

Building a Foundation for a Business and Health **Accountability Dashboard**

The Viability of an Accountability Dashboard to Inspire Collaboration and Action Between Businesses and Public Health

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EXECUTIVE SUMMARY

The business community has long held the notion that "what gets measured gets managed." Our hypothesis was that having a readily accessible and practical Business and Public Health Accountability Dashboard (hereinafter, B&H Dashboard) would lead to business and public health improvements in any given community and therefore produce meaningful public health and business impact. The question was, do such B&H Dashboards exist? If not, what would it take to create one that would spur action and establish accountability by continually monitoring progress, or lack thereof, on proposed solutions instituted through agreements by business and public health leaders?

To answer this question, we conducted a scan of the marketplace and held discussions with industry leaders in both business and public health. We found close to two dozen established B&H Dashboard tools and resources available to business and public health audiences. We concluded that it was unnecessary and even wasteful to build yet another B&H Dashboard. Each of these resources contained many elements of interest to both business and public health communities in terms of health and economic metrics and functionality. Among these tools and resources, there were three B&H Dashboards that were particularly outstanding. They are:

- Health Equity Report Card developed by Salud America! at UT Health San Antonio;
- 2) THRIVE Scorecard created by the Michigan Health Improvement Alliance in Michigan; and
- 3) <u>Kansas Health Matters</u> established by the Kansas Partnership for Improving Community Health.

These three tools are interactive, tailorable, and have easy-to-use trackers that allow business and public health executives to take the pulse of their community's health. Moreover, these dashboards offer the ability to conduct benchmarking and comparison studies across county, state, and/or national populations.

However, there is little known about how these tools are being used today and whether they, in fact, achieve business and public health impacts. What is needed now is a "deep dive" evaluation of these three promising dashboard initiatives. This would create a better understanding of the usage and value of B&H Dashboards, facilitate improvements, and ultimately help promote increased business engagement in support of improving public health in many more communities.

It is our expectation that partnerships across these diverse and historically independent groups will result in significantly more positive outcomes than either group could achieve on its own.

INTRODUCTION

At the height of the COVID-19 pandemic, when the nation was experiencing the overlapping, crippling effects on our health, economic, and social wellbeing, the Institute for Health and Productivity Studies (IHPS) at the Johns Hopkins Bloomberg School of Public Health, supported by the de Beaumont Foundation, produced a report titled: Seven Ways Businesses Can Align with Public Health for Bold Action and Innovation. The report put forth practical advice to the business community on ways it can support a rebuilding of a robust public health infrastructure in the U.S. in the aftermath of the COVID-19 pandemic. Over the past two years, the business community has been made more aware the role public health plays in maintaining a vibrant and flourishing economy. As physical, mental, and financial stressors have taken their toll on American workers, business owners have struggled to recruit experienced workers for their enterprises and keep those workers on the job.

Among the seven recommendations for business owners included in the "Seven Ways..." report was the following: Advocate for development of accountability dashboards that track and monitor progress toward achieving key economic and public health outcomes in a community.

The rationale for this recommendation was as follows. For any initiative to be successful, accountability and metrics are key. As the age-old adage reminds us, "If it isn't measured, it won't be managed." This maxim holds for both business and public health leaders.

Organizational executives are often wary of supporting government programs—even public health initiatives—that draw upon tax dollars without a concomitant pledge to track how the money is spent and whether desired outcomes are achieved. Similarly, public health officials are wary of funding programs that do not produce population health improvements that are trackable either locally or nationally. Working together, business and public health leaders can examine data that are relevant to their constituents, and by doing so, gain new insights and learnings from the data that lead to actions that advance the goals of both sets of stakeholders.

With the support of the CDC Foundation, we examined the landscape for business and public health dashboards and uncovered a number of these, already in place, that were easy to navigate and useful in several important ways. These dashboards provided baseline and comparative data on key metrics needed in establishing a business case for programs or policy actions. They were also vital in tracking progress in achieving those outcomes.

This report offers the reader insights on how the expansion of B&H Dashboards can further the aims of both business and public health communities locally and across the U.S.



PROJECT OVERVIEW

As COVID-19 transitions from pandemic to endemic in the U.S., it has become clear to all aspects of society that the U.S. needs not just a COVID-19 recovery plan, but a more comprehensive preparedness and resilience plan built upon accountability and metrics. With the support of the CDC Foundation, we embarked on a project to explore the range of existing B&H Dashboards and determine whether a new one was needed that would improve upon existing tools. The initial aim of the project was to develop a new accountability dashboard that could be used to inspire collaboration and action-taking across business and public health communities at the local level. More specifically, we sought to:

- 1) Examine the landscape of existing dashboards/rankings/databases;
- 2) Leverage the expertise of business and public health stakeholders regarding their appetite and desire for such dashboards;
- 3) Identify relevant metrics to be included in dashboards; and
- 4) Develop a prototype dashboard based on the findings.

What we found were several impressive existing dashboards that could potentially be leveraged and scaled to identify community needs and to document improvements in public health and economic measures. Below, we present our project findings along with recommended next steps.

Methods

Literature Review

We conducted a literature review examining the current landscape of dashboards that track community and business health. Resources for review were identified by drawing on the combined experience and knowledge of IHPS team members and its partners.

The intent was to identify indicators of community and business health, their definitions, and how they are measured. The data source and data accessibility of each metric was documented. In addition to reviewing dashboards, rankings, and tools, we examined seven published frameworks to further organize themes and common metrics.

Drawing from the existing dashboards, we compiled a "master list" of dimensions of community and business health, each comprised of multiple indicators. This substantial starting point, resulting in more than 60 metrics, served to guide our thinking and the discussions to be held with focus group members.

Focus Groups

In the fall of 2021, we convened several meetings with subject matter experts (SMEs) from the fields of business and public health to discuss their initial thoughts and ideas on building the proposed accountability dashboard. Focus group participants were identified by way of joint contributions of the IHPS and the CDC Foundation. An effort was made to recruit an even number of public health and business representatives.

Thirty leaders in public and business health volunteered to participate in individual interviews or focus group discussions. (See Appendix A for the participant list.) Background to the project was provided as part of the invitation. Meeting invitations contained information on the project goals and requested that individuals review existing dashboards as well as organize and synthesize their thinking prior to entering the focus group sessions. In focus group conversations, which were conducted virtually, participants were asked to offer their thoughts on the proposed dashboard as well as recommendations for metrics they thought should be included in such a tool, based on their experience in the fields of either business or public health.

The focus groups offered a wide range of ideas and inputs which were then synthesized to identify recurrent, pertinent themes as well as new or unique points of view. During the discussions, SMEs also shared their knowledge of existing dashboards that were not initially captured during the literature review process; thus, bringing the total count to 23 resources reviewed.

KEY FINDINGS

Categories of Resources

The reviewed resources fell into three broad categories:

- 1. Education Materials, Reports, and Databases;
- 2. Toolkits; and
- 3. Rankings, Scorecards, and Indexes.

The first category (Education Materials, Reports, and Databases) included "culture of health" frameworks for organizing various elements of community health, business cases for engaging businesses in public health initiatives, case studies of thriving cities, and reviews of publicly available databases.

The second category (Toolkits) consisted of a combination of resources such as links to data and measures; mapping tools; cost calculators; and benchmarking instruments that facilitated a connection between employee health, worker productivity, and community vitality.

The third, and largest category (Rankings, Scorecards, and Indexes), was comprised of dashboards that often tapped into other available resources from multiple categories. Thus, these resources were not necessarily mutually exclusive.

Within the third category of resources, some of the rankings were geared toward business owners (e.g., best places to start a business), community residents (e.g., best places to live, best places to find a job), both businesses and potential employees (e.g., best large companies to work for), and multiple stakeholders such as public health departments, business coalitions, and job seekers (e.g., County Health Rankings). A table listing the resources reviewed is found in Appendix B.

Dimensions and Metrics

The literature review yielded multiple themes that fell into eleven overarching dimensions of community and business health (See Table 1). Each of these dimensions comprised of several metrics (See Appendix C). The list is not exhaustive, nor does it attempt to further break down metrics by individual elements, such as separating out access to healthcare by type of services — medical, dental, mental health, or by listing out chronic illnesses under physical health. Instead, the list aims to highlight the breadth of factors being measured relevant to both business and public health stakeholders.

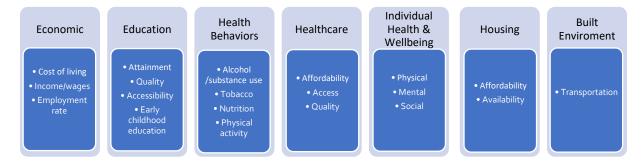
Table 1. Eleven Dimensions of Community and Business Health

Dimensions of Community and Business Health

- 1. Economic
- 2. Education
- 3. Environmental
- 4. Housing
- 5. Healthcare
- 6. Public health
- 7. Public safety
- 8. Behavioral health & policies/services
- 9. Built environment/infrastructure
- 10. Workplace
- 11. Individual health & wellbeing

Our review found that the common elements included in currently available dashboards on community and business health drew upon existing, publicly available databases (e.g., US Bureau of Labor Statistics), rankings (e.g., County Health Rankings), and survey tools (e.g., Behavioral Risk Factor Surveillance Survey, CDC Worksite Health ScoreCard). There was also a wide range of methodologies used to calculate a score or rank. The different foci and goals of the scorecards meant that there were variations in the types of dimensions and metrics used, how data were sourced, and weighing of elements in computing an overall score. Of the dimensions listed above, the ones that most overlapped across the resources we reviewed are displayed in Figure 1.

Figure 1. Most common dimensions and types of metrics found in the literature review



Robust Dashboards

Across the resources reviewed, all of which provided valuable community and business health-related information, there were three particularly robust and noteworthy dashboard tools. These dashboards had clearly defined goals, as well as useful interactive features.

Health Equity Report Card. Developed by Salud America! at the University of Texas Health, San Antonio, the Health Equity Report Card generates county level data related to local housing,

healthcare, transportation, poverty, mental health, environmental issues, and access to healthy food and active space that can be used to compare to state and national level data. This interactive tool allows community change agents to use the report card information to prepare grant applications, presentations, research briefs, and case studies aimed at their community and business health initiative goals.

THRIVE Scorecard. The Michigan Health Improvement Alliance (MiHIA) spearheaded the vision, fund raising, and execution for developing an interactive scorecard for its 14-county service area in greater central Michigan. MiHIA utilizes the unique example of a dashboard supported and created by local business leaders to coordinate partnerships across community stakeholders to improve their local community's health, wellbeing, and economic vitality. The effort is driven by the organization's impact initiative focused on health and economic outcomes named THRIVE, which stands for Transforming Health Regionally in a Vibrant Economy. Health and wellbeing measures included in the scorecard consist of morbidity ranking, biometrics (e.g., obesity rates, high blood pressure prevalence), mental health, health risk behaviors (e.g., tobacco use), health services (e.g., clinical care ranking, immunization status for children), mortality rates, and social determinants of health (e.g., food insecurity). Economic measures include household income, child poverty rates, labor force participation, and educational attainment – all aimed at making the region more attractive to business. The THRIVE scorecard is interactive in that health, demographic, and health disparities data are searchable by county. It also offers the ability for the user to build a custom dashboard by selecting indicators of interest and it allows for filtering and display of data by location, comparison groups, and sources.

The tool draws data from a multitude of sources to generate a dashboard, with indicators for multiple aspects of community health and vitality. The tool also allows for users to create custom dashboards based on their unique interests and needs.

Kansas Health Matters. Created by the Kansas Partnership for Improving Community Health, the Kansas Health Matters website provides a user-friendly tool for accessing community health-related statistical data, local resources, and supports for assessment, goal setting, and evaluation. The website offers a variety of dashboards that are customizable by region, counties, cities, zip codes, or topics of interest across the categories of health, community, economy, education, environmental health, and more. The website also includes several other resources, such as the Healthy People 2030 Progress Tracker, for community level comparisons to the targeted health objectives, allowing communities to assess their health status and set goals for community health improvement. Like the Health Equity Report Card, Kansas Health Matters offers a function that pulls all the selected indicators, maps, custom text, and other information into a location specific report.

In sum, the Health Equity Report Card, THRIVE Scorecard, and Kansas Health Matters tools highlight many of the common dimensions and metrics found across the resources uncovered in our analysis. Many of these dimensions and metrics also surfaced as being highly relevant to the concept of an accountability dashboard during the focus group discussions, which are reported below.

The Value-Add Focus Group Themes

At the forefront of the focus group discussions was the issue of recruitment and retention. One of the biggest challenges that employers face as a result of the pandemic is finding and keeping top talent. The ability to do business has been stifled because of workers' concerns about their health and safety, inadequate benefits, family care coordination responsibilities, virtual schooling, and other factors that have kept employees from returning to work. Also mentioned was individuals' unwillingness to move to new locations for jobs (e.g., cost of living outweighs salary/benefits offered). In/out migration from a community and churn rate (cost of replacing workers) are also factors that affect the survival of an organization and therefore are, for many, the top of the list in evaluating community and business health.

For organizations, their understanding the state of their community's health, and by extension the strength and resilience of that community's labor market, may be key factors incentivizing businesses to focus on broader public health problems and undertake initiatives to alleviate labor shortages linked to poor community health. Below are examples of community and business health indices that may be employed to illustrate the value and utility of a B&H Dashboard.

Workability/Employability Index

One of the prominent themes that arose from discussions was establishing a community and business health index that would demonstrate the community's working age population's ability to work. A Workability/Employability Index would show the degree to which there are adults within a community who are able to engage in productive work activities and make a contribution to society through formal employment, while also recognizing that there are ways to contribute to societal wellbeing through informal economic activities, e.g., as a stay-at-home parent. That index could be built on the following measures or rates of community vitality and resources from a health and economic perspective:

- Access to and affordability of childcare/family care services
- Healthiness of residents (low levels of physical and mental health risk factors)
- Low substance use/addiction
- Low incarceration
- High education and vocational skills
- Diverse demographic makeup (young and multiethnic workforce)
- High employment/labor force participation
- High access to affordable housing
- Accessible and affordable healthcare
- Positive net population migration (more people entering than leaving a community)

The above measures point to key infrastructure investment opportunities that address social determinants of health. Indeed, these investments are relevant to private and public enterprises, with the aim of improving the "bottom line" of both. To "sell" these investments, metrics are

needed to effectively demonstrate why businesses would benefit from promotion of individual and community health especially in a tight labor market.

For example, a community's vitality can be enhanced by raising workforce productivity, attracting new businesses, becoming a magnet for young talent, and establishing a reputation as a healthy community where individuals and families thrive.

Currently, there are several measures that businesses look at to better understand the health and wellbeing score of a community, including Gallup Healthways Surveys, Area Deprivation Index, and Social Vulnerability Index. ^{1,2,3} Combining such measures into an accountability dashboard with a focus on workability can help illuminate the importance of investing in and developing the next generation of workers to ensure businesses will, in the long run, have access to a healthy, productive, and skilled workforce.

These factors regarding the workforce directly impact businesses' success and survival. For example, a major responsibility of many working adults is caring for family members (e.g., raising children, helping aging parents, supporting family members who are unemployed). This responsibility has gained significantly more gravitas since the onset of the COVID-19 pandemic and has shaped many working-age adults' engagement in the workforce. A measure of capacity and quality in local healthcare systems and family care networks is important in understanding the degree to which workers can manage their care coordination needs in the community, which impacts their stress level and ability to be fully engaged at work (both physically and cognitively).

Livability Index

In a similar vein to the Workability/Employability Index, several focus group participants suggested that an accountability dashboard should be designed to serve as a Livability Index. Such an index would incorporate a place-based strategy for employers to recruit talent. When seeking employment (especially for a job that requires relocation), the community in which the prospective job is located plays an important role in an individual's decision to accept the job offer.

Questions prospective employees ask may include the following:

- Does the new community have affordable housing, a good transportation network, good schools, access to quality healthcare, and a myriad of amenities that make a community safe and enjoyable to live and work, e.g., ample green space, low crime rates, centrally located retail shops, entertainment/cultural venues, restaurants, and nearby grocery stores?
- Are there opportunities for social and spiritual gatherings through houses of worship, charitable organizations, libraries, and other venues?
- Is the community family-friendly and is this provision made available to people and family units in all phases of life?

People need to have a sense of connectedness to their communities in order to thrive. Thus, a quality of life (QoL) measure encompassing a sense of belonging would be important to incorporate into a Livability Index. As with the concept of a Workability/Employability Index, a Livability Index would help to address the retention and recruitment issues that employers constantly face.

Create Competition or Benchmarking Among Businesses

Several SMEs noted the importance of including productivity measures (e.g., absenteeism, presenteeism) and all its predictors (e.g., chronic health conditions, stress, job satisfaction, healthcare access/affordability, transportation infrastructure, child/family care services) within health and business dashboards. These measures allow employers to see how their employees rank against those in other businesses in the community and against a community benchmark. They would also highlight the community level factors that directly impact (both positively and negatively) their employees' health, wellbeing, and safety, and, in turn, business outcomes.

Further, benchmarking and competition would drive engagement of workers, motivating employers to take action in the community to address issues of value and importance to front line workers (e.g., livable wages, health equity, safety, diversity, cultural opportunities). Notably, SMEs also highlighted the need for competition across localities and states, not just businesses. Can governments prove that they are promoting great places to live? If state entities compete against each one another (for fiscal or other forms of compensation) even greater improvements in community investments may be attainable.

Pertinent Challenges and Questions Raised by Subject Matter Experts

Who "Owns" the Dashboard?

While the SMEs generally viewed the concept of accountability dashboards for community and business health as potentially valuable, the overriding question determining ultimate success and sustainability would be who would be accountable for data collection, analysis, decision making, action taking, monitoring, and evaluation? Further, SMEs asked, "who would foot the bill?" – that is, who would be responsible for funding the establishment and maintenance of a dashboard, ensuring it stays up-to-date, interactive, and relevant? Would the dashboard primarily target public health directors, business leaders, policy makers, or politicians? Would such a joint venture survive as an equal partnership with no one entity assuming ultimate responsibility?

These were among the myriad of questions that emerged during the discussions. Most SMEs viewed the accountability dashboard from the perspective of a public health agency "owning" and "pitching" its value to business leaders. This view was in line with the prior de Beaumont "Seven Ways" report that recommended public health officials formulate a clear "ask" of business leaders and convince them that it is worth their time to become more fully engaged in advancing public health measures.

Some SMEs felt that businesses might not view the dashboard measures as *their* accountability, especially if business owners felt they alone could not play a pivotal role in "moving the needle" or if they were not major employers in the community. However, it was suggested that as a coalition, businesses could unite and form alliances with key stakeholders leading the effort to improve business and public health measures as a joint effort corresponding to shared values. MiHIA is one example demonstrating that businesses can and have taken on a champion role. As described above, the THRIVE Scorecard is evidence that business leaders can serve as the driving force behind the funding, development, and implementation of the tool aimed at improving community wellbeing and economic vitality.

What's the End-Goal for the Dashboard?

Another question that came up during focus group discussions, was, "How will the dashboard be used? As a diagnostic, prescriptive, or predictive tool?" Potentially, the answer may be "all the above."

Diagnostics would allow communities to raise awareness, establish baselines, and identify gaps and opportunities for action. This, in turn, may lead to a review of alternative strategies and prescription for change based on which issues are most pressing. Finally, developing actionable initiatives to address community-wide needs would be required with a robust evaluation strategy built in.

In the long run, the dashboard can be used as a comparative and evaluative tool to determine how a community fares compared to other communities on key business and health priorities (e.g., ability to recruit/retain talent, compete with other communities, attract new employers, and increase tax revenues needed to fund public good campaigns) and how it has advanced in meeting its business and health goals. Considering the data sources utilized, the frequency of dashboard use would be largely dependent on the cadence of updating the data. This aspect of refreshing data (and, by extension, the dashboard) is also critical in predicting the value and intent of a dashboard to a given business or community, especially for meaningful benchmarking at local, regional, and national levels or within business sectors.

What's the Strategy/Business Case to Get Business Leaders Onboard?

The challenge becomes how to entice businesses to be involved if they are not already onboard with community and business health initiatives. The focus group participants indicated that there is an evolving expectation that the CEO of an organization is also a civic leader who is engaged in matters beyond the walls of the workplace. Thus, it is important to challenge leaders to think beyond what is most important to their shareholders and even employees — to see themselves as a force for improving not just company success, but also community and business health.

At the same time, SMEs acknowledged that investing in communities is a tough ask of employers not already so inclined, thus focusing on those businesses already invested, or otherwise ready to become engaged, is most likely to pay dividends. Further, businesses may cycle through periods of

readiness for engaging in initiatives. Thus, crucial to getting leaders onboard is being able to make the business case on the connection between population health indicators and economic factors relevant to businesses with hard data, such as those provided on B&H Dashboards.

Business leaders are aware to varying degrees about key community and business health issues that can impact their performance and ultimately threaten their survival. These issues include, but are not limited to, retention of trained staff, mental health of employees and their families, sustainability, safety, transportation, schools, care coordination, and quality of life (QoL) measures (e.g., reliable trash removal services, safe drinking water, limiting air pollution).

In moving forward on a dashboard initiative, it is important to be clear about the role the business needs to play (what is its accountability) in improving community and business health; as well as identifying a shared value beyond general Corporate Social Responsibility (CSR). A focus on metrics which businesses can adopt may have the most traction.

For example, community health measures such as access to and affordability of childcare/family care services and healthcare, healthiness of residents, and high labor force participation are influenced by employer-based benefits, compensation, sick leave policies, and culture of health variables, which exert economic and health impacts on businesses and their workers (e.g., in the form of absenteeism, presenteeism, safety incidents, and turnover).

Tobacco restrictions offer a concrete example of business involvement in public health measures which in turn improve worker performance. Smokers have been shown to be less productive and more costly than non-smokers to employers. Thus, employer engagement in reducing tobacco use may yield benefits to both public and business health in the form of fewer ailments and associated healthcare spending.

Large employers tend to be more engaged in community and business health initiatives because they have more resources to spend and a larger footprint in the community. However, it is just as important to engage small/medium-sized businesses because they collectively employ a greater proportion of workers who also tend to be lower wage earners and more vulnerable to illnesses (e.g., hourly employees who may not have access to employer-based health benefits).

How is Community Defined?

This concept is one that is hard to nail down as it will mean different things to different employers. For most businesses, their community is the people within their company walls. But is it also where people live (which may be across counties, states, or even countries) or where the business is physically located (where, in some cases, few workers live). County level statistics, as many of the existing dashboards are based upon, may not resonate with some employers. This is especially true in the post-COVID world where the pandemic has accelerated work from home and other remote locations. If that is the case, what kind of "community" accountability dashboard would engage business, and at what level or scope?



Parameters for Dashboard Metrics

As displayed in Appendix C, the number of potential metrics of interest and value for an accountability dashboard is large. That can become overwhelming, both from a logistics perspective (in terms of data collection, analysis, and management), as well as from the user's experience. Throughout the focus group discussions, there was consensus among participants that the selected measures should be limited to a finite and parsimonious number (5-10 for example). A question was raised as to whether a single core measure can be identified that drills down for each key dimension. But that may not be realistic for some of the dimensions examined; many include metrics where there is no single value that can serve as a proxy. Because different stakeholders may care about different issues, which can vary, for example, by industry, community, timeframe, or employer size, a dashboard with a narrow set of metrics may not be sufficient to be meaningful or tailorable to be engaging. Even when narrowing the dimensions to just two (such as the MiHIA's Thrive Scorecard), each dimension consists of several indicators, some of which are composites of multiple measures.

If the dashboard could be tailored to be industry-specific, interactive, and customizable to allow businesses to create a tool that meets their specific needs, such a dashboard's value would increase, and uptake would likely be higher. Each community has its own set of challenges. While there may be some universal factors (common dimensions applicable to most communities), certain communities may be particularly interested in specific metrics within larger categories (e.g., under education, some communities may be especially interested in skills training or STEM education while others may be focused on graduate level education in specialized areas such as artificial intelligence). Further, the information that would accompany the data and metrics would help businesses make sense of how these dashboard elements can affect their bottom line.

SUMMARY AND RECOMMENDATIONS

What: Key take-aways

The literature review and focus group discussions revealed that there are many high-quality data sources, tools, rankings, and dashboards useful to the public health and business communities. The existing resources cover a broad range of dimensions and metrics that capture the various elements of community and business health and economic vitality.

Creating a new prototype accountability dashboard as envisioned at the beginning of this project would involve "reinventing the wheel" to a large degree. Most of the factors that the SMEs mentioned as important to stakeholders regarding functionality, utility, and relevance are already available in the marketplace. *Salud America!*, MiHIA, and Kansas Health Matters for example, have created interactive, tailorable tools that provide stakeholders with dashboard reporting of community and business health and economic status. Moreover, these examples of existing tools also offer the ability to conduct benchmarking and comparisons across county, state, and national levels. Thus, the existing dashboards may meet many of the functional elements the SMEs indicated as valuable to stakeholders.

So What: Advancing Business and Health Accountability Dashboards as Tools Necessary to Document Business and Public Health Impacts

B&H Dashboards have the potential to better support the mission of enhancing community health by establishing datapoints that document forward progress in achieving public health goals, as supported by the business community. Dashboards alone won't *cause* improvements in public health. They will, however, document the need and opportunity for interventions and, once such interventions are in place, whether they succeed. While several scorecards and dashboards are available to public health communities, few are shared with the business community in order to align common purposes.

"The need, as I see it, is how to refine the existing community dashboard instruments to be something useful on a regular basis to businesses, especially small businesses. Presently, that voice is missing from the conversation on public health in our community."

Scott Hall, Senior Vice President, Civic and Community Initiatives, Kansas City Chamber of Commerce

"[The] community itself is the ultimate focus. Sort out the success stories to [determine] if it's the people or the process. Is it the chef or ingredients that made the restaurant a success? You can't scale up the person, but you can scale up the process."

Kevin Frick, Professor,
 Carey Business School,
 Johns Hopkins University

"There is a needed focus to entice businesses to be involved, and the role they can play in improving community health... Businesses leaders are increasingly understanding that a healthy community is good for business but the real question is who is accountable and responsible to take that on...who "suffers the bill?" We need to focus on shared value, not just CSR."

Lauren Smith, MD, MPH, Chief Health Equity and Strategy Officer, CDC Foundation As explained in this report, there are still gaps and opportunities to be explored with available dashboards/reporting tools. A key question is whether B&H Dashboards truly influence business engagement in addressing public health needs in a community and, if so, whether having business leaders engaged improves public health outcomes.

As a next step, we recommend an evaluation of "evidence of impact" arising from B&H Dashboards. What is not well understood are the following questions:

- 1) What is the level of awareness within the business community of these dashboards?
- 2) How much and how well have these dashboards been utilized?
- 3) Who is accessing the dashboards and for what purpose?
- 4) What is their perceived value by business leaders?
- 5) Does the utilization of the dashboards have an impact on business and public health outcomes?
- 6) Are dashboards contributing to preventive or interventive strategies/plans?
- 7) Are dashboards adequately dealing with health equity issues?
- 8) Are dashboards being used to monitor changes in community and business health on an ongoing basis?
- 9) Who is accountable for "moving the needle" on the dashboard metrics?
- 10) Who is funding such initiatives to keep them sustainable?

In short, before determining whether a new accountability dashboard is needed, further understanding the impact of the existing dashboards is warranted.

Now What: Proposed Next Steps

We recommend establishing closer partnerships with the three leading organizations mentioned above to conduct a deeper dive (i.e., process evaluation) to evaluate how well their tool is working. The deeper dive would involve finding out how these organizations get buy-in, secure funding, raise awareness, identify community and business health needs, and develop interventions that "work." Understanding these elements will help determine what is required for utility, impact, and sustainability of such tools. Specifically, a process evaluation would advance understanding of how these dashboards can be refined to be useful to a wide range of

"Companies understand what is meant by having a 'carbon footprint" ... we need to educate them on a new term — 'public health footprint'."

Dexter Shurney, MD, MBA, MPH Chief Health Equity, Diversity & Inclusion Officer and Chief Medical Officer,

"Reputation of companies matter to business owners — indicators that matter include diversity, equity, inclusion, and social responsibility ... Good schools, transportation, public health infrastructure, medical care coordination — these all matter when a corporation is looking for a place to grow its business."

Robert Galvin, MD,
Chief Executive Officer,
Equity Healthcare,
Rlackstone

"If the data are formatted and consolidated into a tool that people can use, and easier to understand, then business leaders will take action. ... They will ask, "what if / what is the next step / how can I change things / can I have an impact?"

 Jeffery Hess, MD, MS, FACOEM, Corporate Medical Director, General Motors

"Future work should focus on feasibility, dissemination, and widespread adoption."

David Anderson, Ph.D.
 President & Founder,
 VisioNEXT LLC

employers, identify and separate out cause vs. effect measures, and learn how they can be better leveraged to support emergency preparedness and future readiness plans.

CONCLUSION

To demonstrate public health impact, key community stakeholders, including business and public health leaders, require meaningful measures ("metrics that matter") to document forward movement in achieving cultures of health with emphases placed on health equity.

The groundwork has been laid through the development of well-designed and thoughtful B&H Dashboards. A next phase of this project would build on recommendations expressed in a Bipartisan Policy Center report (Public Health Forward: Modernizing the U.S. Public Health System⁷) that encouraged incentivizing partnerships between public health departments and other key stakeholders within a community including business owners.

If existing dashboards are effective tools as envisioned, the proposed next step - a process evaluation project - would reinforce the success elements needed to ensure long-lasting public health impacts. It is critical that the business community be offered sound data supporting their investments in public health. Such investments can secure long-term benefits to the economic development and sustainability of communities where businesses are anchored – benefits that can be measured not only in dollars saved, but also in improved population health, health equity, greater preparedness for inevitable health crises, and economic prosperity for all.

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APPENDIX A: SUBJECT MATTER EXPERTS

Name	Title and Affiliation	Informant Type
Mohammed Ali, MD, MSc, MBA	Professor, Rollins School of Public Health, Emory University	Public Health Representative
David Anderson, PhD	President & Founder, VisioNEXT LLC	Both
Cathy Baase, MD, FAAFP, FACOEM	Board Chairperson, Michigan Health Improvement Alliance	Business Representative
David Ballard, PsyD, MBA	Consultant & former Assistant Executive Director, American Psychological Association	Both
Lawrence Bowdish, PhD	Executive Director, U.S. Chamber of Commerce Foundation	Business Representative
K. Andy Crighton, MD	Chief Executive Officer, Crighton Consulting Group	Business Representative
Jules Duval, MD	Chief Medical Officer, World Bank Group	Business Representative
Kevin Frick, PhD	Professor, Carey Business School, The Johns Hopkins University	Both
Robert Galvin, MD	Chief Executive Officer, Equity Healthcare, Blackstone	Business Representative
Laura Gitman, MBA	Chief Operating Officer, Business for Social Responsibility	Both
Jessica Grossmeier, PhD, MPH	Chief Executive Officer, Jessica Grossmeier Consulting	Business Representative
Meg Guerin-Calvert, MPA	Senior Managing Director, FTI International	Both
Scott Hall, JD, MBA	Senior Vice President for Civic and Community Initiatives, Greater Kansas City Chamber of Commerce	Business Representative
Jeffery Hess, MD, MS, FACOEM	Corporate Medical Director, General Motors	Business Representative
Kim Jinnett, PhD. MSPH	Principal, Health Policy and Systems Research, Genentech	Both
Debra Lerner, MS, PhD	Director, Program on Health, Work and Productivity, Tufts Medical School	Public Health Representative

Name	Title and Affiliation	Informant Type
Wendy Lynch, PhD	Consultant	Public Health Representative
Rick Maechling, PhD	Senior Program Officer, Christine & Paul Branstad Family Foundation	Both
Stephen Massey, BSFS, MIA	Co-founder, Meteorite, and Director, Health Action Alliance	Both
John McDonough, DrPH, MPA	Professor, Harvard T.H. Chan School of Public Health, Harvard University	Public Health Representative
Megan McHugh, PhD	Associate Professor of Emergency Medicine, Northwestern Feinberg School of Medicine	Public Health Representative
Robert K. McLellan, MD, MPH, FACOEM, FAAFP	Professor, Active Emeritus, The Dartmouth Institute for Health Policy and Clinical Practice	Public Health Representative
Ronald J. Ozminkowski, PhD	President and Founder, Analytic Strategies & Consulting, LLC	Business Representative
Amelie Ramirez, DrPH, MPH	Professor, Director of Institute for Health Promotion Research, Chair of the Department of Population Health Sciences, UT Health San Antonio	Public Health Representative
Pamela Rich, MPH	Director, Business Group on Health	Business Representative
Dexter Shurney, MD, MBA, MPH	Chief Health Equity, Diversity & Inclusion Officer and Chief Medical Officer, Adventist Health	Business Representative
Lauren Smith, MD, MPH	Chief Health Equity and Strategy Officer, CDC Foundation	Public Health Representative
Paul Terry, PhD	Senior Fellow, Health Enhancement Research Organization; Editor-in-Chief, American Journal of Health Promotion	Both
Emily Yu, MBA	Executive Director of the BUILD Health Challenge, de Beaumont Foundation	Public Health Representative
Eric Zimmerman, MPH, MBA	Chief Innovation Officer and Chief Commercialization Officer, Kumanu	Both

APPENDIX B: LITERATURE REVIEW RESOURCES

Name	Lead Organization	Resource Category	Primary Audience	Notes
The Healthy Business Metrics Guide	Business for Social Responsibility (BSR) Healthy Business Coalition	Toolkit	Private Sector	Select guiding metrics for building an evidence-based healthy business program and create alignment with public health metrics.
County Health Rankings & Roadmaps	County Health Rankings	Rankings	Public Health	More than 30 measures help communities understand how healthy their residents are today (health outcomes) and what will impact their health in the future (health factors).
Well Being in the Nation (WIN) Measures	Well Being in the Nation Network	Report	Private Sector and Public Health	Shows connections between social conditions, health, community, and well-being.
Mapping Tools	Build Healthy Places Network	Toolkit	Public Health	Demonstrates disparities and need, provides baseline data, document trends, and more. A collection of mapping tools for community development and health.
States in Detail	Trust for America's Health	Database	Public Health	Provides access to data for critical health indicators in each state or territory.
Tools and Analysis	Integrated Benefits Institute	Toolkit	Private Sector	Tools include benchmarking, cost estimator of health on productivity and disability diagnosis analysis.
Culture of Health Framework	RWJF	Framework	Private Sector and Public Health	Identifies priorities for driving measurable, sustainable progress and improving the health and well-being of all people.
JUST Capital's Rankings	Just Capital	Rankings, Report	Private Sector and Public Health	A scorecard for corporate America, with unbiased data on how the largest U.S. companies perform on the issues Americans prioritize.
City Health	De Beaumont Foundation	Ratings	Public Health	Rates the nation's 40 largest cities in policy areas that consider key social determinants of health along with success of policy implementation.
The Best Places to Live in the US	U.S. News Best Places	Rankings	Private Sector	The 150 most populous metro areas are analyzed to rank the best places to live.

Name	Lead Organization	Resource Category	Primary Audience	Notes
The 20 Best Places in America to Start a Business	CNBC	Rankings	Private Sector	Metro areas that are emerging as small-business hot spots are ranked, and reasons why small-business owners are finding them especially attractive are outlined.
The 50 Best U.S. Cities for starting a Business in 2020	Inc.com	Report	Private Sector	A compilation of case stories focusing on various factors that make certain cities attractive for start-ups, e.g., affordability, vibrant lifestyle.
Best Places to Work: Healthiest Companies in America	Greatist.com	Report	Private Sector	Truly stellar businesses are identified by researching companies and analyzing data on work-related health and wellbeing metrics.
Behavioral Risk Factor Surveillance System	Centers for Disease Control and Prevention	Database	Public Health	National system collecting state level data on health-related risk behaviors, chronic health conditions, and use of preventive services.
Best Cities for Jobs	Wallet Hub	Rankings	Private Sector	The report analyses 182 cities across two dimensions: job market and socioeconomics, evaluated by 32 metrics. Final weighted averages are calculated and used to rank-order the sample.
America's Best Large Employers 2021	Forbes	Rankings	Private Sector	Rankings of the 500 large employers that received the most recommendations by employees in a survey.
Emerging Housing Markets Index	WSJ/Realtor.com	Rankings	Private Sector	Reviewed data for the 300 most populous core-based statistical areas, as measured by the U.S. Census Bureau. The overall methodology explores two main areas: real-estate markets and economic health.
Performance Measurement in Economic Development	Matthew Fischer & Assoc Inc.	Report	Private Sector	A summary of the literature on Performance Measurement in Economic Development provides guidance to economic developers for the creation of their own metrics.

Name	Lead Organization	Resource Category	Primary Audience	Notes
2019 Quality of Living Survey	Mercer	Report	Private Sector	Mercer evaluated local living conditions in more than 450 cities surveyed worldwide.
Healthiest Communities	U.S. News	Rankings	Public Health	Interactive tools that can measure how the dozens of social factors assessed in the Healthiest Communities analysis are tied to health.
Health Equity Report Card	Salud America! at UT Health San Antonio	Tool	Public Health	Interactive tool that generates local housing, transit, healthcare, and other data.
Thrive (Transforming Health Regionally In a Vibrant Economy)	Michigan Health Improvement Alliance (MiHIA)	Rankings	Public Health	Interactive rankings with health, demographic, and health disparities data searchable by county in the Great Lakes Bay Region of Michigan.
Kansas Health Matters County Dashboard	Kansas Partnership for Improving Community Health	Dashboard	Public Health	150 health indicators provide comparable and actionable information across different geographic, organizational, or administrative boundaries and/or can track progress over time.

APPENDIX C: DIMENSIONS AND TYPES OF METRICS OF COMMUNITY AND BUSINESS HEALTH

Dimension	Types	of Metrics
ECONOMIC	. , p ===	Income/wages
	4	Income inequity
	4	Poverty
	4	Children in poverty
	4	Cost of living/ regional price parity (RPP)
	4	Small businesses
	4	Labor force participation
	4	Unemployment rate
	4	Job market
	4	Disability
	4	Population (size, age, growth rate)
EDUCATION	4	Education achievement (math/reading scores, graduation rates, advanced
		degrees)
	4	Education participation (disconnected youth, enrollment rates)
	4	Education infrastructure (quality, pre-k/early intervention, community
		resources)
ENVIRONMENTAL	4	Air quality (indoor, outdoor)
	4	Water quality
	4	Lead exposure
	4	Noise exposure
	4	Toxic pollutants
	4	Natural hazards
	4	Waste management
HOUSING	4	Availability
	4	Affordability
	4	Quality
	4	Abandoned housing
	4	Elderly housing
	4	Low-income housing
	4	Homelessness
	#	Internet access
	4	Residential segregation
HEALTHCARE	+	Evidence-based preventive care services
	+	Healthcare and Rx utilization
		Healthcare and Rx costs
	+	Quality of care
DUBUGUEAUTU	+	Access and availability to care
PUBLIC HEALTH	+	Screening services/programs
	+	School-based clinics/education
	+	Domestic violence prevention
	+	Immunizations Health/food inspection
	+	•
	+	Food security Drawnties and public health policy
	4	Prevention and public health policy

Dimension	Types of Metrics
PUBLIC SAFETY	↓ Crime
	Incarceration
	↓ Injuries
	♣ Homicides
	♣ Suicides
	♣ Firearm fatalities
	♣ Substance misuse
	Policing systems
	♣ Juvenile arrests
BEHAVIORAL HEALTH &	♣ Tobacco use
POLICIES/SERVICES	Smoking cessation programs
	Public space smoking restrictions
	Cost/accessibility of cigarettes
	Physical activity levels
	Physical education requirements in schools
	School nutrition
	👃 Alcohol use
	♣ Preventive care
BUILT ENVIRONMENT/	Parks and recreation space
INFRASTRUCTURE	Pedestrian safety/walkability
	Public transportation accessibility and affordability
	↓ Commute
	♣ Bike safety
	Community layout
	Childcare/family care services
	Public works functions/services
WORKPLACE	Workforce and operations (adherence to ESG standards)
	Products and services
	Community engagement (Corporate Social Responsibility)
	Policy advocacy
	Occupational illnesses and injury
INDIVIDUAL HEALTH &	♣ Overall
WELLBEING	♣ Physical
	Emotional/Mental
	♣ Social
	Occupational
	♣ Spiritual
	♣ Intellectual
	♣ Financial