** The Blue Hills Community Health Alliance conducted a CHNA in 2011 to anchor its work in building the Health Compass initiative; participating health care providers continue to update their individual needs assessment and implementation strategy documents. This initiative is in flux, having recently expanded and acquired a new name (South Shore Health Compass), a new overarching organizational structure, and new websites.

Success or Impact Measures

Initiatives often report measures of their impact or success in achieving desired outcomes.

1. The **Greensboro Housing Coalition** tracks the number of houses prevented from entering foreclosure.
2. The **Healthy Neighborhoods Healthy Families** initiative reports metrics such as the number of teachers trained or the percentage reduction in reports of disruptive school behavior.
3. The **Atlanta Beltline Partnership** reports metrics such as the number of open trails and parks, number of park visitors, dollars generated in private economic redevelopment, and number of affordable housing units.

Cost Measures

Example initiatives did not often report using cost measures. When these measures appeared, they were sometimes part of a large suite of measures drawn from publicly available measure resources like the Dartmouth Atlas of Health Care. These publicly available metrics are often calculated using segments of Medicare and Medicaid data and thus may or may not be directly relevant to the specific goals of an initiative or its constituent sectors.

1. **Project Restoration Collaborative** uses measures of cross-sector costs for the population of people who are high utilizers of services from the selected sectors.
2. The **Health Starts at Home Initiative** uses health care costs and costs “related to homelessness” as anchor outcome measures.
3. **ARCHI** includes references to health care cost measures and cost/outcome measures like rehospitalization but does not provide details about which measures it uses.

Notably, some initiatives founded in conceptual frameworks that require cost measurement did not appear to be using cost measures. The **Pueblo Triple Aim** initiative, for example, uses the Triple Aim framework that requires examining health outcomes, patient experience, and costs.

For costs, it publicly reports only the rate of avoidable hospitalizations and the illness burden score. These metrics, drawn from the County Health Rankings systems, are proxies for costs.

Large Sets of Measures Versus Small Set of Key Measures

Initiatives varied in using large sets of measures or focusing on a small set of key measures.

1. Large set: **Michigan Health Improvement Alliance** and **Healthy Paso Del Norte** both provide dashboards of hundreds of measures.
2. Key measures: Although they cite numerous measures, the **24:1 Initiative** appears to emphasize certain key measures, including infant mortality, dollars invested in the community, childhood obesity rates, and policy/governance improvement (e.g., policing mergers, municipal mergers).

Individual/Community Measures Versus Publicly Available Measures

Initiatives either used individual- or community-level measures that they gathered themselves, or they used publicly available datasets and measures. Some initiatives used both. The Camden Coalition's **Camden RESET** uses its own measures to assess individual and community-level barriers experienced by patients involved with the justice system.

1. **Family Independence Initiative** collects data directly from participating individuals, calculates and shares measures of individual progress with participants, and shares trend measures more broadly.
2. In addition to using a community health needs assessment, the **Cumberland/Salem/Gloucester Health and Wellness Alliance, Inc.** also tracks the number of homeless individuals in the community and uses publicly available County Health Rankings to track health indicators.
3. **Northern Michigan Community Health Innovation Region** uses a variety of publicly available measures to rank and compare counties to each other and the state.

When an initiative, such as Camden RESET, is one of many of initiatives within a single organization, we could not readily determine whether the initiative was also using other measure resources provided by that entity.

Conceptual Models and Frameworks

We did not find any pattern regarding conceptual models used by the initiative examples. Many initiatives created their own framework or theory of change to guide the cross-sector effort, and others did not specifically describe an underlying framework. The following models or frameworks were referenced by at least two initiatives:

1. ReTHINK Health
2. Conduent

3. THRIVE
4. Collective Impact
5. Healthy People 2020
6. Triple Aim

Similarly, the literature reflects many additional frameworks and models, ranging from the Community Capital Framework to the Wellbeing In the Nation (WIN) framework (e.g., Bradley et al., 2017; Emery & Flora, 2006; Romero et al., 2018).

Frameworks vary according to (a) values prioritized (e.g., policymaking power, economic independence, efficiency); (b) locus of accountability (e.g., which sectors or groups must respond to a perceived problem); (c) nature of action to be undertaken (e.g., what the alignment is intended to achieve); and (d) how measurement is to be used (e.g., as benchmarks, for performance evaluation).

Although the frameworks vary considerably, many share common attributes such as a focus on building healthy populations, addressing equity, or improving communication or coordination of services.

Limitations

We developed a collection of examples and literature, rather than seeking to catalog all possible initiatives or systematically review all relevant literature. Also, we limited our examination of each initiative to documentation readily available online, principally on the initiative's own website. As a result, some important limitations apply to the findings.

First, we cannot make solid claims about the frequency or prevalence of various themes among cross-sector initiatives more generally. For example, we can describe various types of measures that were used, but we cannot say which measures are used most often or which are "best practices" without further exploration.

Second, although we did not find examples that clearly described shared financing, this may be because this information is not highlighted in readily available sources. For example, initiatives might identify a grantor without revealing any details about the grant. Similarly, a nonprofit alliance might identify partners without indicating whether or how they contributed financially.

Finally, even in the 3 months taken for this review, initiatives changed in substantive ways. For example, one initiative greatly expanded in geographic scope, whereas another ended its measurement program. In another case, a community health alliance led by care providers

appeared to forge a new relationship with a regional coordinating council focused on transportation. These changes highlight how cross-sector alignment work is evolving and rapidly changing, and this report captures a moment in time. A report developed at a different time, or over a longer period of time, might have resulted in different, additional themes.

Discussion

The purpose of the environmental scan was to describe the landscape of existing cross-sector alignment efforts and how they use measurement in order to shed light on three questions. In this section, we will explore what the results of the scan teach us about these questions:

- How do existing efforts use measurement as a lever to create alignment among sectors in addressing health equity?
- What features of measurement drive alignment across sectors for community well-being?
- What cross-sector metrics are most commonly used as “north stars” or targets to measure health and community well-being?

How Do Existing Efforts Use Measurement as a Lever to Create Alignment?

Measurement plays a catalytic role in **motivating sectors to collaborate**. The examples, literature, and interviews demonstrated that measures helped determine shared goals or identify shared risk and financial incentives. The literature and interviews identified financial accountability and data sharing as ways to create buy-in for collaboration. Ongoing measurement to track progress, monitor outcomes, and fulfill goals is essential to sustain alignment.

Cross-sector initiatives **use measurement to identify and describe a health equity challenge or to reveal that an inequity exists**. A measure, perhaps generated for another purpose, may spark awareness of inequities and generate the political or organizational will to act. Alternatively, initiatives that already recognize applicable social determinants of health use measurement to describe and define a target inequity they wish to address. These **uses of measurement highlight the need for common action across sectors to succeed in addressing health equity**. In part, measurement works as a lever for alignment by demonstrating that apparently disparate problems are in fact closely related. In this way, **measurement helps delineate the common ground between sectors** that may otherwise operate separately. Measurement can accomplish this feat even when the values of organizations from different sectors may themselves not be aligned. For example, the Stand Together organization likely holds different underlying values and suppositions about the causes of—and best solutions for—health inequities than the other organizations with which it works, but measures of poverty, incarceration, and unemployment help create alignment between Stand Together and

other organizations that focus on these issues. Measurement also appears to **motivate financial and policy commitments to address health equity**. These commitments may be essential to begin alignment as well as to sustain it in the long term.

What Features of Measurement Drive Alignment Across Sectors for Community Well-Being?

The findings suggest several ways that measurement sustains cross-sector alignment once it has begun.

First, **measurement shows the impact on outcomes or processes** that illuminate whether alignment is accomplishing its aims. Without concrete ways of assessing impact, sectors have little motivation to continue pursuing alignment efforts, and the initiative may be abandoned.

Second, **measurement helps cross-sector efforts divide a big problem into manageable, constituent health equity goals**. Measurement can, for example, help a cross-sector initiative that aims to create “good health and well-being for all” to begin by addressing specific targets, such as improving physical activity in the community or addressing environmental conditions that lead to high rates of illness. Initiatives that seek broad redevelopment of an urban area can use measurement to create and monitor progress toward specific targets, such as a certain number of affordable housing units.

Third, **measurement creates the need for common infrastructure and, often, common governance and financial commitments** that may help sustain or expand alignment even after achieving target goals. These new structures may permit initiatives to see new avenues of action that they could not perceive before (e.g., initiatives that began with one objective, such as implementing the Triple Aim in a health organization, then grew into something larger and more ambitious). We also saw examples of the development of measurement infrastructures that were ultimately shut down because the initiative did not achieve progress as hoped.

Finally, **measures can be applied in different ways to serve different needs**. Measurement exhibits this feature in two important ways: a single “north star” measure may be flexibly applied by multiple sectors aligned around a shared goal, or a suite of measures can be used so that sectors may use different metrics that help them understand their part in addressing a shared problem. Interview participants, in particular, noted that each participating sector in an initiative must be able to see themselves in the measures and be able to assess the quality and performance of their work.

What Cross-Sector Metrics Are Most Commonly Used as “North Stars”?

The scan found that initiatives use different measures and identifying “commonly used” metrics may present several inherent challenges. For example, when an initiative provides access to hundreds of measures, it is difficult to know which ones might function as north stars across sectors. Similarly, cross-sector initiatives may be actively seeking to understand this question themselves, with some organizations identifying measures they would like to have but for which no data collection process is currently available. Finally, the metrics used to guide alignment seem invariably tied to the initiative’s aim. As these vary, so too do the metrics used.

However, from the scan, it is possible to hypothesize what kind of measures are used as north stars. **Where a single measure was used, the resulting metric itself reflected outcomes of cross-sector experience.** The Bold Goal initiative’s use of the healthy days measure is a clear example. Because the measure is at the individual level and is self-reported, it captures the full spectrum of an individual’s own perception of whether he or she has been generally healthy or not. It is not tied to specific aspects of health and well-being that might be more or less important to any one sector, as is the case with measurement of affordable housing or diabetes outcomes. **Some initiatives used a suite of measures or a composite measure that sought to integrate outcomes or processes across several sectors.** These measures may be appealing because they may allow a sector to evaluate its specific contribution to health equity. Where ambitious cross-sector aims are at stake, carefully selected measure sets provide explicit assessment of change in status that can help inform decision making.

References

- Amarasingham, R., Xie, B., Karam, A., Nguyen, N., & Kapoor, B. (2018). *Using community partnerships to integrate health and social services for high-need, high-cost patients*. New York, NY: The Commonwealth Fund.
- Anchor Institutions Task Force. (2019). *Value added: Adopting a “social determinants of health” lens*. Retrieved from <https://www.margainc.com/wp-content/uploads/2019/03/AITF-White-paper-on-SDOH.pdf>
- Association of State and Territorial Health Officials. (n.d.). *Maximizing limited resources through cross-sector partnerships*. Integration Forum. Retrieved from https://www.astho.org/uploadedFiles/Programs/Health_Systems_Transformation/Primary_Care_and_Public_Health_Integration/Maximizing-Limited-Resources-Through-Cross-Sector-Partnerships.pdf
- Beaton, T. (2018, March 28). Payers form coalition to address social determinants of health. *Health Payer Intelligence*. Retrieved from <https://healthpayerintelligence.com/news/payers-form-coalition-to-address-social-determinants-of-health>
- Berwick, D., Nolan, T., & Whittington, J. (2008). The triple aim: Care health and cost. *Health Affairs (Millwood)*, 27(3), 759–769.
- Bradley, K., Chibber, K. S., Cozier, N., Meulen, P. V., & Ayres-Griffin, C. (2017). Building Healthy Start grantees' capacity to achieve collective impact: Lessons from the field. *Maternal and Child Health Journal*, 21(Suppl 1), 32–39. doi:10.1007/s10995-017-2373-1
- Brasch, B. (2019, November 11). Sandy Springs talks affordable housing and Atlanta Beltline. *The Atlanta Journal-Constitution*. Retrieved from <https://www.ajc.com/news/local/sandy-springs-talks-affordable-housing-and-atlanta-beltline/ObZaAj8FLRY18BXdBG0QMK/>
- Camden Coalition of Healthcare Providers. (2020). *Integrating public data to solve public problems*. Retrieved from <https://camdenhealth.org/connecting-data/cross-sector-data/>
- Center for Sharing Public Health Services. (2019). *Cross-sector Innovation Initiative: Environmental Scan Full Report*. Alexandria, VA: Public Health National Center for Innovations.

- Davis, R., Rivera, D., & Fujie Parks, L. (2015). *Moving from understanding to action on health equity: Social determinants of health frameworks and thrive*. Oakland, CA: Prevention Institute.
- Dendas, R. (2018, September 12). Addressing complex social determinants of health in one region by building cross-sectoral partnerships. *Health Affairs Blog*. Retrieved from <https://www.healthaffairs.org/doi/10.1377/hblog20180911.903037/full/>
- Discern Health. (2018). *Approaches to cross-sector population health accountability*. Washington, DC: AcademyHealth.
- Elias, R. R., Jutte, D. P., & Moore, A. (2019). Exploring consensus across sectors for measuring the social determinants of health. *Social Science and Medicine Population Health*, 7, 100395. doi:10.1016/j.ssmph.2019.100395
- Emery, M., & Flora, C. (2006). Spiraling-up: Mapping community transformation with community capitals framework. *Comm Develop*, 37(1), 19–35.
- Erickson, J., Milstein, B., Shafer, L., Pritchard, K., Levitz, C., Miller, C., & Cheadle, A. (2017). *Progress along the pathway for transforming regional health: A pulse check on multi-sector partnerships*. Retrieved from <https://www.rethinkhealth.org/wp-content/uploads/2017/03/2016-Pulse-Check-Narrative-Final.pdf>
- Georgia Health Policy Center. (2019). *Bridging for health: Improving community health through innovations in financing*. Atlanta, GA: Author.
- Georgia Health Policy Center. (n.d.). *Cross-sector alignment theory of change*. Retrieved from <https://ghpc.gsu.edu/download/cross-sector-alignment-theory-of-change/?wpdmdl=4752171&refresh=5d88c3cc451971569244108>
- Health Enhancement Research Organization. (2016). *Developing culture of health metrics that really matter to companies and communities: Final report*. Retrieved from <https://hero-health.org/research/topics/culture-of-health/>
- Hester, J., Strange, P., Seeff, L., Davis, J., & Craft, C. (2015). *Toward sustainable improvements in population health: Overview of community integration structures and emerging innovations in financing*. Atlanta, GA: CDC.

- Johnston, L. M., & Finegood, D. T. (2015). Cross-sector partnerships and public health: Challenges and opportunities for addressing obesity and noncommunicable diseases through engagement with the private sector. *Annual Review of Public Health, 36*(1), 255–271. doi:10.1146/annurev-publhealth-031914-122802
- Monk, A. (2019, December 22). Housing coalition has made a difference for three decades. *News & Record*. Retrieved from https://www.greensboro.com/opinion/columns/antonia-monk-richburg-housing-coalition-has-made-a-difference-for/article_743134d6-b576-5500-be64-2b7fa959f27b.html
- Morley, R., & Bever, E. (2017). *Six projects use data to improve health equity*. Washington, DC: The Pew Charitable Trusts.
- Public Health Leadership Forum. (n.d.). *Partnering to catalyze comprehensive community wellness: An actionable framework for health care and public health collaboration*. Washington, DC: Health Care Transformation Task Force.
- Raday, S., Krodel, N., & Chan, A. (2018). *Human services organizations: Partnering for better community health*. New York, NY: Nonprofit Finance Fund.
- Romero, D., Echeverria, S. E., Duffy, M., Roberts, L., & Pozen, A. (2018). Development of a wellness trust to improve population health: Case-study of a United States urban center. *Preventative Medicine Reports, 10*, 292–298. doi:10.1016/j.pmedr.2018.03.009
- Scally, P. S., Waxman, E., Gourevitch, R., & Adeeyo, S. (2017). *Emerging strategies for integrating health and housing*. Washington, DC: Urban Institute.
- Vaida, B. L. (2019). For the uninsured in Memphis, a stronger safety net. *Health Affairs (Millwood), 38*(9), 1420–1424.

Attachment A. Detailed Methods

Methods for Examples of Cross-Sector Alignment

Search Strategy. We used several strategies to identify candidates for review:

1. *Examination of literature.* We extracted numerous examples of cross-sector alignment from articles and grey literature on the topic.
2. *Suggestions from knowledgeable individuals.* We received numerous suggestions from AIR team members, consultants, RWJF staff, and Steering Committee members.
3. *Searches using Google and Bing.* We conducted keyword searches using keywords shown in Exhibit A-1.
4. *Review of organizational websites.* We reviewed websites for a variety of sponsoring organizations, such as the Kresge Foundation or Georgia Health Policy Institute, to identify potential candidates.

Exhibit A-1. Keywords Used in Searches for Examples and Literature

Concept	Keywords Used
Cross-sector	Cross-sector, multisector, intersectoral, across sectors
Alignment	Alignment, collaboration, collective impact, collaborative decisionmaking, alliance
Measurement	Measurement, measures, indicators
Health equity	Health equity, health disparity, health status disparities, health care disparities, social determinants of health

To identify candidates, we used the criteria shown in Exhibit A-2 to determine which to examine in more detail and which to exclude.

Exhibit A-2. Inclusion and Exclusion Criteria for the Environmental Scan

- Included alignment with sectors other than health care delivery and public health
- Included alignment directed toward equity
- Included measurement used by a cross-sector effort to galvanize or sustain alignment
- Excluded items from non-U.S. countries
- Excluded items discussing measurement conducted by an external third party (e.g., research studies that conducted independent evaluations of cross-sector efforts and applied their own measures to do so)
- Excluded items that discussed cross-sector alignment generically or in the aggregate, rather than describing concrete examples

Data Review and Extraction. As candidates were identified, we first conducted a review to determine whether the initiative met the following additional criteria for inclusion in the review and analysis:

1. **Diversity of Sector Representation:** To ensure that the review did not skew in the direction of cross-sector alignment aimed principally at improving access to health care, we sought to include initiatives that
 - a. included multiple sectors *other than* health care delivery and/or public health and were not focused primarily on increasing health care access or quality, *or*
 - b. placed at least one social service sector “at the center.” Examples of social service sectors include housing or education.
2. **Direct Action on Addressing Equity-Related Goals or Social Determinants of Health:** We included initiatives that undertake direct actions toward addressing social determinants or building equity in areas that affect physical or psychosocial health and well-being. For example, we included initiatives that implement action plans, such as directly addressing affordable housing or altering public policy. We excluded organizations such as think tanks or consultants; these organizations were cataloged separately as resources.
3. **Evidence of Substantive Use of Measurement:** We included initiatives for which there was clear evidence that measurement had a significant role within the initiative. For example, measures (or shared data) were used to establish and guide relationships among sectors, identify program aims or goals, or monitor progress and guide course corrections. We excluded initiatives that reported metrics (e.g., on their website) but did not indicate how they were used.
4. **Availability of Information:** Finally, we assessed whether sufficient information about the initiative was readily available online to enable us to conduct further data extraction. A few promising candidates that lacked the necessary amount of information may be further explored through key informant interviews or supplemental literature reviews.

Items that met inclusion criteria were then assigned to an analyst for deeper review and data extraction. The analyst summarized information relevant to topics shown in Exhibit A-3.

Exhibit A-3. Data Extraction Topics for Examples of Cross-Sector Alignment

- When the initiative was established and whether it was ongoing
- Identity of the primary sponsors and/or funders
- Geographic scope
- Complexity of the initiative
- Sectors included
- Aims, goals, and objectives
- Type/degree of alignment
- How measurement was used for alignment and/or other purposes
- Which measures are used and/or reported
- How measures were selected
- Frameworks or conceptual models used

Three analysts then reviewed the extracted data to do the following:

1. Develop judgments about the nature of alignment exhibited in each example. To reach a determination, analysts considered the degree to which each example reflected the core features of shared purpose, data, financing, and governance found in the cross-sector alignment theory of change developed by the Robert Wood Johnson Foundation and the Georgia Health Policy Center (Georgia Health Policy Center, n.d.).
2. Identify patterns and themes across the topic areas. For each topic area, one analyst read through the extracted data to look for repeating concepts or characteristics.
3. Identify cross-cutting themes. Three analysts considered all the findings together to identify overarching themes.

Methods for Literature

Search Strategy. We conducted a limited search and retrieval of peer-reviewed and gray literature on the topic of cross-sector alignment, social determinants of health, and measurement in health and well-being. We used two strategies to identify literature for review:

1. We requested AIR team members, consultants, and steering committee members to suggest content for review.
2. We conducted searches in PubMed and Google scholar using keywords shown in Exhibit A-1. These searches were limited to the most recent 5 years and publications in English.

Data Review and Analysis. We scanned the resulting sets of retrieved examples and publications to identify those that met the inclusion and exclusion criteria shown in Exhibit A-2. We then conducted a limited review of full-text to extract information about the following:

- The nature of cross-sector alignment and collaborative structures/processes

- The role of measurement in creating or sustaining alignment
- Measures referenced and how they were selected
- Governance and leadership
- Financial incentives and accountability
- Data sharing
- Facilitators and barriers

Two analysts then reviewed the extracted data to discern patterns and themes across the topic areas, referring back to full text as needed for additional context or detail.

Methods for Resources

Resources were catalogued as they were identified during the review of peer-reviewed and gray literature, and through the process of searching for examples. Resources, as defined here, included materials and organizations that support cross-sector endeavors executed by others. These resources include guides and tools, as well as organizations that offer consulting or other services to support cross-sector alignment efforts.

We recorded the name of the resource, its primary URL, and a brief description of what it provides or how it would be of use to cross-sector initiatives. For each item, we also assigned up to four keywords that label the types of products or services provided. This classification permits sorting and filtering of the catalog. For example, keywords included “tools,” “measures,” “consulting,” and “capacity building,” among others. We did not conduct an analysis of these data.

Methods for Interviews

We sought interview participants who had significant experience with cross-sector alignment and/or health equity. Candidates were recommended by project team members and identified through a professional conference. The interviews had four primary goals:

1. Assess the meaning and current use of measurement in the participants’ respective fields, particularly in relation to cross-sector initiative work.
2. Assess whether/how measurement has impacted alignment across sectors in participants’ related work.
3. Identify additional initiatives or perspectives that should be incorporated into this scan or future updates.
4. Seek insight on information gaps identified through the literature review.

Participants were recruited by e-mail, and interviews were conducted by an experienced interviewer. We conducted the 40-minute interviews by phone between December 2019 and January 2020. The interview guide allowed for the participants to provide insight on their individual and organizational experience regarding the following:

- Measurement in cross-section initiatives
- Incorporation of racial equity into initiatives
- Community engagement efforts
- Recommendations for inclusion in current scan or future updates

The interviewer remained flexible with questions to ensure that participants were able to share all experiences they thought were relevant. Interviews were recorded, and notes were finalized within 48 hours. The interviewer completed a debrief form including key takeaways after each interview.

One analyst reviewed the initial key takeaways and full interview notes to identify common themes across the interviews.

Attachment B. List of Example Initiatives

Initiative Name	URL Link
24:1 Initiative	https://www.beyondhousing.org/our-approach https://www.beyondhousing.org/uploads/files/beyondhousing-impactreport-2017.pdf
4th Trimester Project	https://jordaninstituteforfamilies.org/innovate/4thtrimesterproject/
All-In: Data for Community Health	https://www.allindata.org/
ARCHI: Atlanta Regional Collaborative for Health Improvement	http://archicollaborative.org/
Atlanta Beltline Partnership	https://beltline.org/tag/atlanta-beltline-partnership/
Bold Goal Initiative	https://populationhealth.humana.com/ ; https://populationhealth.humana.com/wp-content/uploads/2019/08/Humana_2019_-_BoldGoal_ProgressReport.pdf
Boston Foundation's Health Starts at Home Initiative and CONNECT	https://www.tbf.org/nonprofits/grant-making-initiatives/health-starts-at-home
Bridges to Health Pathways Program	https://cghealthcouncil.org/programs/bridges-to-health-pathways-program/
Camden Coalition of Healthcare Providers	https://camdenhealth.org/
Cincinnati Children's Hospital Community Health Needs Assessment and Pediatric Health Needs Implementation Strategy	https://www.cincinnatichildrens.org/about/community/health-needs-assessment
City of San Antonio TX	https://www.sa2020.org/ ; https://www.rwjf.org/en/library/features/culture-of-health-prize/2018-winner-san-antonio-tx.html
Community Schools Program/Model	http://www.communityschools.org/aboutschools/what_is_a_community_school.aspx
Conduent Healthy Communities Institute	https://help.healthycities.org/hc/en-us
Cumberland/Salem/Gloucester Health and Wellness Alliance, Inc.	http://gethealthycumberlandsalem.org/
DE Thrives	https://dethrives.com/

Initiative Name	URL Link
Family Independence Initiative	https://www.fii.org/approach/ ; https://www.facebook.com/1224429014390746/posts/1392760280890951?sfns=mo (video interview)
Garrett County, MD - Community Engagement Team	https://mygarrettcountry.com/
Greensboro Housing Coalition	http://www.greensborohousingcoalition.org/
Healthy Communities Initiative (Federal Reserve Banks and RWJF)	https://www.buildhealthyplaces.org/measureup/
Healthy Neighborhoods Healthy Families	https://www.nationwidechildrens.org/about-us/population-health-and-wellness/healthy-neighborhoods-healthy-families
Healthy Paso Del Norte	http://www.healthypasodelnorte.org/
Healthy Works	https://www.sandag.org/index.asp?projectid=381&fuseaction=projects_detail
Let's Get Healthy California	https://letsgethealthy.ca.gov/
Live Well San Diego	http://www.livewellsd.org/content/livewell/home/data-results.html
Los Angeles County Homeless Initiative	https://homeless.lacounty.gov/
Measure of America of the Social Science Research Council	https://measureofamerica.org/project/
Michigan Health Improvement Alliance	https://mihia.org/
North Country Health Compass	http://www.ncnyhealthcompass.org/
Northern Michigan Community Health Innovation Region (CHIR)	https://northernmichiganchir.org/about/
PGC HealthZone	http://www.pgchealthzone.org/
Piedmont Health Counts	http://www.piedmonthealthcounts.org/
Plymouth and Norfolk Counties Health Compass/ Blue Hills Community Health Alliance (CHNA 20)	http://www.bluehillscha.org/south-shore-compass
Population Health Collaborative	http://www.k2hwny.org/
Project Restoration Collaborative	https://www.sciencedirect.com/science/article/pii/S2405452619301247
Pueblo Triple Aim Coalition	https://pueblotripleaim.com/
San Francisco Indicator Project	https://www.sfindicatorproject.org/
Stand Together	https://standtogether.org/who-we-are

Initiative Name	URL Link
Stewards for Affordable Housing for the Future (SAHF) Outcomes Initiative	https://www.sahfnet.org/our-impact
Take Care New York 2020 / Neighborhood Health Initiative	https://www1.nyc.gov/site/doh/about/about-doh/take-care-new-york-2020.page https://www1.nyc.gov/site/doh/about/about-doh/tcny-neighborhood-initiative.page
The Colorado Trust	https://www.coloradotrust.org/
THRIVE: Tool for Health & Resilience in Vulnerable Environments	https://www.preventioninstitute.org/tools/thrive-tool-health-resilience-vulnerable-environments
Trenton Health Team	https://trentonhealthteam.org/
Wellville	http://www.wellville.net/

Attachment C. List of Resources

Resource Name	URL Links	Brief Description
Audre Lorde Project	https://alp.org/	The Audre Lorde Project is a Lesbian, Gay, Bisexual, Two Spirit, Trans, and Gender Non-Conforming People of Color community organizing center, focusing on the New York City area. It provides community-organizing programs and tools and will partner with organizations seeking to address the needs of these communities.
Build Healthy Places Network	https://buildhealthyplaces.org/	The organization helps connect leaders and practitioners who are interested in collaboration. It provides a knowledge base for cross-sector collaboration efforts, such as tools, publications, and a partner finder.
Building Healthy Places Initiative (Urban Land Institute)	https://americas.uli.org/research/centers-initiatives/building-healthy-places-initiative/building-healthy-places-toolkit/	This multi-faceted program generates research, resources, and collaborative events designed to leverage the Urban Land Institutes networks to influence programs, places, and communities in ways that improve health and well-being.
CDC Social Determinants of Health	https://www.cdc.gov/socialdeterminants/index.htm	This CDC resource provides a comprehensive guide to CDC programs focused on social determinants of health, as well as research, data, tools, and policy resources.
Center for Sharing Public Health Services	https://phsharing.org/why-cjs/	This organization provides access to tools, techniques, expertise, and other resources intended to help collaboration among sectors, with a focus on public health departments.
Child Opportunity Index	http://www.diversitydatakids.org/child-opportunity-index	This free tool maps neighborhood-based opportunity for children in 100 large metropolitan areas.
City Health Dashboard	https://www.cityhealthdashboard.com/	This tool provides access to 37 measures of health, the factors that shape health, and drivers of health equity to guide local solutions for 500 U.S. cities. It also provides best practices and strategies for improving health and well-being, as well as links to other useful resources.
Common Good Forecaster	http://measureofamerica.org/forecaster/	This tool uses Census and other data sources to model the impact of education on community outcomes. It is part of the Measure of America initiative.

Resource Name	URL Links	Brief Description
Core Quality Measures Collaborative (CQMC) Core Sets	https://www.ahip.org/ahip-cms-collaborative-announces-core-sets-of-quality-measures/	This resource provides a set of recommended core measures for assessing the quality of health care.
County Health Rankings & Roadmaps Program	https://www.countyhealthrankings.org/explore-health-rankings/use-data	This program builds awareness of factors that influence health, provides reliable and sustainable data and measures to help communities identify opportunities to improve health, provides learning guides and coaches to help organizations undertaking community action, and documents strategies that communities or initiatives have used successfully to address equity and a culture of health.
Cross Sector Partnerships to Address Social Determinants of Health (ASTHO)	https://www.astho.org/Clinical-to-Community-Connections/Cross-Sector-Partnerships-to-Address-Social-Determinants-of-Health/	This guide to various resources and organizations can be used to develop and sustain cross-sector partnerships focused on social determinants of health.
Data Across Sectors for Health (DASH)	https://dashconnect.org/	This program provides guidance and tools focused on connecting information systems and sharing data. The program also provides grant support for organizations seeking to apply the tools and strategies.
Data Set Directory of Social Determinants of Health at the Local Level	https://www.cdc.gov/dhdsp/data_set_directory.htm	This older (2014) directory of data sets includes social determinants data elements and provides element-level detail about the data available and the sources that provides them.
Data2GoHealthNYC	https://data2gohealth.nyc/	This companion tool for Data2GoNYC focuses on health sectors. It is part of the Measure of America initiative.
Data2GoNYC	https://www.data2go.nyc/	This free online tool presents metrics and maps for the New York City area. It is part of the Measure of America initiative.
Gallup Sharecare Well-Being Index	https://www.sharecare.com/static/well-being-index	Based on nationwide surveys, this measure aims to capture well-being in communities. (Note: Users must register to download reports.)
Health Equity and Social Determinants of Health (ASTHO)	https://www.astho.org/Programs/Health-Equity/	This guide provides resources relevant to health equity and social determinants.

Resource Name	URL Links	Brief Description
Health Leads	https://healthleadsusa.org/	This website provides frameworks, toolkits, and other resources for organizations seeking to address community health goals.
Health Opportunity and Equity (HOPE) Initiative	http://www.nationalcollaborative.org/our-programs/hope-initiative-project/	This initiative tracks a set of standard measures of health, well-being, socioeconomic factors, and the built environment for all states. It makes them available in a chartbook and offers benchmarks.
HealthBegins	https://www.healthbegins.org/	This consulting firm works with health care and other community partners to address social determinants through improving outcomes, controlling costs, and advancing equity. The website includes guides to resources for equity and social determinants.
Healthy Outcomes Initiative	https://kresge.org/sites/default/files/library/healthy-outcomes-initiative-report.pdf	This initiative's aim is to explore how community-based organizations could partner with health systems, payers, and government to improve community health. The initiative fostered collaboration and developed capacity within organizations through a learning network and through training, as well as developed and shared a readiness assessment tool.
Healthy Workplaces Healthy Communities	http://get-hwhc.org/	This employer-community group provides tools and strategies for "building support and investing in shared priorities." It offers resources such as a guide to building the business case for community health; emerging practices; case studies; allocating resources; selecting strategies; and role descriptions for participating sectors.
Hero Health	https://hero-health.org/	This national nonprofit is dedicated to identifying and sharing best practices in the field of workplace health and well-being (HWB) to improve the health and well-being of workers, their spouses, dependents, and retirees. It provides a HERO scorecard for health and well-being as well as reports, benchmarks, and other resources. It offers membership with additional benefits.
Mapping America	http://measureofamerica.org/maps/	This mapping tool models 100+ indicators based on ZIP codes. It is part of the Measure of America initiative.
Measure of America	http://measureofamerica.org/	This website provides resources, tools, and services for organizations seeking to address health, well-being, and opportunity.

Resource Name	URL Links	Brief Description
Metrics for Healthy Communities	http://metricsforhealthycommunities.org/	This website provides logic models, measures, data, and other resources that can be used in programs or initiatives focused on social determinants. Resources are designed to be adapted or tailored to fit individual initiative needs.
National Center for Medical Legal Partnership	https://medical-legalpartnership.org/about-us/	The National Center for Medical-Legal Partnership, based at George Washington University, leads education, research, and technical assistance efforts to help every health organization in the United States leverage legal services as a standard part of the way they respond to social needs. Medical-legal partnerships integrate the unique expertise of lawyers into health care settings to help clinicians, case managers, and social workers address structural problems at the root of many health inequities.
National Environmental Database (NED)	http://ned.ud4htools.com/about/	This website provides environmental metrics at the Census block group level to enable the assessment of how neighborhood context can support or hinder public health. The NED aggregates information from more than 30 national and region-specific databases, containing more than 200 variables. The NED establishes a nationally consistent, standardized and centrally located set of individual and composite metrics that characterize the built, natural, and social environment.
National Prevention Strategy	https://www.hhs.gov/sites/default/files/disease-prevention-wellness-report.pdf	This 2011 document encompasses the HHS national strategy to enhance health and well-being and address disparities through a coordinated approach to prevention. It comprehensively describes a wide array of objectives and data or metrics related to these aims, as well as recommended federal actions to support achievement of goals.
Nonprofit Finance Fund	https://nff.org/	This organization serves as a funder and consultant specializing in building cross-sector capacity to address social determinants.
Nonprofit Readiness for Health Partnership Tool	https://nff.org/fundamental/nonprofit-readiness-health-partnership?utm_source=Health+Eblast+for+Kresge+RWJF+tools+%26+more+Oct+24&utm_campaign=FallWebinarSeries2017&utm_medium=email	This tool helps community-based organizations that are considering partnering with health care organizations identify capacity or investment needs so that they can be well positioned to explore partnership opportunities.

Resource Name	URL Links	Brief Description
Partnership Assessment Tool for Health (PATH)	https://nff.org/fundamental/partnership-assessment-tool-health	PATH provides a format to understand progress toward benchmarks characteristic of effective partnerships, identify areas for further development, and guide strategic conversation. The objective of the tool is to help partnering organizations work together more effectively and maximize their impact.
Pathways to Population Health	http://www.pathways2pophealth.org/	This website provides tools for planning efforts to improve population health, evaluating progress toward goals.
PolicyMap Health Indicators	https://www.policymap.com/	This fee-based, easy-to-use online system allows users to map basic data on a variety of topics. The system can use publicly-available and proprietary data together.
ReTHINK Health Ventures	https://www.rethinkhealth.org/	This model and set of recommendations and resources is designed for organizations engaging in transformative change to produce better health and well-being for all.
Social Impact Calculator	https://www.liifund.org/calculator/	Organizations can use this free, online calculator to estimate the dollar social value of specific projects or services, including affordable housing, early childhood education, graduation rates, and community health centers. The calculator created and maintained by the Low Income Investment Fund.
State Health Access Data Assistance Center (SHADAC)	https://www.shadac.org/	This website provides research, analysis, and evaluation services relevant to health policy and reform. It also provides some metrics, such as state profiles, for free.
State of Place	http://www.stateofplace.co/	This fee-based service provides metrics to help organizations understand the current state of a community and model the impacts of proposed plans.
Sustainable Community Indicator Catalog	https://communityindicators.net/resources/sustainable-community-indicator-catalog/	This catalog of metrics is relevant for measuring progress toward sustainability objectives in communities.
The National Reentry Resource Center	https://csgjusticecenter.org/nrrc	This federally operated resource center provides a wide variety of resources, tools, and services relevant to supporting corrections and supervision that aims to reduce recidivism in the penal system. The website includes tools and resources to assist in developing and implementing collaborative case plans, as well as publications, resources, and links to organizations in other relevant topic areas.

Resource Name	URL Links	Brief Description
THRIVE	https://www.preventioninstitute.org/tools/thrive-tool-health-resilience-vulnerable-environments	THRIVE is a framework for understanding how structural drivers like racism have impacts in terms of the social-cultural, physical/built, and economic/ educational environments at the community level. These community-level indicators capture the community's determinants of health. THRIVE is also a tool for engaging community stakeholders across sectors in assessing the status of community determinants, prioritizing them, and taking action to change them in order to improve health, safety, and health equity.
Toolkit for Collaboration (Association of Academic Health Centers)	http://wherehealthbegins.org/index.php	The toolkit can be used to bring together academic health centers with multiple other sectors, including employers, nonprofit organizations, government, public health, and foundations, to communicate, collaborate, and plan for the future.
Virginia Health Opportunity Index	https://www.vdh.virginia.gov/omh/he/hoi/	For the state of Virginia, this resource provides a dashboard and mapping tools for counties, legislative districts, and health districts. Metrics capture 13 indicators gleaned from a literature review that are organized into four profiles: community environment, consumer opportunity, economic opportunity, and wellness disparity.
Well-O-Meter	http://measureofamerica.org/well-o-meter/	This tool models individual-level human development based on a person's answers to questions. It is part of the Measure of America initiative.
What Works Cities (Bloomberg)	https://whatworkscities.bloomberg.org/	Launched in 2015, this resource enhances cities' use of data and evidence and provides a certification program that encourages data-driven, well-managed local government. The program is open to cities with a population of 30,000+ and provides support to local governments to "build the capacity and skills to use data and evidence to make more informed decisions, deliver more effective services and programs, and improve residents' lives."
What Works for Health	https://www.countyhealthrankings.org/take-action-to-improve-health/what-works-for-health	This free tool helps organizations find evidence-based policies and programs that address specific community needs across a wide range of domains, such as tobacco use, diet and exercise, housing, transit, education, and access to health care.

Resource Name	URL Links	Brief Description
Well Being In the Nation (WIN) Framework and Measures	https://www.winmeasures.org/statistics/winmeasures	This resource provides a list of core measures and leading indicators that fit a framework for measurement that successfully assesses, and can help improve, population health and well-being and be used across sectors. Measures are described and measure sources are identified.

Attachment D. List of Topics and Themes Included in the Report

Topic	Themes
Types of Initiatives	<ul style="list-style-type: none"> • Operated by an existing organization • Collaboration among organizations • Grassroots or coalition-style initiatives • Government-led initiatives • Whole community initiatives • Funded experiments
Initiative Aims	<ul style="list-style-type: none"> • To improve the health and well-being of people within a specific geographic area • To improve the health and well-being of specific groups of people defined by a personal attribute or characteristic • To fulfill a statutory requirement (federal or state) • To improve cross-sector planning and execution of services • To empower communities to address equity and improve health • To influence policy at a broad level
Sectors Involved	<ul style="list-style-type: none"> • Sectors commonly involved across initiatives: <ul style="list-style-type: none"> – Economic development – Education – Elected government and its executive agencies – Employers – Faith groups – Health – Housing – Human and social services – Nutrition – Public health – Transportation • Most initiatives involved many sectors rather than just a few.

Topic	Themes
Alignment	<ul style="list-style-type: none"> • Alignment that reflects shared purpose • Alignment that reflects shared data and metrics • Alignment that reflects shared involvement and/or action within the initiative • Alignment that reflects shared governance • Alignment that reflects shared financing, incentives, and accountability • Other factors that influence alignment <ul style="list-style-type: none"> – Champions – Sentinel events – Funding availability, costs, and feasibility – Terminology differences
Role and Use of Measurement	<ul style="list-style-type: none"> • Measures used to galvanize or sustain alignment • Measures used to set or monitor specific alignment goals or objectives • Measures used to build community action or advocate for policy change • Measures used for operational purposes • Measures used to achieve a holistic picture of a community • Measures that evaluate alignment itself • Challenges to shared measurement <ul style="list-style-type: none"> – Interoperability – Limiting definitions of measurement in some sectors – Lack of measures related to equity – Timeliness
Types of Measures Used	<ul style="list-style-type: none"> • Single-sector indicators • Cross-sector well-being indicators • Community health needs assessments • Success or impact measures • Cost measures • Large sets of measures versus small sets of key measures • Individual/community measures versus publicly available measures



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