FUNDERS FORUM
on Accountable Health

Developing a Framework To Measure the Health Equity Impact of Accountable Communities For Health

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Preface and Acknowledgements

On January 29, 2020, The Funders Forum on Accountable Health, with support from The Commonwealth Fund, held a convening to discuss and develop recommendations for measuring the health equity impact of Accountable Communities for Health (ACHs). This report summarizes the discussions from the convening, and proposes a new health equity assessment framework for ACHs that highlights the main pathways and opportunities to address health equity.

We thank everyone who participated in the convening, and the following foundations that support the Forum: Blue Shield of California Foundation, Episcopal Health Foundation, RCHN Community Health Foundation, Robert Wood Johnson Foundation, The California Endowment, The Commonwealth Fund, The Kresge Foundation, W.K. Kellogg Foundation, and The Blue Cross and Blue Shield of North Carolina Foundation.

INTRODUCTION

Within the context of health care delivery system reform, policymakers and providers are increasingly focused on health care quality improvement, particularly for low-income individuals, people of color, and other vulnerable populations. One critical attribute of high-quality care is coordination of clinical care with public health, social services, and behavioral health. Early evidence suggests that Accountable Communities for Health (ACH) models are an effective approach to providing integrated care. However, the models' effect on health equity (e.g., closing gaps in health outcomes) is uncertain. With support from The Commonwealth Fund, the Forum has developed a framework that would allow systematic assessment of the health equity impact of ACHs.

OVERVIEW OF ACCOUNTABLE COMMUNITIES FOR HEALTH MODEL

ACHs are multi-sector partnerships that seek to improve health outcomes by addressing social determinants of health (SDOH) and health-related social needs such as food security, housing, and transportation, among others.

ACH initiatives have been developed and implemented with both public and private funding support. One example of a privately funded ACH initiative is the *California Accountable Communities for Health Initiative (CACHI)*, which is supported by California health foundations. On the public side, the Center for Medicare and Medicaid Innovation (CMMI) at the Centers for Medicare and Medicaid Services (CMS) has invested nearly $150 million in the *Accountable Health Communities* model, which is being implemented in 29 sites across 22 states. As part of the rationale for this model, CMS stated that "unmet health-related social needs, such as food insecurity and inadequate or unstable housing, may increase the risk of developing chronic conditions, reduce an individual's ability to manage these conditions, increase health care costs, and lead to avoidable health care utilization." Earlier this year, CMMI launched a second accountable health model—*Integrated Care for Kids*.

Figure 1. Common Elements of ACHs

More than 100 ACHs exist across the nation, which also are referred to as "accountable care

communities," "coordinated care organizations," and "accountable health communities." These ACHs can be aligned with health care systems or public health systems or both. Regardless, the ACH models have a number of common elements, as shown in Figure 1.

To determine the effectiveness of the ACH model, the Forum developed and published an overarching assessment framework. The framework focused on understanding the "essential elements" of the ACH, namely which elements, and in what "dose," are central to the success of an ACH. Using this framework allows ACHs to measure their performance individually, but also allows evaluators to make comparisons across ACHs and determine which elements have the greatest impact on population health.

As the ACH model continues to evolve, one focus of the current framework has increased in priority—assessment of health equity. Specifically, stakeholders are seeking to better understand if and how an ACH affects the health of diverse and often disadvantaged individuals and their communities more broadly.

Given increasing awareness and investment in the ACH model, developing a framework and identifying potential metrics for evaluation of the model's health equity impact is important. To this end, the Forum has (1) supported a literature review on health equity frameworks and metrics; and (2) convened a technical advisory group (TAG) comprised of health equity experts, ACH implementers, and ACH evaluators. (A list of TAG members, some of whom are quoted throughout this report, can be found in Appendix A.) Three main questions have defined this project:

- What definition of health equity should be applied to the ACH model?
- What could a potential health equity assessment framework for ACHs look like?
- What types of measures could allow assessment of ACH health equity impact?

DEFINING HEALTH EQUITY FOR ACCOUNTABLE COMMUNITIES FOR HEALTH

The definition of health equity for ACHs is an important issue. Given the ACH mission and populations served, TAG participants noted that "racial equity" and social justice should be reflected in the chosen definition. One suggested option could be the World Health Organization's (WHO's) definition of health equity:

> "Equity is the absence of avoidable, unfair, or remediable differences among groups of people, whether those groups are defined socially, economically, demographically or geographically or by other means of stratification. 'Health equity' or 'equity in health'

implies that ideally everyone should have a fair opportunity to attain their full health potential and that no one should be disadvantaged from achieving this potential."

The TAG also commented that health equity is often conflated with social determinants of health, which often are narrowly defined only to include social needs and not the broader structural and systems-level drivers of inequities. Again, the WHO provides a helpful description of SDOH:

> "The social determinants of health are the conditions in which people are born, grow, work, live, and age, and the wider set of forces and systems shaping the conditions of daily life. These forces and systems include economic policies and systems, development agendas, social norms, social policies and political systems."

> *"We have an opportunity to create a vision for our country that recognizes health is a result of the systems and structures we have. For example, exposure to discrimination has a negative impact on mental and physical health. We have an opportunity to connect those dots. We need to connect the dots between SDOH, exposure to inequities, and health."*
>
> *–Gail Christopher, National Collaborative for Health Equity*

These definitions clarify that SDOH and health equity are not the same although they are connected. ACHs must address SDOH, as broadly defined by the WHO, to foster health and health equity in their communities.

HEALTH EQUITY ASSESSMENT FRAMEWORK

Theory of Change

A health equity assessment framework for ACHs is helpful to highlight the main pathways and opportunities for ACHs to address health equity, which is the desired long-term impact. One potential framework is pictured in Figure 2.

As a first step on the pathway to health equity, an ACH should integrate a health equity focus throughout its essential elements. Relevant actions would be primarily internal-facing; examples include review and revision of mission and vision statements to include health equity; development of inclusive recruitment policies and protocols; staff training on equity and cultural competency; and internal evaluation.

These internal activities would be complemented by external-facing functions, which would be two-fold: First, the ACH should engage with multisector partners and community-based organizations that are explicitly committed to addressing health equity to design and implement a

portfolio of interventions. This portfolio would tackle health and social need priorities, such as housing and food security, at the individual and community level. If deliberately designed with a health equity focus and appropriately targeted to high risk or high needs communities, these interventions can contribute to long-term health equity impact.

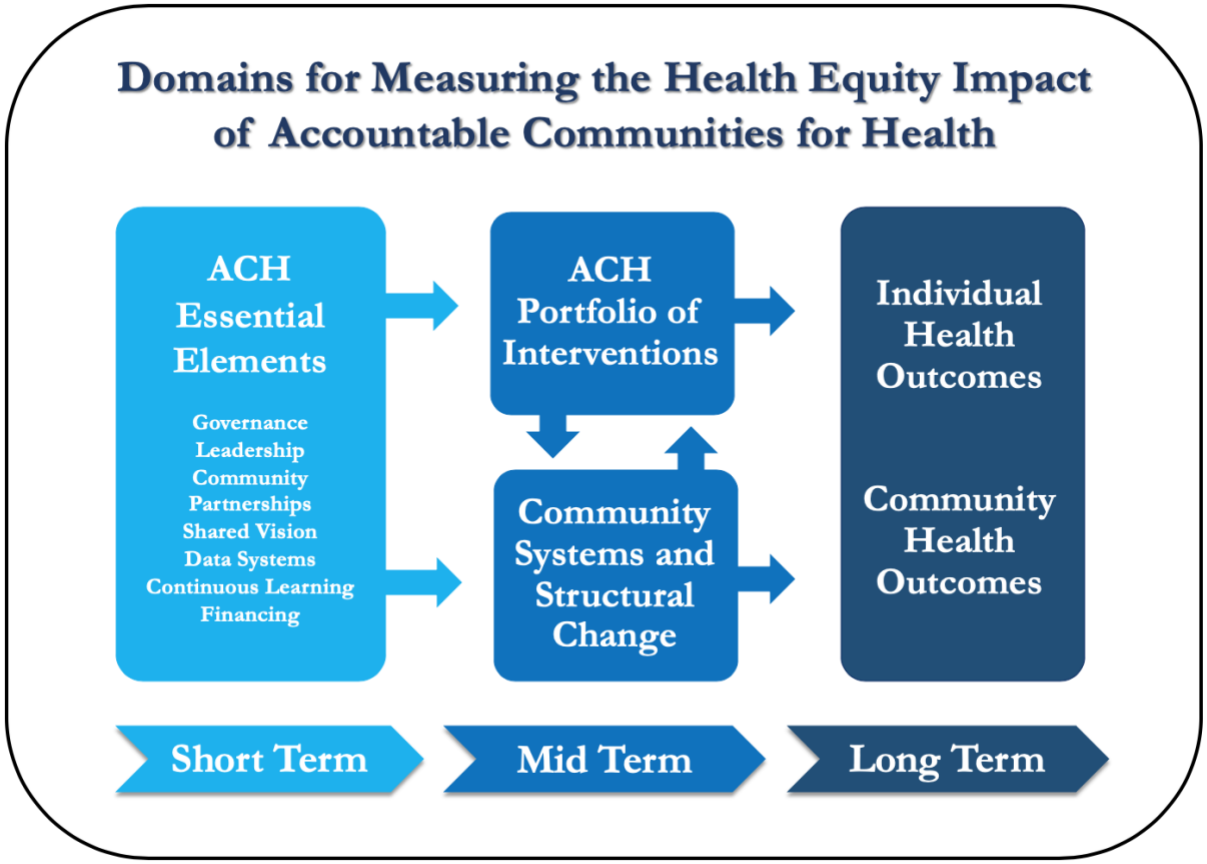

Figure 2. Health Equity Assessment Framework

Second, and on a parallel track, an ACH should seek to address, as WHO describes, the "avoidable, unfair, or remediable differences" in a community, including social, political, and environmental factors in play. These factors relate to systems and structural drivers of inequities in a community.

At a basic level, systems-related drivers of inequities can be defined as rules or decisions that lead to harmful policies, processes, or procedures. One example would be local decision-making processes or algorithms for allocating funding across geographic areas or community organizations that disadvantage certain groups. Structural drivers of inequities refer to the inequitable distribution of power, money, opportunity, and resources. Examples of structural drivers include an insufficient number of health providers, lower performing schools, and inadequate housing.

Both systems and structural changes can lead to disadvantages for certain population groups, particularly those based on race, ethnicity, gender or gender identity, class, and sexual orientation. In turn, these disadvantages can contribute to poor health outcomes for individuals and communities alike. ACHs can and should catalyze systems and structural change through mobilizing and supporting community advocacy, engaging policymakers, and influencing local decision-making and resource distribution.

Each of these external facing functions of the ACH, i.e. implementing a targeted portfolio of interventions and catalyzing systems and structural change, can independently lead to improvements in health equity in a community. However, these functions could have a synergistic effect when they occur in concert with one another. The portfolio of interventions can influence systems change through more engaged and mobilized communities that advocate for equitable policies and expanded "seats at the table." Systems and structural change, in turn, would provide a more supportive environment for ACHs to implement their portfolios, through more equitable funding allocations as one example. Over the long-term, the ACH supported portfolio of interventions and systems and structural change should lead to a greater and more sustained health equity impact for individuals and communities.

Discussed below are categories and questions that could be used for each component of this proposed framework. Because equity impacts can take a long time to achieve and document, these questions are divided by short-, mid-, and long-term outcome assessments. This approach connects longer-term outcomes to short- and mid-term actions, helping to maintain the engagement of partners and funders and creating opportunities for quality improvement (and redirection as necessary).

SHORT-TERM

Framework Questions to Assess Equity Impact of ACH Essential Elements

An ACH seeking to achieve health equity should start by integrating equity throughout its essential elements. Thus, an ACH should examine its own policies and programs to determine if and how health equity has been embedded throughout.

For *internal facing functions*, potential questions include the following:

- Do the ACH governance statements prioritize and explicitly address health equity?
- Is the leadership of the ACH diverse and inclusive? Is the leadership held accountable for fostering or achieving health equity?
- Is the ACH's data system capable of collecting data that would allow assessment of health equity (e.g. demographics, SDOH)?
- To what extent are data and metrics being used to promote continuous learning about the progress or unintended consequences of interventions intended to address health equity?

> *"ACH metrics do not only extend to their clients but also their own employees. We've turned down projects if, by participating, we would not be able to maintain the minimum requirements for our employees in regards to pay, schedule, and time-off."*
>
> *-Andrew Katz, Camden Coalition of Healthcare Providers*

For *external functions*, a critical issue is whether and the extent to which the ACH is engaging with other equity-focused organizations. An ACH cannot achieve equity on its own and must collaborate with others.

Effective community engagement has been studied extensively. Generally, such engagement can be characterized as leading to meaningful feedback and input from community residents that has been obtained in a variety of ways, including (1) surveys, interviews and focus groups; (2) community meetings/town halls; (3) public deliberation processes; and (4) co-design of services and programs. Further, effective engagement encourages and supports leadership opportunities, through training, shared decision-making, and capacity building, as well as financial and staff support.

Potential questions to assess the equity impact of ACH community engagement include the following:

- Has the ACH engaged diverse and/or marginalized groups within the community? How effective has been the community engagement? How are levels of trust, capacity building, and power dynamics changing?
- Has the ACH collaborated with the community to conduct a root cause analysis to determine causes of health inequities?
- Does the ACH's vision for health and wellbeing align with the vision of its community partners most affected by inequities?
- What are the financial relationships between the ACH and its partners representing or comprised of members from disadvantaged communities?

Examples of potential metrics from the National Standards for Culturally and Linguistically Appropriate Services (CLAS). For more metrics, see Appendix C.

Framing Question	CLAS Metric
Do the ACH governance statements prioritize and explicitly address health equity?	Incorporate CLAS into mission, vision, and/or strategic plans by determining how organization acknowledges and addresses concepts such as diversity, equity, inclusion, and practices such as asking individuals about preferences for care/services. (3.9)
Is the ACH's data system capable of collecting data that would allow assessment of health equity (e.g. demographics, SDOH)?	Collect race, ethnicity, and language (REAL) data (at a minimum) from all individuals receiving services (3.11a)

Organizational Stage of Implementation Checklist: Currently Implementing-Planning to Implement-Not Planning to Implement at This Time

MID-TERM

Framework Questions to Assess Equity Impact of ACH Portfolio of Interventions

ACH collaboration with multisector community partners to develop a shared vision and strategy to address health equity should be reflected in the design of the portfolio of interventions.

With particular focus on community partners at risk for or already experiencing health inequities, potential questions include the following:

- Has the ACH (1) informed community partners, (2) asked them to provide input, or (3) had them co-design and/or co-manage the portfolio of interventions?
- Does the portfolio reflect community needs and priorities that would allow achievement of health equity?
- How are the measures of health equity for an ACH's portfolio of interventions selected?
- How are health equity interventions regularly adjusted, started, and/or ended based on new data from multisector partners and community input?

> *"We have documented the social needs in our community and developed a set of interventions to address these needs at the individual and community level, as well as at the policy level."*
>
> *-Dodi Meyer, Columbia University Medical Center*

Examples of potential metrics from The 100 Million Healthier Lives SCALE initiative. For more metrics, see Appendix D.

Framing Question to Assess Equity of Portfolio	Potential SCALE Metric
Has the ACH (1) informed community partners, (2) asked them to provide input, or (3) had them co-design and/or co-manage the portfolio of interventions?	We use design approaches to create change with those who are most affected by the problems we seek to address. (Question 3)
How are health equity interventions regularly adjusted, started, and/or ended based on new data from multisector partners and community input?	We collect the data we need to know if we are reaching our goals. (Question 8) Community members have access to the community's data and use it to help us reflect and improve. (Question 9)

Assessment scale 0 (Not yet started) to 12 (Spreading and Scaling)

Framework Questions to Assess Equity Impact of ACH on Community Systems and Structural Change

Framing questions to assess how the ACH is engaging to change systems and structural drivers of inequities are critical to measure the health equity impact of the ACH.

For ACHs engaged in systems and structural change, potential questions include the following:

- Is the ACH and its partners, including local government, community-based organizations, health systems, and private sector entities (business, banking, academic medical centers, etc.) aligning around a vision for health equity at the systems level?
- How is the community changing? How has the power dynamic shifted among community partners? How are relationships and spheres of influence changing?
- How is the scale and capacity of providers serving disadvantaged groups, especially lesser-resourced social service providers, changing?
- How are local officials making resource allocation decisions? Are allocations equitably meeting the needs of disadvantaged populations?
- How are systems-level policies (e.g., legislative proposals) relevant to health equity changing? How are the policies diffusing throughout the affected communities?
- Is the ACH leading or involved in efforts to address racism and discriminatory treatment?

> *"Is the question whether something has changed in the way the community is coming together? Has the conversation changed? If there is a problem in the community, can it get solved?*
>
> *– Karen Linkins, Desert Vista Consulting*

Examples of potential metrics from The 100 Million Healthier Lives SCALE initiative. For more metrics, see Appendix D.

Framing Question to Assess Systems and Structural Change	Potential SCALE Metric
Is the ACH and its partners aligning around a vision for health equity at the systems level?	We have a common vision for our community that everyone is working toward. (Question 2)
How are local officials making resource allocation decisions? Are allocations equitably meeting the needs of disadvantaged populations?	Our collaboration has the relationships and trust needed to share resources and accountability. (Question 28)
How is the community changing? How has the power dynamic shifted in communities? How are relationships and spheres of influence changing?	Power is distributed and shared. (Question 35)

Assessment Scale 0 (Not yet started) to 12 (Spreading and Scaling)

LONG-TERM

Framework Questions to Assess Equity of Individual and Community Health Outcomes

In the long-term, the ACH impact on health equity could be measured in a number of ways. One set of outcomes will result from implementation of the portfolio of interventions. The actual interventions will dictate the measures needed, and for many interventions, there is a significant body of literature from which such measures can be selected. An ACH should stratify outcomes by relevant demographic variables (race, ethnicity, etc.) to assess for health equity, and select metrics that correlate with improved health outcomes.

In addition to absolute, stratified outcomes, potential questions to assess the equity of the portfolio of interventions in the long-term include the following:

- Are the health improvements at the individual and community level equitably distributed?
- Which partners have been involved and how?
- Are these health improvements sustainable? If so, why?

Historically, developing measures for systems and structural change has received less attention. However, such change is critically important for long-term and sustainable health equity impact. Potential questions could be the following:

- How have the self-reported health status and perceptions of wellbeing of community residents, including those from disadvantaged groups, changed over time?
- Have people's capacity to relate to one another improved at an individual and organizational level? Have levels of compassion increased?

- Are partnerships equitably benefiting all populations (e.g. addressing SDOH or health-related social needs) or perpetuating inequities?
- Has the vision for the community changed to reflect an understanding of the connection between health and structural and systems level drivers of inequities?
- Has racial hierarchy decreased? Have levels of racism and separation decreased?
- Has something changed about the way people, particularly from disadvantaged groups, feel about what is possible? Do people feel empowered?
- What policy, systems, and environmental changes have taken place?
- Are there more equitable financial allocations in the community?
- Are other sectors engaged and accountable for equity?

"If the ACH is a health care system, there may be additional questions that could be asked. Hospitals and health care systems are often big employers with significant influence on policymakers, and therefore have the power to create upstream changes. Metrics might include what the health system is doing to catalyze a community conversation about systemic racism, for example."

-Steven Woolf, VCU Center on Society and Health

Example of potential metrics that could be tailored to assess the equity impact of ACH health outcomes. For more metrics, see Appendix E.

Framing Question	Resources/Examples of Potential Metrics
What are the health equity outcomes?	Virginia Health Opportunity Index: The Consumer Opportunity Profile County Health Rankings
Has racial hierarchy decreased? Have levels of racism and separation decreased?	Virginia Health Opportunity Index: Segregation Indicator Behavioral Risk Factor Surveillance System: Percentage adults reporting racial discrimination in past 12 months
What policy, systems, and environmental changes have taken place?	City University of New York Institute for State and Local Governance: Political Power/Race and Gender and Representation in Government
Are other sectors engaged and accountable for equity?	RWJF Culture of Health Measures: Fostering Cross-Sector Collaboration: Number and Quality of Partnerships: Annual percentage of hospitals that have alliance with health, social services, or CBOs.

CHOOSING HEALTH EQUITY METRICS

Based on the Forum's literature review and TAG convening, there are numerous potential health equity metrics (see Appendix B). (Additional examples of metrics for the framing questions across each domain can be found in appendices C through D.) The choice of metrics, however, will depend on a number of considerations that will vary by ACHs as described below:

Purpose of Metrics

As an overarching consideration, the selection of any health equity metric(s) should be driven by purpose. ACHs should think beyond using metrics for evaluation only; metrics could be selected and implemented for multiple reasons:

- galvanizing action in the policy or program arena
- facilitating learning about community needs or priorities
- making value statements
- clarifying the roles of the ACH and its partners
- promoting accountability
- informing funding allocation decisions
- "making the case" for sustainability

> *"For us, developing metrics was an opportunity to make a statement. They identify issues we believe are important to pay attention to. We agree these metrics may change over time because they reflect the values you want to see moving forward."*
>
> *-Ana Novais, Rhode Island Department of Health*

Volume of Metrics

A second consideration relates to the number of metrics intended to be used by an ACH to assess health equity. Parsimony is important, both to increase feasibility and reduce administrative burden. However, single metrics should be avoided as they may not fully capture ACH progress or inform the path forward. Instead, multiple measures should be selected that allow assessment of various dimensions of health equity, are responsive to community priorities, and can be used to drive action by multiple groups and organizations (such as social service providers, payors, and hospitals).

A health equity "summary score" or composite could be one possibility to minimize the volume of measures reported, while still allowing evaluators to determine which measure(s) are driving the overall score. Additionally, cross-sector metrics are ideal. For example, Cincinnati Children's Hospital has selected reading at the third-grade level as a health equity measure. Cross-sector metrics offer the additional benefit of facilitating focus upstream.

> *"We need to encourage cross-sector equity awareness."*
>
> *– Pat Mathews, Northern Virginia Health Foundation*

For ACHs that are hospitals or health systems, alignment of health equity measures with more traditional health care measures could help to streamline the number of measures as well, and

reduce the associated administrative burden. HEDIS and value-based payment metrics, stratified by demographics, could help to measure accountability or outcomes, for example. Other more infrastructure-related measures, such as the number of community health workers employed, also could help to leverage financial negotiations for addressing social needs.

Data Systems and Management

A third consideration for choosing health equity metrics relates to the need for robust data for both individuals and communities at a granular level. Further, ACHs must have the ability to link such data across clinical and social services and sites of care in order to fully assess risk, utilization, outcomes, and impact. Importantly, in order to evaluate health equity, ACH data should allow comparison to control populations, which could be challenging without population-based data.

Notably, some of the traditionally-used datasets and algorithms have not incorporated a focus on health equity. Thus, it may be necessary for ACHs to stratify outcomes data by race/ethnicity, gender, socioeconomic status, and primary language, as well as other demographic variables; quantitative and qualitative data analyses may require an intersectional approach. Comparisons should not be made to the average but to the best possible outcomes, in order to fully capture the magnitude of any disparities and highlight opportunities for improvement.

Finally, data by itself does not move policy, unlike stories which frequently do. Data should be translatable into real world narratives that evoke concern and compel action, as needed. In addition, benchmarking, or explaining data in terms of "distance to go" to reach a desired outcome, is a helpful and complementary approach.

Time Horizon

Just as the proposed framework focuses on short-, mid-, and long-term outcomes, metrics are needed across the short, mid, and long-term horizon as well. Although long-term health equity impact is the desired outcome, each of the short- and mid-term impacts are important in their own right, and these process measures should be considered outcome measures as well.

Audience

Metrics of success must resonate and be understood across a variety of audiences and stakeholder groups. Critically, selected health equity measures must allow assessment of racial equity and social justice. As one example, The California

> *"We need to be explicit on racial equity and structural issues. We need to shine a light on the need for systems change."*
>
> *-Marion Standish, The California Endowment*

Endowment is exploring metrics relating to school suspensions, which can reflect systemic racism in many communities.

CONCLUSION

A health equity assessment framework for ACHs is helpful to highlight the main pathways and opportunities for ACHs to address health equity, which is the desired long-term impact. The proposed framework and questions would allow assessment of ACH impact on health equity, with focus on individual, community, and systems and structural changes over time. These changes could occur independently although synergistic changes could amplify the overall impact.

Although an important first step, we acknowledge this framework will need to be tested and refined by ACHs on the ground. Further, there is a critical need for research to determine which health equity metrics are the most important for the ACH model overall and for specific interventions. New metrics may be needed, especially in the systems and structural change domain.

Moving from "what" to measure to "how" to measure will similarly require study. In particular, with competing initiatives potentially underway in many communities, an important methodological concern is attribution and contribution. Many ACHs will need technical assistance on this and other issues, and funders have an important role "to help people move further along faster." Further, funders should explicitly require ACHs to prioritize focus on health equity, and provide adequate resources to support such work.

Perhaps most important, there should be consideration of whether this framework could be integrated with other assessment frameworks for ACH models, in order to maximize use and usefulness.

The ACH model is seeking to fundamentally transform health and wellbeing in this nation. A prioritized focus on health equity is critical for ACH success and sustainable impact.

Appendix A. Funders Forum Health Equity Convening: Meeting Participants

Last Name	First Name	Organization
Anise	Ayodola	National Academy of Medicine
Brunton	Caroline	W. K. Kellogg Foundation
Cantor	Jeremy	John Snow Inc.
Chin	Marshall	University of Chicago
Christopher	Gail	National Collaborative for Health Equity
Friedman	Rivka	CMMI, CMS
Fukuzawa	David	The Kresge Foundation
Geevarghese	Salin	Center for the Study of Social Policy
Gracia	Nadine	Trust for America's Health
Heinrich	Janet	George Washington University
Heishman	Hilary	Robert Wood Johnson Foundation
Hinton	Michelle	Alliance for Strong Families and Communities
Hughes	Dora	George Washington University
James	Cara	Office of Minority Health, CMS
Katz	Andrew	Camden Coalition of Healthcare Providers
King	Anne	Oregon Health & Science University
Levi	Jeffrey	George Washington University
Lillie-Blanton	Marsha	George Washington University
Linkins	Karen	Desert Vista Consulting
Mathews	Pat	Northern Virginia Health Foundation
Meyer	Dodi	Columbia University Medical Center
Midura	Bonnie	The California Endowment
Mittmann	Helen	George Washington University
Novais	Ana	Rhode Island Department of Health
O'Connor	Shannon	CMMI, CMS
Orr	Jacquelynn	Robert Wood Johnson Foundation
Penman-Aguilar	Ana	Office of Minority Health, CDC
Ponce	Ninez	UCLA Fielding School of Public Health
Rowe	Audrey	Formerly with Food and Nutrition Service, USDA
Sayed	Bisma	Research and Rapid Cycle Evaluations Group, CMS
Scholle	Sarah	National Committee for Quality Assurance
Shah	Tanya	The Commonwealth Fund
Sim	Shao-Chee	Episcopal Health Foundation
Standish	Marion	The California Endowment
Thomason	Richard	Blue Shield of California Foundation
Wilson	Brandon	CMMI, CMS
Woolf	Steve	VCU Center on Society and Health
Zephyrin	Laurie	The Commonwealth Fund

Appendix B. Potential Metrics and Frames for Evaluating ACH Health Equity Impact

The George Washington University's Funders Forum on Accountable Health, with support from The Commonwealth Fund, conducted a literature review in December 2019 on health equity measures and data sources that potentially could be used to evaluate the health equity impact of ACH initiatives.

The review was guided by the following questions: 1) what health equity metrics currently exist, and 2) which of these health equity metrics could ACH-type initiatives potentially use to evaluate their health equity impact? The titles and abstracts of search results published between January 2009 and December 2019 were screened for relevance. To be included in this review, resources had to 1) have a United States focus, and 2) explicitly identify or discuss health equity metrics and measurement. Peer-reviewed literature, gray literature, and measurement tools that met the selection criteria were reviewed in full.

Of the resources reviewed, 36 met the inclusion criteria and were analyzed. The resources encompassed a broad array of health equity metrics relating to clinical conditions, social determinants of health, cultural competence, and patient engagement, as well as a number of useful "framing" reports.

Author	Title	Source
Philanthropic and Privately Supported Initiatives		
AARP Public Policy Institute (2018)	AARP Liveability Index	https://livabilityindex.aarp.org
The Prevention Institute (2015)	Measuring What Works to Achieve Health Equity: Metrics for the Determinants of Health.	https://www.preventioninstitute.org/sites/default/files/publications/Measuring%20What%20Works%20to%20Achieve%20Health%20Equity%20_Full_Report.pdf
NeighborWorks America (2017)	Measuring Health Outcomes: Success Measures Evaluation Tools for Community Development and Health.	https://successmeasures.org/sites/all/files/HealthPubTool_111917.pdf
National Collaborative for Health Equity (2018)	The Health Opportunity and Equity (HOPE) Initiative	https://www.nationalcollaborative.org/our-programs/hope-initiative-project
PolicyMap	PolicyMap	https://www.policymap.com/
Robert Wood Johnson Foundation (2019)	Culture of Health Measures Compendium - Measures Update 2019.	http://www.cultureofhealth.org/
University of Wisconsin Population Health Institute (2019)	County Health Rankings & Roadmaps	https://www.countyhealthrankings.org/
Academic Sources		
Corburn J, Cohen AK (2012). PLos Med.	Why we need urban health equity indicators: Integrating science, policy, and community.	https://journals.plos.org/plosmedicine/article?id=10.1371/journal.pmed.1001285

Elias RR, Jutte DP, Moore A (2019). SSM-Population Health	Exploring consensus across sectors for measuring the social determinants of health.	https://www.ncbi.nlm.nih.gov/pubmed/31049390
National Academies of Sciences, Engineering, and Medicine (2019)	Vibrant and Healthy Kids: Aligning Science, Practice, and Policy to Advance Health Equity	https://www.nap.edu/read/25466/chapter/1
National Academies of Sciences, Engineering, and Medicine (2017)	Communities in action: Pathways to health equity	https://www.nap.edu/catalog/24624/communities-in-action-pathways-to-health-equity
National Academies of Sciences, Engineering, and Medicine (2016)	Metrics that matter for population health action: Workshop summary.	https://www.nap.edu/catalog/21899/metrics-that-matter-for-population-health-action-workshop-summary
PolicyLink and Program for Environmental and Regional Equity (2018)	National Equity Atlas	https://nationalequityatlas.org/
Sadler RC, Hippensteel C, Nelson V, et al (2019). Social Science & Medicine	Community-engaged development of a GIS-based healthfulness index to shape health equity solutions	https://www.ncbi.nlm.nih.gov/pubmed/30037592
Zimmerman FJ (2019). Public Health	A robust health equity metric.	https://www.ncbi.nlm.nih.gov/pubmed/31404717
Zimmerman FJ, Anderson NW (2018). JAMA Netw Open	Trends in Health Equity in the United States by Race/Ethnicity, Sex, and Income, 1993-2017	https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2736934
Federally Supported Initiatives		
Association of Maternal & Child Health Programs (2013)	Life Course Indicators Metrics Project and Online Tool.	http://www.amchp.org/programsandtopics/data-assessment/Pages/LifeCourseMetricsProject.aspx
Centers for Disease Control and Prevention - Division of Community Health (2013)	A Practitioner's Guide for Advancing Health Equity: Community Strategies for Preventing Chronic Disease.	https://www.cdc.gov/nccdphp/dch/pdf/FoundationalSkills.pdf
Centers for Disease Control and Prevention (from 2011)	Health Disparities and Strategies Reports.	https://www.cdc.gov/minorityhealth/chdir/index.html
National Quality Forum (2017)	A Roadmap for Promoting Health Equity and Eliminating Disparities: The Four I's for Health Equity	https://www.qualityforum.org/Publications/2017/09/A_Roadmap_for_Promoting_Health_Equity_and_Eliminating_Disparities__The_Four_I_s_for_Health_Equity.aspx
Penman-Aguilar A et al (2016). J Public Health Manag Pract	Measurement of Health Disparities, Health Inequities, and Social Determinants of Health to Support the Advancement of Health Equity	https://www.ncbi.nlm.nih.gov/pubmed/26599027
Facilitated by 100 Million Healthier Lives with the National Committee on Vital and Health Statistics; 2019	Well-being in the Nation (WIN) Measurement Framework: Measures for Improving Health, Well-being, and Equity Across Sectors	https://www.winmeasures.org/statistics/winmeasures

State Supported Initiatives		
King County, WA: King County Office of Performance, Strategy and Budget; 2015	The Determinants of Equity: Identifying Indicators to Establish a Baseline of Equity in King County	https://www.kingcounty.gov/~/media/elected/executive/equity-social-justice/2015/The_Determinants_of_Equity_Report.ashx
California Department of Public Health's Office of Health Equity (2012)	Healthy Communities Data and Indicators Project.	https://www.cdph.ca.gov/Programs/OHE/Pages/HCI-Search.aspx
California Office of Environmental Health Hazard Assessment; 2016	CalEnviroScreen 3.0.	https://oehha.ca.gov/calenviroscreen/report/calenviroscreen-30
Connecticut Association of Directors of Health (2009)	Health Equity Index	https://www.sdoh.org/
Connecticut State Health Improvement Coalition	Healthy Connecticut 2020 Performance Dashboard. Connecticut Public Health Data Explorer	https://stateofhealth.ct.gov/HCT2020/HCT2020Index
Cuny Institute for State & Local Governance.	Equity Indicators	http://equalityindicators.org/
HealtheConnections and Conduent Community Health Solutions	HealtheCNY Health Equity Dashboard. Syracuse, NY: HealtheConnections.	http://www.healthecny.org/index.php?module=indicators&controller=index&action=dashboard&alias=HealthEquity
Seattle Foundation and King County government	King County's Communities of Opportunity	https://www.coopartnerships.org/
Maine Center for Disease Control and Prevention; 2016	Using Data to Promote Health Equity - Maine 2016.	https://www.maine.gov/dhhs/mecdc/documents/Health-Equity-Report_Final_3.20.17.pdf
Live Well San Diego; 2019	Live Well San Diego Annual Impact Report 2018-2019	http://www.livewellsd.org/content/livewell/home/about/annual-report.html
Public Health Alliance of Southern California and Virginia Commonwealth University's Center on Society and Health (2015)	The California Healthy Places Index (HPI).	https://healthyplacesindex.org/
Rhode Island Department of Health Community Health Assessment Group	Rhode Island's Statewide Health Equity Indicators.	https://health.ri.gov/data/healthequity/
Tacoma - Pierce County Health Department (2016)	Fairness Across Places? Your Health in Pierce County - 2015 Health Equity Assessment.	https://www.tpchd.org/home/showdocument?id=196
Virginia Department of Health's Office of Minority Health and Health Equity (2012)	Virginia Health Opportunity Index	https://www.vdh.virginia.gov/omhhe/hoi/

*The full literature review will be submitted for publication.

Appendix C: Potential Health Equity Metrics to Assess Equity of ACH Essential Elements

Developed by the Department of Health and Human Services' Office of Minority Health, the National Standards for Culturally and Linguistically Appropriate Services (CLAS) for Health and Healthcare checklist could be adapted and used to assess the equity of ACH Essential Elements. The CLAS Standards act as a blueprint for individuals, health, and health care organizations to implement culturally and linguistically appropriate services, in order to reduce health disparities and achieve health equity.

Framing Question to Assess ACHs	Potential CLAS Metrics
Do the ACH governance statements prioritize and explicitly address health equity?	Incorporate CLAS into mission, vision, and/or strategic plans by determining how organization acknowledges and addresses concepts such as diversity, equity, inclusion, and practices such as asking individuals about preferences for care/services. (3.9)
Is the leadership of the ACH diverse and inclusive? Is the leadership held accountable for fostering or achieving health equity?	• Create and implement a formal CLAS implementation plan that is (at a minimum) endorsed and supported by the organization's leadership, that describes how each Standard is understood, how each Standard will be implemented and assessed, and who in the organization is responsible for overseeing implementation. (1.2b) • Target recruitment efforts to the populations served to increase the recruitment of culturally and linguistically diverse individuals (1.3a) • Incorporate assessment of CLAS competencies (e.g., bilingual communication, cross-cultural communication, cultural and linguistic knowledge) on an ongoing basis into staff performance ratings. (1.4c)
Is the ACH's data system capable of collecting data that would allow assessment of health equity (e.g. demographics, SDOH)?	Collect race, ethnicity, and language (REAL) data (at a minimum) from all individuals receiving services (3.11a)

To what extent are data and metrics being used to promote continuous learning about the progress or unintended consequences of interventions intended to address health equity?	Use REAL data to identify needs, describe current care and service provision trends, and improve care and service provision. (3.11b)
Has the ACH engaged diverse and/or marginalized groups within the community?	Include community members in the process of planning programs and developing policies to ensure cultural and linguistic appropriateness by convening town hall meetings, conducting focus groups, and/or creating community advisory groups. (3.13)
Has the ACH collaborated with the community to conduct a root cause analysis to determine cause of health inequities?	Collaborate with stakeholders and community members in community health needs assessment data collection, analysis, and reporting efforts to increase data reliability and validity. (3.19)
Has the ACH collaborated with the community to develop a shared vision?	Partner with community organizations to lead discussions about the services provided and progress made and to create advisory boards on issues affecting diverse populations and how best to serve and reach them. (3.15)

Organizational Stage of Implementation Checklist: Currently Implementing-Planning to Implement-Not Planning to Implement At This Time

ReThink Health's Amplifying Stewardship Together project is an initiative of The Rippel Foundation. Stewards are people and organizations that take action to enable all people to prosper and reach their full potential.

Framing Question to Assess ACHs	Potential Stewardship Metrics
Is the ACH and its partners aligning around a vision for health equity at the systems level?	• Commitment to Shared Vision and Values • Stewards' Commitment Relative to Vested Interests • Common Measures and Data Synthesis; Learning and Knowledge Sharing

How are local officials making resource allocation decisions? Are allocations equitably meeting the needs of disadvantaged populations?	• Financial Plan, Including for Integrative Activities • Financial Sustainability

Stewardship Maturity Phases: Coming Together-Exploring Regional Goals-Building an Interdependent Portfolio-Making the Portfolio Happen-Living the New Ecosystem

Appendix D. Potential Health Equity Metrics to Assess ACH Portfolio of Interventions and Systems and Structural Change

The 100 Million Healthier Lives' Spreading Community Accelerators through Learning and Evaluation (SCALE) initiative could be useful in assessing the health equity impact of the ACH's portfolio of interventions and efforts to effect systems and structural change. This initiative was a capacity-building effort designed to help selected communities develop skills and strategies to create a Culture of Health that promotes health, well-being and equity. (These metrics are not publically available.)

Framing Question	Potential SCALE Metric
Has the ACH (1) informed community partners, (2) asked them to provide input, or (3) had them co-design and/or co-manage the portfolio of interventions? Does the portfolio reflect community needs and priorities that would allow achievement of health equity?	We use design approaches to create change with those who are most affected by the problems we seek to address. (Question 3)
How are the measures of health equity for an ACH's portfolio of interventions selected?	Our collaboration values measurement. We have developed a set of measures related to what we believe needs to change to create improvement. (Question 7)
How are health equity interventions regularly adjusted, started, and/or ended based on new data from multisector partners and community input?	We collect the data we need to know whether we are reaching our goals. (Question 8) Community members have access to the community's data and use it to help us reflect and improve. (Question 9)
Is the ACH and its partners aligning around a vision for health equity at the systems level?	We have a common vision for our community that everyone is working toward. (Question 2)
How are local officials making resource allocation decisions? Are allocations equitably meeting the needs of disadvantaged populations?	Our collaboration has the relationships and trust needed to share resources and accountability. (Question 28)
How is the community changing? How has the power dynamic shifted in	Power is distributed and shared. (Question 35)

communities? How are relationships and spheres of influence changing?	
How is the scale and capacity of providers serving disadvantaged groups, especially lesser-resourced social service providers, changing?	The coalition plans to spread and scale up a set of programs (portfolio) that would achieve lasting impact from the beginning. (Question 13)
How are resource allocation decisions being made? Are allocations equitably meeting the needs of disadvantaged populations?	We understand the system of our community and use it to design and create change. (Question 4)
How are policies (e.g. legislative proposals) relevant to health equity changing? How are the policies diffusing throughout the affected communities?	There is a shared commitment to health, wellbeing, and equity across our community. (Question 23)
Is the ACH leading or involved in efforts to address racism and discriminatory treatment?	

Assessment Scale 0 (Not yet started) to 12 (Spreading and Scaling)

Appendix E. Potential Health Equity Metrics to Assess ACH Outcomes

This project's health equity literature review identified numerous metrics (with the exception of the compassion assessment scales) that could be used or tailored to assess the equity of ACH health outcomes.

Framing Question	Resources/Examples of Potential Metrics
Are the health improvements at the individual and community level equitably distributed?	• Virginia Health Opportunity Index: The Consumer Opportunity Profile: Affordability Indicator, Education Indicator, Food Accessibility Indicator, Material Deprivation Indicator • County Health Rankings and Roadmaps
How has the self-reported health status and perceptions of wellbeing of community residents, including those from disadvantaged groups, changed over time?	• HealthPartners/IHI's 100 Million Healthier Lives Campaign's "Well-being adjusted life years" • Social Support (Communities Count Residential Survey) • Neighborhood Social Cohesion (Communities Count Residential Survey)
Have people's capacity to relate to one another improved at an individual and organizational level? Has compassion increased?	• Sprecher and Fehr's Compassionate Love Scale • Santa Clara Brief Compassion Scale • Self-Compassion Scale • Compassionate Care Assessment Tool
Are partnerships equitably benefiting all populations or perpetuating inequities?	• Race and Health Insurance (Current Population Survey Annual Social and Economic Supplement) • Percentage of Households Paying Over 30% of Income for Rent or Mortgages (American Community Survey (ACS)) • Transportation. Mode of Transportation and Commute Time (ACS) • Food Insecurity Rate (Feeding America) • Income Inequality Indicator (Gini Index)
Has racial hierarchy decreased? Have levels of racism and separation decreased?	• Segregation Indicator (Virginia Health Opportunity Index) • Percentage of adults reporting racial discrimination in healthcare settings in the past 12 months (Behavioral Risk Factor Surveillance System)

Has something changed about the way people feel, or that things feel possible? Do people feel empowered?	RWJF Culture of Health: Making Health a Shared Value Action Area • Mindset and Expectations: Percent adults report health influenced by peers. • Sense of Community: Sense of Community Index; Percent adults who do not prioritize investments in key areas. • Civic Engagement: Voting; Volunteerism.
What policy, systems, and environmental changes have taken place? Are allocations equitably meeting the needs of disadvantaged populations?	CUNY Institute for State and Local Governance: Justice Domain • Fairness of the Justice System/Race & Trust in Police • Political Power/ Race and Gender and Representation in Government • Civic Engagement/Race and Voter Turnout; Location and Participatory Budgeting
Are other sectors engaged and accountable for equity?	RWJF Culture of Health Measures: Fostering Cross-Sector Collaboration Action Area • Number and Quality of Partnerships: Annual Percentage of hospitals that have alliance with health, social services, or CBOs. • Investment in Cross-Sector Collaboration: U.S. corporate contribution to education and community/economic development sectors. • Policies that Support Collaboration: Mean community policing index score. Percent Families eligible for FMLA.