



Actionable Data Sharing: Opportunities to Leverage Public Health Data to Enhance Cross-sector Partnerships

Background and Vision

The health landscape is shifting, and partnerships are rapidly forming between public health, clinical partners, human services, and other sectors. State public health leaders can guide and support these partnerships with several strategies, including the use of data that displays patterns and trends within and across communities and informs decisionmaking to improve population health. This issue brief will explore how purposeful data sharing and cross-sector linkages can focus action and policy development and enable more effective use of what will likely be increasingly scarce resources.

Purposeful data sharing and integration can drive policy and action that promote essential population health analysis and multisector interventions.

New technologies can foster data sharing across sectors, such as between electronic health records information and public health data, and can ensure more accurate, varied, and timely data collection at the most local level possible. These capabilities can create new insights and identify opportunities for interventions by drawing a more complete picture of health across entire communities or within subpopulations. As new payment and delivery models that reward value over volume gain momentum, payers and health systems, and state and local health officials will need to be aware of the importance of community prevention and the social determinants of health in order to lower costs and achieve better outcomes. This presents a prime opportunity for state public health leaders to engage and share data-based insights with the healthcare and [human services](#) systems.

Together, stakeholders will face [common challenges](#) in data sharing, including overcoming privacy and legal concerns, information technology system limitations, and potential workforce gaps. In addition, we need to standardize data and stress the importance of uniformity of data elements and reporting requirements, which currently vary across states and communities. Common use of terminology, indicators, and measures will be necessary for evaluation and continuous quality improvement. There are challenges surrounding varying formats and types of data collection, which will need to be resolved. Finally, the data collected must drive actions that can measure and improve health, not just healthcare.

Improved access to and analysis of data has the potential to generate new information and help partners most effectively allocate scarce resources through targeted interventions (Fig. 1). These new capabilities might include the following elements:

A shared ability to map community-level trends that can be used to address health-related social and environmental needs and risk factors. Integrated data (such as ZIP code level data on housing, life expectancy, crime rates, transportation, access to healthy foods, or educational attainment) can help leaders identify areas or objectives where different agencies and sectors can work together in a collaborative way and achieve mutual benefit.

Exchange and integration of real-time data from social service agencies, healthcare, public health, and other community partners on social determinants of health. Data exchange between these stakeholders can foster clinical engagement and cross-referrals, as well as coordinated planning and action.

Improved public health surveillance and ability to alert healthcare providers on relevant trends to create a mutually beneficial partnership. There are opportunities to enhance public health agencies' ability to support healthcare, rather than just accessing healthcare data to support public health goals. For example, electronic case reporting with a bidirectional exchange of information can better allow public health professionals to alert healthcare partners to trends and could be expanded to chronic disease, risk factors, or clinical preventive services utilization. In addition, this data exchange can potentially enhance public health interventions that will ultimately reduce clinical workload and improve efficiency by maximizing existing state resources.

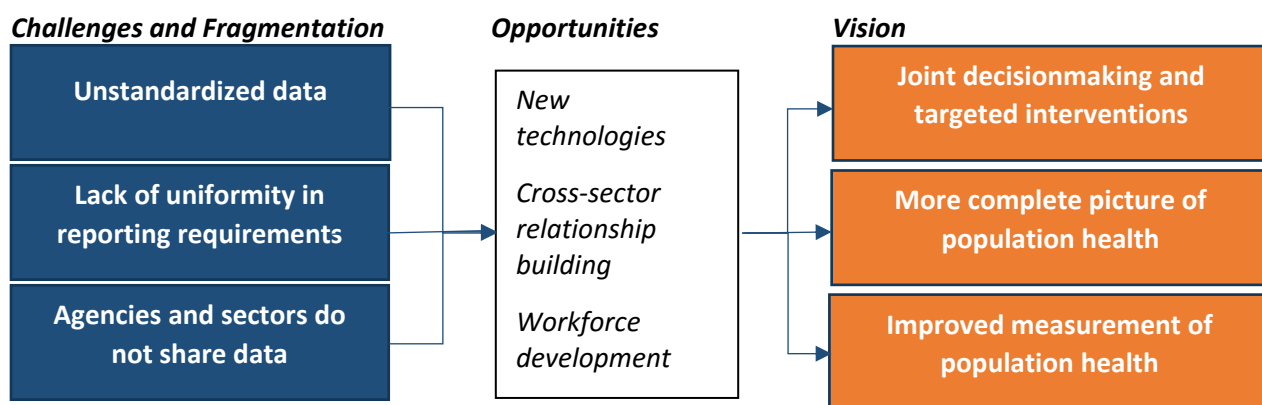


Figure 1: Opportunities to develop actionable data

State Health Official Leadership Strategies

State health officials are well positioned to lead a call for action and expand the horizon for what is possible when data, expertise, and technology come together. State health officials and agencies can serve as [chief health strategists](#) for their communities and join with their partners to promote a transformed health system that promotes wellness and addresses the social determinants of health. Key roles for state officials in such collaborative efforts are sharing data already collected and analyzed by their health departments and encouraging the its use in the development of coordinated responses to the health challenges in their communities.

Play a leadership role in mobilizing partners around a specific issue and drive a coordinated response. Start with examining and analyzing the readily available data, and use that to arrive at a specific goal or desired outcome (with the input of community members and partners). Once you identify the issue you seek to address, you can better determine which additional types of data are needed to drive targeted and integrated data analysis and query capability. Explore capturing data sources from healthcare and other sectors that are tied to social determinants (e.g., Supplemental Nutrition Assistance Program enrollment from the state social services agency, chronic disease diagnosis from electronic medical records, school truancy and drop-out rates from the education department, and/or cause of death information from the medical examiner).

Look for the data that is unique to your agency that may be underutilized or unrecognized. Use that data to promote the usefulness of public health resources and expertise to help other agencies and organizations achieve goals that are important to them and develop a shared vision and goals. For example, primary care office directors have a wealth of knowledge on access to healthcare services, client demographic information, provider recruitment and retention, and regional health disparities. This data can be useful in addressing the overuse, misuse, and underuse of healthcare services.

Tailor your data analysis and visualization to your partners. Partners may need someone to help explain the data and recommend action, and it will be necessary to tailor the presentation and display of data to your partner so it can become actionable and understandable information. Pointing to data alone is not sufficient to tell a complete story. State health officials should also seek to develop in-person connections in order to develop strong partnerships, build trust, and avoid potential miscommunication.

Under your leadership, create a governance structure to lead data collection and analysis that is empowered with decision-making authority. The governance body can drive an assessment of available data and technology needed to advance public health goals and objectives, as well as develop sustainability plans for ongoing operations.

Consider how to restructure your organization to facilitate communication among program staff. For example, epidemiologists may be siloed in specific programs, often centered on communicable and chronic disease prevention, due to their funding streams. There may be opportunities to improve collaboration among epidemiologists, program staff, and informaticians, by creating data analysis teams. Consider working within your department to identify staff with data analysis skills.

Formalize greater participation in and use of data from local community health needs assessments. Non-profit hospitals completing [community health needs assessments](#) (CHNAs) are encouraged, but not required to, collaborate with public health departments. State health officials should encourage these assessments as a joint effort in order to improve coordination of hospital community benefits with public health and community-based efforts to improve population health. CHNAs can also provide concrete data on priorities on the ground, which can help partners strategize around specific issues.

Use Medicaid waiver discussions as an opportunity to engage CMS. States exploring Medicaid waivers with CMS can use those negotiations to discuss appropriate data and metrics that drive deep changes in health rather than exclusively in healthcare services delivery. Advocate for the data elements you would like to be tracking.

Begin with a single priority area that can serve as a relatively easy “win.” Data collection, analysis, and sharing across sectors and agencies can be challenging and expensive, particularly for under-resourced agencies. Some states may be well served to first determine whether there is a data option for a single priority area that can serve as an early success and that would be feasible to add without additional funding and frustration.

Examples of Data-Driven Coordinated Action

Massachusetts passed legislation in 2015 requiring the Department of Public Health to analyze ten existing data sets from across five state government agencies to deeply investigate opioid-related deaths and drive policy solutions. The legislative mandate helped overcome initial roadblocks, and ultimately 29 groups from government, academia, and the private sector provided their expertise, data, and staff time to support development of the comprehensive [Chapter 55 report](#). The Department of Public Health has been able to use this new information to engage partners in criminal justice and clinical settings and offer concrete, evidence-based interventions and recommendations. The state is beginning to look at data from mental health, SNAP, and other sectors to build predictive models that can address the social determinants of health or indicate risk for addiction.

Michigan is exploring several projects that integrate various sources of data to inform the public health and clinical care response. The Department of Health and Human Services expanded the capacity of the state immunization registry to forecast those who will need immunizations and is working to expand consumer and beneficiary access to immunization records. In addition, Michigan developed an online, claims-based electronic health record, called Care Connect 360, which improves the coordination between physical and behavioral health, Medicaid health plans, and support services and can be used to identify high-risk individuals.

The Digital Bridge is a platform that will enhance bidirectional data exchange between public health and healthcare. This platform will also allow state and local public health agencies to speak with a single voice and engage large and multi-jurisdictional delivery systems and electronic health record (EHR) vendors. The Digital Bridge collaborative will be implementing pilots in 2017 to improve public health surveillance of communicable disease through EHR data (electronic case reporting). Ultimately, this can serve as a generalizable model for real-time disease tracking.

Opportunities for the Integration Community

The broader integration community – including stakeholders in academia, primary care, healthcare systems, payers, and federal and state agencies – play an important role in addressing critical gaps that otherwise could limit data sharing and cross-sector use:

Advocate for public health data and partnerships. Help articulate the value of public health interventions for healthcare and other sectors and foster a [culture of health](#). Collectively advocate for primary prevention through data-driven policies and interventions, which can drive and shape new payment and delivery models. Work together to develop ecological models for mapping community-level data to social service, clinical, and other indicators that reduce health disparities, address the social determinants of health, and improve overall health outcomes.

Help establish structures and agreements surrounding integrated and shared financing, ownership, and governance. These structures may also be useful to address funding and sustainability concerns, as well as to provide education on legal limitations presented by interagency and interjurisdictional data sharing, cyber-security concerns, patients' rights, and use of proprietary or private health information.

Workforce training. Train and prepare the health workforce to utilize and communicate data analyses, particularly in order to take upstream action beyond the clinic walls and reach the broader health and social system community (rather than targeting only the sick or at-risk populations). Public health professionals and clinicians do not need to have the same training as one another, but they should be trained in a way that will allow them to [understand population health fundamentals](#) and support common goals. This includes the ability to think at the system-level and engage across sectors.

Conclusion

Partnerships are rapidly forming between public health, healthcare, and human services, and they are routinely using data to design interventions and measure impact. Improved access to and analysis of data has the potential to generate new information and help partners most effectively allocate scarce resources through targeted interventions. State health officials have an opportunity to shape these partnerships by leveraging and sharing public health data, and new technologies are also expanding the horizon of what is possible.

This issue brief was developed by the Association of State and Territorial Health Officials in consultation with the [Integration Forum](#) Steering Committee, composed of John Auerbach, Trust for America's Health; Lloyd Michener, Practical Playbook; and David Sundwall, University of Utah. The issue brief was informed by the May 31, 2017, [Integration Forum Workshop on Models of Successful Data Integration and Resulting Opportunities for Public Health and Healthcare Partnerships](#).