2019 – 2023 Marathon County Health Department Strategic Plan
Preparations for SWOC Discussion

Documents for Review: To prepare for the SWOC (Strengths, Weaknesses, Opportunities, Challenges) discussion, review key documents enclosed keeping mind the following questions to be discussed:

- Strengths: What are the internal characteristics of the organization that allow it to meet customer needs?
- Weaknesses: What are the internal challenges that detract from the ability of the organization to perform effectively and efficiently?
- Opportunities: What external events can the organization take advantage of to become a leader in the field?
- Challenges: What external events may negatively impact the organization's ability to perform effectively? What do we as an organization want to ensure we protect?

Background: Marathon County Health Department in keeping with Public Health Accreditation standards is to develop a department organizational strategic plan every five years.

The strategic plan sets the direction for the department. The plan establishes a common understanding of the department's mission, vision, core values, strategic priorities, goals and objectives with measureable and time frame targets.

Marathon County Health Department's Strategic Plan is designed around a Balanced Scorecard concept. This framework acknowledges that for an organization to be thriving, it must continuously pay attention to the four pillars of success:

Citizen Perspective	Define the value and outcomes of the work of Marathon County government through the community's lens.
Employee Learning and Growth	Identify and enhance employee skills and competencies, and provide information and tools to promote the organizational culture needed to meet the community's desired outcomes.
Operations	Monitor the effectiveness of key processes to continually add value for the community given the finite resources available.
Fiscal	Maximize resources to achieve desire outcomes, working within the budget constraints of the County.

Listing of Documents to Review:

Marathon County Health Department Overview of Program Areas

Marathon County Health Department Strategic Plan Key Accomplishments 2014-2017

Marathon County Organizational Culture Survey – Health Department 2017

2017-2020 Health Priorities – Community Health Improvement Plan and Process

LIFE Report of Marathon County – 2017-2019 Calls to Action

Marathon County Strategic Plan – 2018-2022 Priority Objectives and Strategies

The 10 Essential Public Health Services

Foundational Public Health Services

Public Health 3.0 – A Call to Action to Create a 21st Century Public Health Infrastructure

2017 Marathon County Health Department Annual Report

MARATHON COUNTY
Health Department

Vision: To be the healthiest and safest county in which to live, learn, work and play.

Mission: To advance a healthy Marathon County community by preventing disease, promoting health, and protecting the public form environmental hazards.

Program Area	Specific Programs
Prevent infectious disease threats to the public by: • Protecting the public from the spread of disease • Keeping the public informed of threats and what they can do	Communicable Disease Surveillance, Investigation, and Control Immunization Surveillance and Clinics Tuberculosis Case Management and Therapy HIV Partner Services Sexually Transmitted Disease Clinic Rabies Control Public Health Preparedness
Prevent unsafe food and water by: • Working with businesses to sell food that does not make people sick • Testing water from private and public drinking wells so people do not get sick	Licensing – Restaurants, Convenient Stores, Lodging, Campgrounds, Recreational Camps, Swimming Pools Water Lab Testing
Promote strong health families during the early years by: • Helping families to have babies born healthy • Teaching people how to be good parents • Helping families connect to community resources • Preventing childhood trauma and injuries	Start Right Child Health Children's Hearing and Vision Screening Northern Regional Center for Children and Youth with Special Health Care Needs

Program Area	Specific Programs
Create places where it is easy to support healthy lifestyles by: • Choosing to use alcohol and other drugs safely • Breathing smoke-free air • Being active • Getting healthy, affordable food • Making good mental health as important as good physical health	Alcohol and other Drugs Food Systems and Active Communities Tobacco Control and Prevention Changemakers for Behavioral Health
Protect against health hazards by: • Keeping the public informed of hazards and what they can do • Protecting the public from hazards • Making sure children are not exposed to lead	Childhood Lead Poisoning Prevention Human Health Hazards Environmental Health Screens Mercury Reduction Northcentral Radon Information Center
Monitor and address community health priorities by: • Identifying major causes of disease, injury and premature death • Facilitate community partnerships to address issues impacting our communities	Community Health Improvement Planning Process (CHIPP) National Public Health Accreditation

Marathon County Health Department Strategic Plan
Key Accomplishments 2014-2017

The Marathon County Health Department Strategic Plan guides the department in carrying out its mission, that is, "*to advance a healthy Marathon County Community by preventing disease, promoting health, and protecting the public from environmental hazards*". Marathon County Health Department's Strategic Plan is keeping with the National Public Health Accreditation standards, whereby, local health departments are to develop a strategic plan every five years. As a way to ensure excellence in the delivery of services, local health departments are encouraged to work toward meeting this standard.

The following are key accomplishments from 2014-2017 for the nine goals of the Department's Strategic Plan.

Citizen Perspective

Assure programs and services are in place to address the public health needs in Marathon County.
· Released and Implemented the 2017-2020 Marathon County Community Health Improvement Plan
· Contributed to the development of the Marathon County Comprehensive Plan and provided leadership to the development of the 2018-2022 Marathon County Strategic Plan
· Provided leadership to the 2015-2017 and 2017-2019 LIFE Report, facilitating and writing the Health & Wellness section
· Provided backbone support, leadership, and technical assistance in partnership with Healthy Marathon County to create and fund the following initiatives: Launched the *Marathon County Teen* video series, published the 2015 and 2017 Marathon County Youth Risk Behavior Survey Report, secured Healthy Marathon County Pulse, an on-line data platform

Employee Learning and Growth

Promote a work environment that fosters innovation and excellence.
· Increased our understanding of individual and teams' strengths through *StrengthFinder*, aligning opportunities to utilize strengths in relationship to job duties; "round" with employees every 4-6 weeks
· Ten employees graduated from the Marathon County Leadership Program, having anywhere from 3 to 6 graduates serve as mentors in a year since 2015
· Furthered cross-team leadership opportunities; launched "Innovations" Brown Bag Seminars
· Increased employees skills in managing conflict through tools such as mutual learning mindset, giving & receiving feedback
· Developed Employee Recognition Plan for the department
· Furthered our understanding of what it means to be a value driven culture; identifying key behaviors of honesty, respect and accountability in support of our core values; identifying core value behavioral examples
· Created a strong work culture, scored 75% or higher in 11 of the 12 areas of the Denison Organizational Culture Survey in February 2017

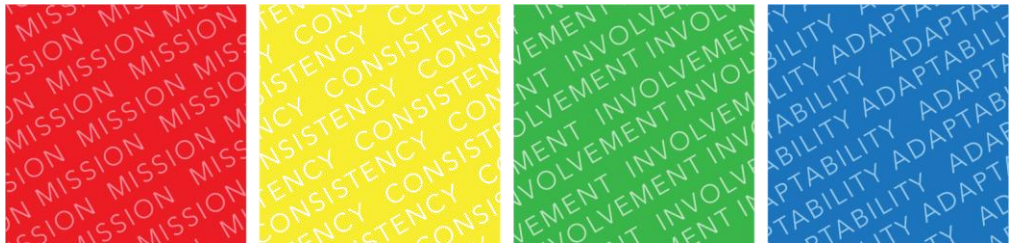
Fiscal

Promote understanding of the value public health contributes to the community.
· Continued to use TV, radio, print media, social media and websites to inform the public. Featured monthly on the 1230AM radio program *Coffee Break* the 4th Wednesday of each month. · Seventy-five (75) media contacts were made in 2017. In 2016-2017, 44% of colleagues in the department contributed to one or more media story
Assure adequate resources to support department policies.
· "Advanced Marathon County "Resolution to Secure State Funding to Support Communicable Disease", having GPR funds to further prevention and control of communicable disease for health departments adopted in the Governor's 2017-2019 Budget · Secured a eight-year grant from the Medical College of Wisconsin Healthier Wisconsin Partnership Program: Community Changemakers for Behavioral Health

Operations

Create and maintain systems to assure desired outcomes are met.
· Implemented a Performance Improvement Dashboard, reviewing and updating benchmark goals and measures annually · Implemented the department's Quality Improvement Plan; in 2017 completed 20 quality improvement projects/activities among 10 program areas · Increased knowledge and skill in quality improvement and group facilitation · Increased project management principles, tools and skills; project management plans utilized to plan new initiatives and/or quality improvement projects
Improve organizational structure to assure programmatic and operational excellence.
· Conducted "Start-Stop-Continue-Improve" quality improvement project to realign work on the Chronic Disease Team in order to facilitate the implementation of the 2017-2020 Marathon County Community Health Improvement Plan · Evaluated team and department staffing needs with every staff resignation and vacancy, seizing opportunity to realign duties · Continued to align programs, services and initiatives with staff strengths, skills and interests, to increase overall organizational capacity · Increased the department's ability to support facilitation for internal and community meetings, having two colleague complete the one-week course "Journey of Facilitation and Collaboration"; held in-house on meeting participation and basics of meeting facilitation · Strengthened management capacity by transforming two vacant coordinator positions into manager positions

Advance collaborative partnerships at the local, regional and state level to fulfill the department's mission and maximize resources.
· Continued to broaden and deepen working relationships within coalitions and partnerships; Early Years Coalition, Behavioral Health Network, Healthy Marathon County, AOD Partnership, HEAL, Central WI Tobacco Free Coalition, Homeless and Housing, Hunger Coalition, Heart of WI Breastfeeding Coalition, Marathon County School-Based Counseling Consortium, Western Marathon County Healthy Communities, RISEUP, Child Death Review, ACE Workgroup, Oral Health Workgroup, Partnership for Healthy Aging · Continued to serve on local, regional and state boards; Bridge Community Health Clinic, Healthfirst, Wisconsin Association of Local Health Departments & Boards, Public Health Council, Health TIDE, Wisconsin Public Health Association · Partnered with Medical College of Wisconsin – Central Wisconsin to provide educational seminars · Co-hosted a UW Population Health Fellow with Ascension · Explored the feasibility of creating a three-county partnership to further the development and exchange of population health data among health care systems and local health departments · Facilitated the development of community partnership for the new community health priorities of Adverse Childhood Experiences (ACES), Health Needs of Aging, and Oral Health starting in January 2017. Continue to facilitate community partnerships to advance the plan of work for the community health priorities of Alcohol and Other Drug Misuse, Behavioral Health, and Healthy Weight
Maximize utilization of technology in support of department's mission.
· Increased depth of skill in website design and maintenance, constant contact, Microsoft Excel and Access, project management software · Developed and/or improved electronic system for tracking program activities, impacts and costs; enhancements to Medicaid billing processes · Transition a number of programs documentation of services from paper to electronic · Secured technology for staff to document their work in the field · Expanded the use of "infographics" as a communication and educational tool to the public and clients served
Strengthen the department's ability to promote and implement public health policy in support of the county's mission and strategic goals.
· Invited legislators to attend Board of Health meetings to share public health issues impacting Marathon County · Developed Healthy Marathon County Policies to Watch document that identifies opportunities for education on public policy issues · Board of Health monitored and addressed over twenty policy issues and opportunities



MARATHON COUNTY

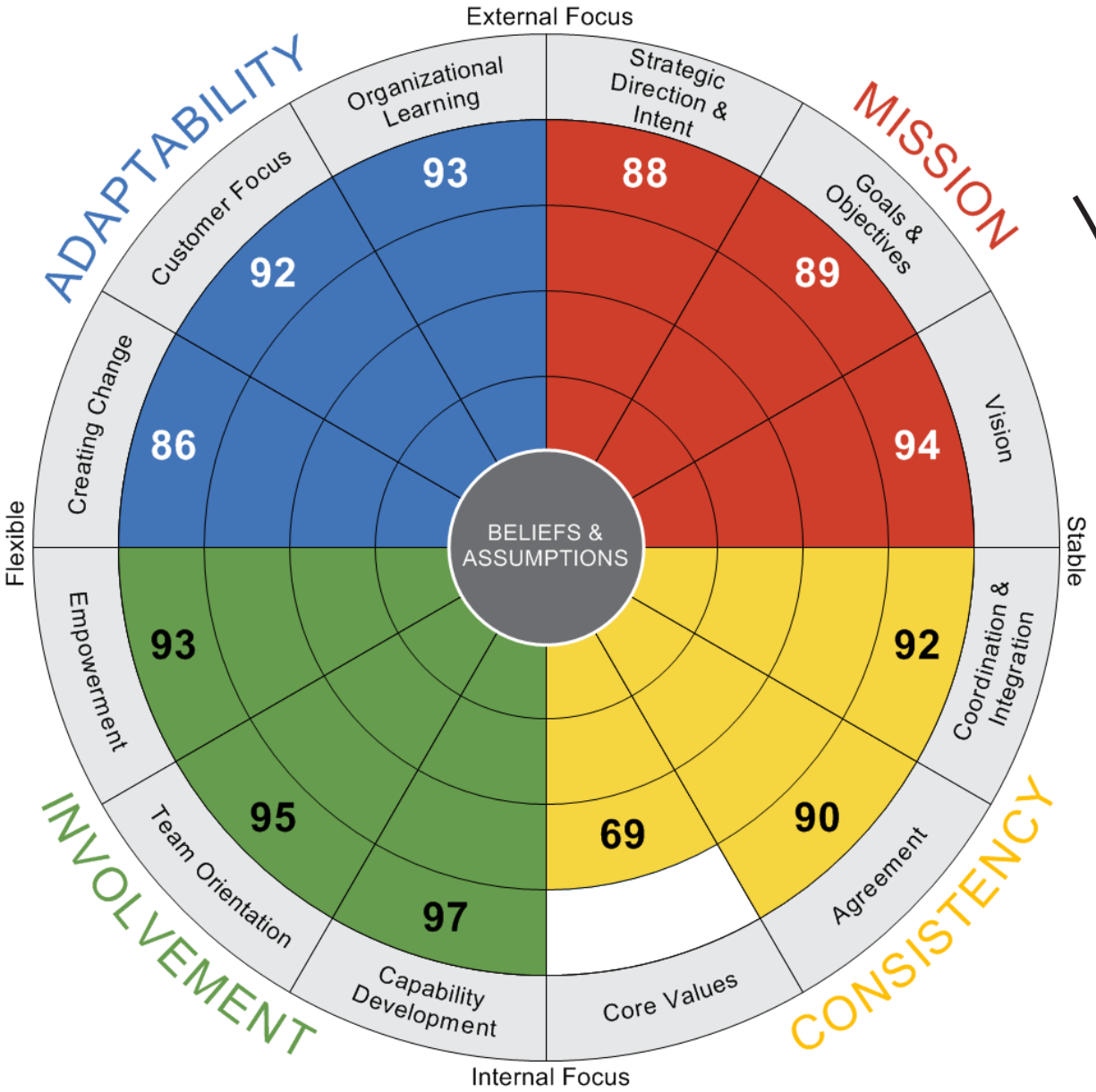
Marathon County

Organizational Culture Survey

Health Department

denison™

DENISONCONSULTING.COM



Health Department

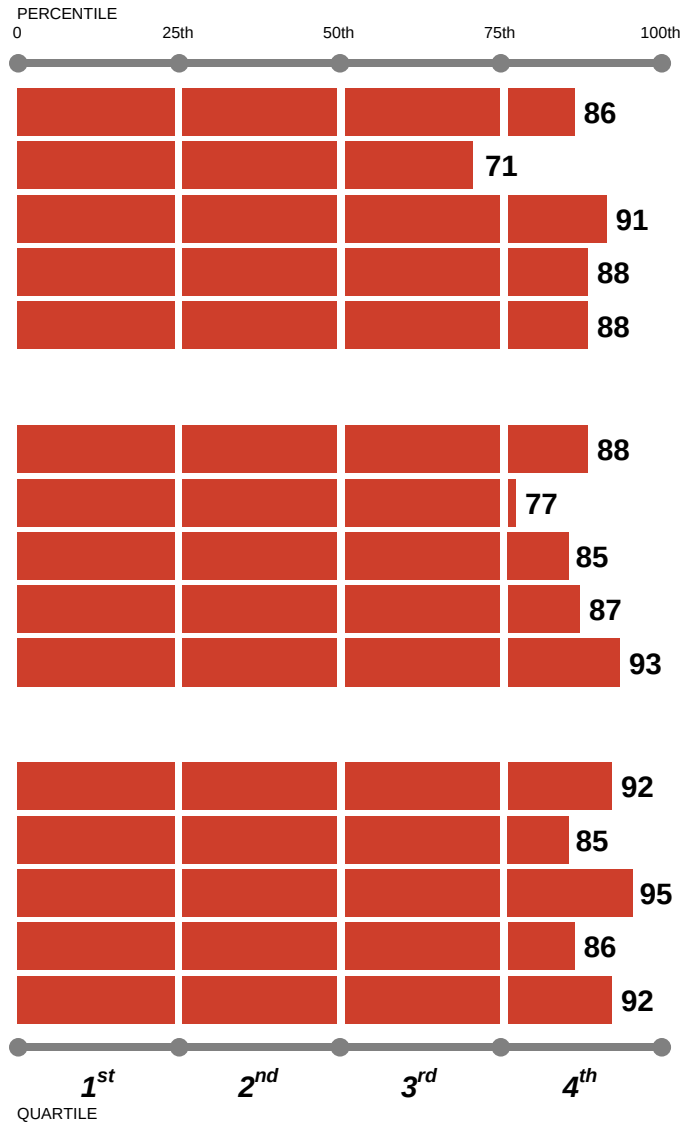
NUMBERS DENOTE PERCENTILES | 3/24/2017 | 2015 Normative Dataset

N = 42

Mission

Health Department (N = 42)

In this organization...

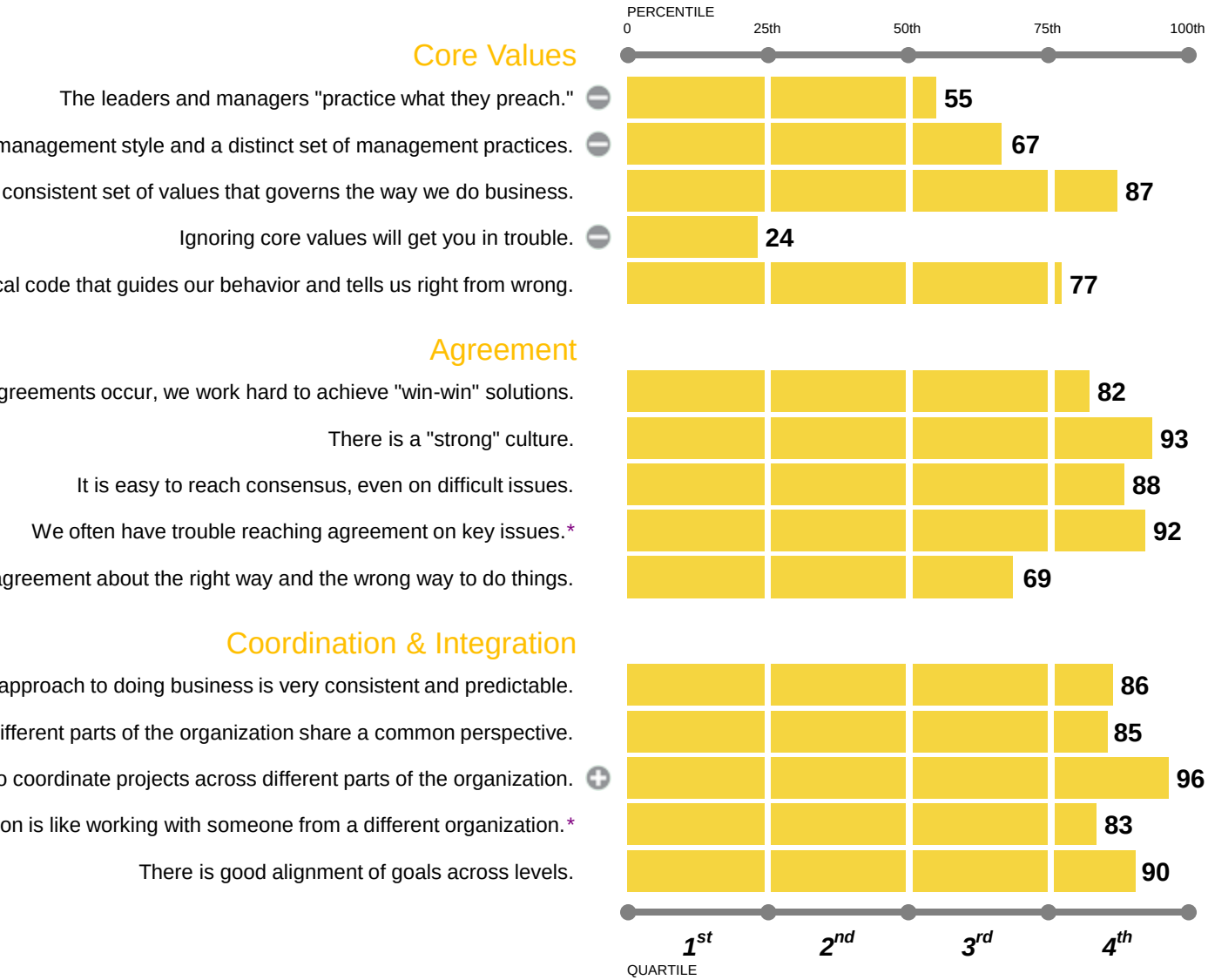


*For this negatively worded item, the raw score has been reversed.
IN ALL CASES, A HIGHER SCORE INDICATES A MORE FAVORABLE CONDITION.

Consistency

Health Department (N = 42)

In this organization...

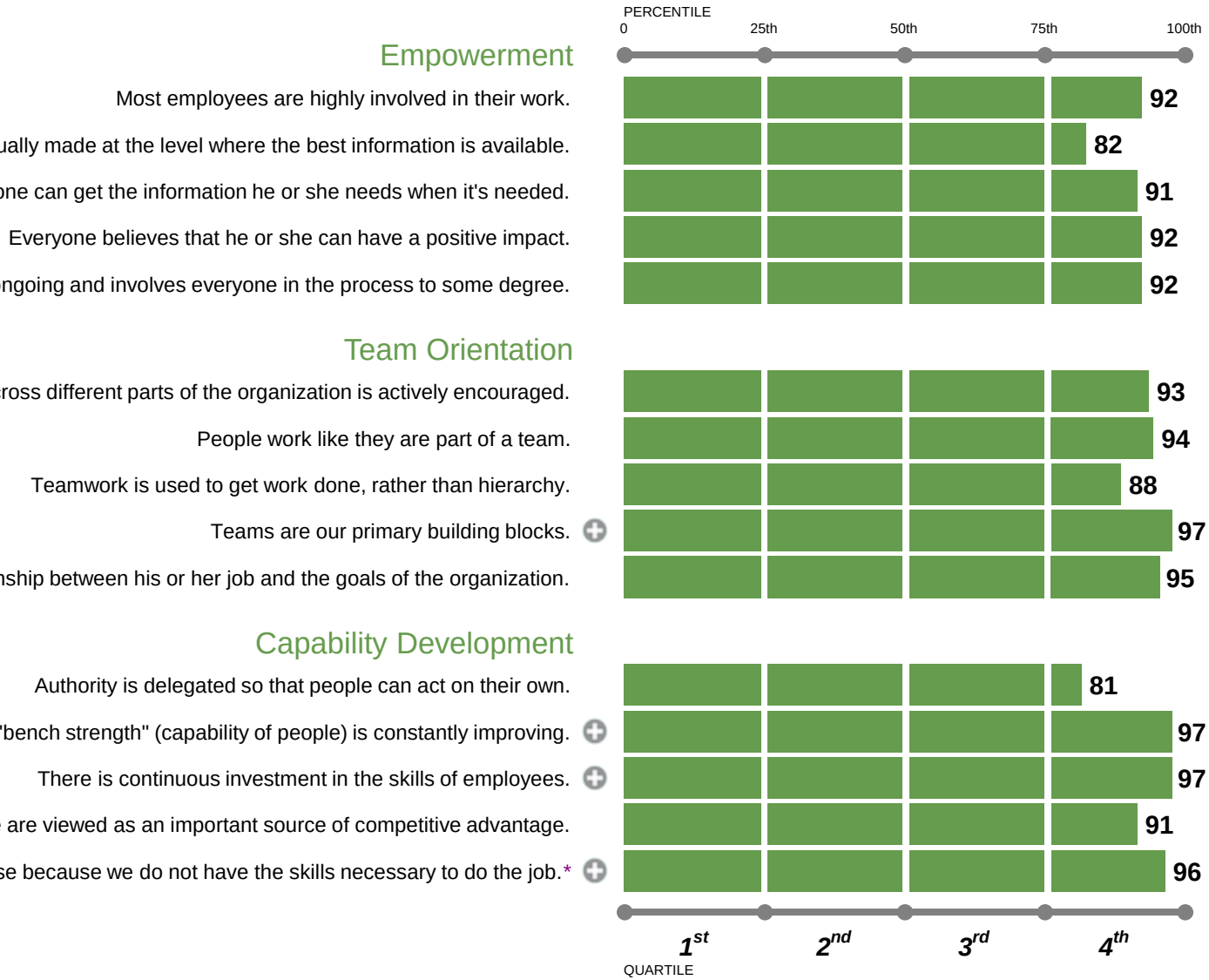


*For this negatively worded item, the raw score has been reversed.
IN ALL CASES, A HIGHER SCORE INDICATES A MORE FAVORABLE CONDITION.

Involvement

Health Department (N = 42)

In this organization...

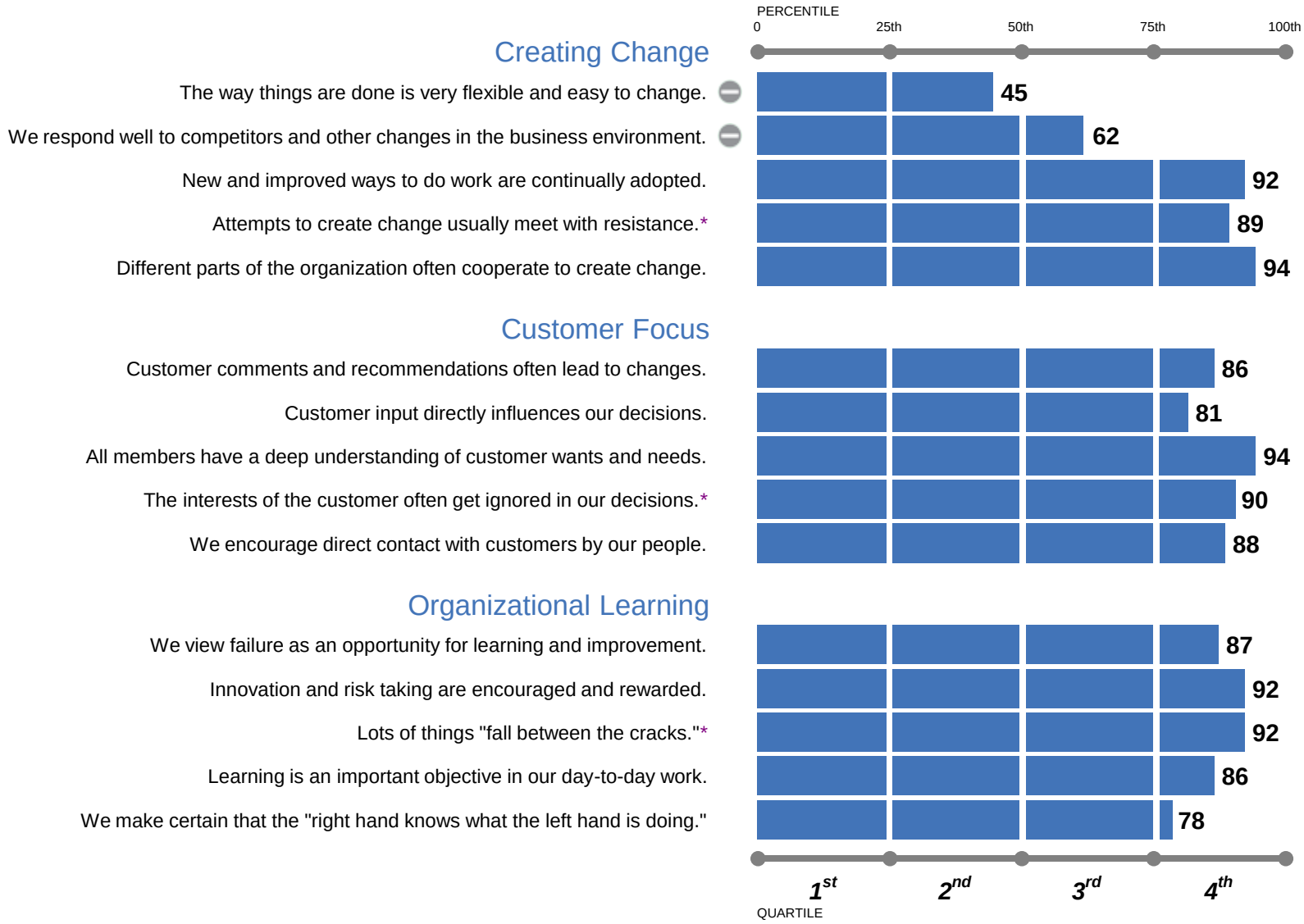


*For this negatively worded item, the raw score has been reversed.
IN ALL CASES, A HIGHER SCORE INDICATES A MORE FAVORABLE CONDITION.

Adaptability

Health Department (N = 42)

In this organization...

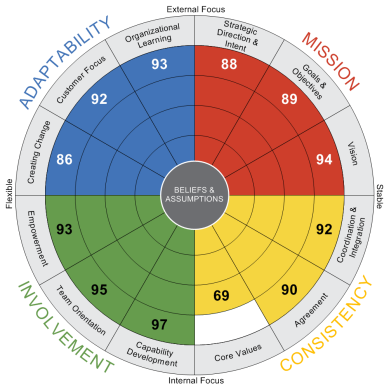


*For this negatively worded item, the raw score has been reversed.
IN ALL CASES, A HIGHER SCORE INDICATES A MORE FAVORABLE CONDITION.

Highest & Lowest Scores

Health Department (N = 42)

In this organization...



HIGHEST SCORES

97	The "bench strength" (capability of people) is constantly improving.
97	There is continuous investment in the skills of employees.
97	Teams are our primary building blocks.
96	It is easy to coordinate projects across different parts of the organization.
96	Problems often arise because we do not have the skills necessary to do the job.*

LOWEST SCORES

24	Ignoring core values will get you in trouble.
45	The way things are done is very flexible and easy to change.
55	The leaders and managers "practice what they preach."
62	We respond well to competitors and other changes in the business environment.
67	There is a characteristic management style and a distinct set of management practices.

*For this negatively worded item, the raw score has been reversed.

IN ALL CASES, A HIGHER SCORE INDICATES A MORE FAVORABLE CONDITION.

2017-2020 Health Priorities - Community Health Improvement Plan and Process

Alcohol & Other Drug Misuse & Abuse

- Vision: Creating a culture in communities where alcohol is used responsibly and other drugs (tobacco, prescription, and illicit) are not misused.
- Goal Statements:
    - o Change in social norms, attitudes, and behaviors around substance use.
    - o Strengthen community collaboration around substance abuse prevention.
    - o Increase funding for alcohol, tobacco, and other drug prevention, treatment, and enforcement.

Behavioral Health

- Vision: Promote well-being by preventing or intervening in mental illness such as depression or anxiety, along with preventing or intervening in substance abuse or other addictions.
- Goal Statements:
    - o Increase the public's awareness of the importance of good mental well-being and community services available to support their mental well-being.
    - o Improve alcohol and other drug abuse and mental health treatment services.
    - o Further integrate behavioral health within the delivery of health care.

Adverse Childhood Experiences

- Vision: Preventing or reducing the impact of potentially traumatic events that can have negative, lasting effects on health and well-being.
- Goal Statements:
    - o Maintain an ACEs/Trauma Informed Care Collaborative Initiative in Marathon County.
    - o Increase community providers and the public's understanding of the link between Adverse Childhood Experiences and overall mental and physical well-being.

Healthy Weight

- Vision: A weight that lowers your risk for health problems. Achievement of a healthy weight includes healthy food choices and physical activity.
- Goal Statements:
    - o Continue the collective efforts of the HEAL Coalition, striving to move towards increase collaboration.
    - o Identify aspects of healthy weight that are important to Marathon County residents.
    - o Strengthen the link between healthy weight and economic prosperity.

2017-2020 Health Priorities - Community Health Improvement Plan and Process

Health Needs of Aging

- Vision: Developing and maintaining optimal mental, social, and physical well-being and function in older adulthood. This includes addressing basic needs, optimizing health and well-being, promoting social/civic engagement, and supporting independence.
- Goal Statements:
    - Establish infrastructure for aging-related service providers to collaborate.
    - Create or enhance centralized system for information-programs, services, and eligibility requirements.
    - Establish community messaging about "planful aging."

Oral Health

- Vision: Promote healthy teeth and the entire mouth such as gums, chewing muscles, palate, and tongue with the goal of being free of tooth decay, gum disease, oral cancer, and chronic oral pain.
- Goal Statements:
    - Establish an oral health collaborative initiative in Marathon County that will focus community partners' efforts.
    - Further the integration of oral health within the delivery of health care.
    - Expand current oral health prevention programs and services.

Social and Economic Factors that Influence Health

- Vision: (A) Marathon County where all people enjoy the opportunities to live, learn, work, and play in a healthy community.
- Goal Statements:
    - Protect and advance the community conditions that promote health in Marathon County.
    - Build upon community assets in a manner that benefits all Marathon County residents.
    - Foster resiliency among individuals, families, and communities in Marathon County.
    - Create a strong sense of place for all Marathon residents to enjoy.

LIFE Report of Marathon County—2017-2019 Calls to Action

Mental Health

The mental health of individual in Marathon County, especially youth, warrants attention as does the need for accessible mental health services.

- Schools throughout Marathon County are struggling with managing mental health of children as a result of childhood trauma.
- Suicide has increased among high school students as has the number of youth reporting feelings of hopelessness.
- Stigma, cost and a shortage of mental health providers (psychiatrists and dual certified therapists) remain barriers to accessing services.

Substance Abuse

Substance abuse and misuse continues to be of concern in Marathon County.

- Illegal drug use was the number one issue of concern among 2017 LIFE Survey respondents.
- Drug overdoses were the number one cause of injury related deaths among individuals aged 15-64.
- While alcohol remains the largest substance abuse burden in our community, rates remain unchanged among adults and youth.
- E-cigarette use is on the rise, yet, there is a low level of concern regarding their use.

Bullying

Bullying, the pressures of social media, and social isolation pose a threat to the security, confidence and self-esteem of both youth and adults in Marathon County.

- 43.5% of high school students who took the 2017 Marathon County Youth Risk Behavior Survey indicate they believe bullying at school is a problem, an increase from 40% in 2015.
- 27% of students said they do not feel they have a teacher or other adult whom thy can talk to if they have a problem.

Broadband Access

Broadband access is crucial to keep up with trends in education, employment, healthcare and public safety.

- 40% of rural Wisconsin does not have broadband, according to the FCC.
- Costs of internet services also tend to be much higher as areas become more rural.

Future Job Growth

Training to job demand will be key to delivering the workforce needed with in-demand skills (technical know-how or specialized skills) to fill upcoming vacancies created by retirement and additional new job growth, especially in health services and education.

- From 2012 to 2022, the North Central Wisconsin Region can expect to add between 14,000 and 16,000 more jobs to its economy.
- There is also a need to promote training and education to not only fill those openings, but to encourage people to move into higher paying jobs.

Marathon County Strategic Plan—2018-2022 Priority Objectives and Strategies

Objective 3.3: Ensure that every child makes it to adulthood with healthy, stability, and growth opportunities.

A. The County Board will approve a resolution that creates a trauma-informed response system for services we provide.
B. Develop a plan to reduce childhood trauma.
C. Create a trauma-informed care system.
D. Develop a comprehensive risk-based assessment to address juvenile offenders to reduce the likelihood of recidivism.
E. Develop a framework for building resilient children.

Objective 3.7: Ensure that every person has local access to effective mental health treatment.

A. Develop a continuum of services within a therapeutic community.
B. Attract and retain qualified treatment providers.
C. Develop more mechanisms to ensure access to treatment across the County.
D. Develop a more comprehensive approach to crisis prevention and serving people (adults and children) in crisis.
E. Develop comprehensive mental health treatment option for criminal justice populations and others with criminogenic treatment needs.
F. Conduct a Community Needs Assessment and create a plan to address identified gaps in service.

Objective 5.2: Promote sound land use decisions that conserve and preserve natural resources in decisions with economic development and growth.

A. Update existing land use policies to address sprawl and natural resource protection.
B. Promote infrastructure development that protects natural resources.
C. Identify and preserve unique regional areas for natural resource protection and environmental remediation.
D. Develop a Land Capability Index.
E. Develop a comprehensive approach to redevelopment and revitalization of older housing stock and older buildings.
F. Acquire land for public park and forest use to retain natural landscapes and resources.

Objective 6.3: Protect and enhance the quantity and quality of potable groundwater and potable surface water supplies.

A. Update the 2001 Groundwater Protection Plan.
B. Continue to develop and implement watershed management plans and Targeted Management plans to minimize the impacts on water quality.
C. Continue to conduct tests and analysis of contaminants in private wells. Consider making such tests mandatory instead of voluntary.
D. Explore alternative methods for snow and ice removal from hard surfaces to reduce the impacts of salt on surface water and groundwater.
E. Create new partnerships with agencies and organizations to further efforts to protect surface water and groundwater.

Objective 7.1: Provide cost-effective and high quality public safety services.

A. Consider the potential to consolidate emergency service agencies.
B. Respond to maltreatment allegations and provide protective services for vulnerable populations.
C. Report every 2 years on the response time with advice for municipalities (ex: consolidation, realignment, or targeted education).

Objective 7.2: Mitigate the impacts of heroin and methamphetamine epidemics in Marathon County through evidence-based practices.

A. Develop a comprehensive approach to address use of heroin and methamphetamine.
B. Complete an inventory of programs, services, and community initiatives in relationship to best practices lead or supported by Marathon County Government that contribute to mitigating and preventing drug misuse and abuse.
C. Identify gaps in programs/services and community initiatives and opportunities for public/private partnerships to further efforts to mitigate and prevent drug misuse and abuse.
D. Identify and advance public policy that would support the mitigation and prevention of drug misuse and abuse among residents in Marathon County.
E. Identify and track data points to measure the impact of drug misuse and abuse among residents of Marathon County.

Objective 8.7: Strive to provide affordable, reliable, high-speed internet access throughout the County.

A. Develop an approach to county-wide high-speed internet access, including: fiber, copper, powerline, cellular, Wi-Fi, new radio frequencies, and other emerging technologies.
B. Promote partnerships between carriers/providers and government through MCDEVCO.
C. Make low interest loans available to carriers/providers that will commit to helping accomplish this objective in Marathon County.
D. Establish a dig once policy for county roadway reconstruction and bridge projects that engages providers in a discussion about whether to include conduit for fiber.
E. Marathon County committee will invite all carriers providing services in Marathon County to present their current coverage, speeds, and costs.

Objective 10.6: Ensure the future availability of a skilled and flexible workforce prepared to meet the needs of both existing and emerging industries and technologies.

A. Work with the North Central Wisconsin Workforce Development Board to ensure a well trained workforce.

Objective 10.8: Encourage development and redevelopment of key employment centers in areas that possess strong market potential, provide good transportation access for workers, and promote the efficient movement of goods.

A. Support efforts to engage the public and private sectors to provide leadership for county economic development efforts.

Objective 10.10: Create an innovative atmosphere to foster an entrepreneurial-supportive environment.

A. Respond to changing economic conditions and opportunities through periodic review and updating of economic development strategies, policies, investments, and programs.
B. Work with MCDEVCO to support a low interest loan fund to finance new farmer startup and existing farmers in adopting new technology.
C. Enhance awareness of MCDEVCO as the primary point of contact for business expansion and start-up information.

Objective 10.12: Maintain infrastructure to support economic growth.

A. Maintain a safe highway network to provide access to all communities in the County.
B. Support technology in the workplace, particularly through access to broadband.
C. Work with municipalities to maintain a competitive inventory of serviced industrial land and office sites.
D. Provide appropriate access for trucks and employees for all business and industrial park site.
E. Pursue federal and state funding to develop a county-wide revolving loan fund to assist communities with clean-up of contaminated sites.
F. Secure state and federal funding to maintain infrastructure and support economic growth.

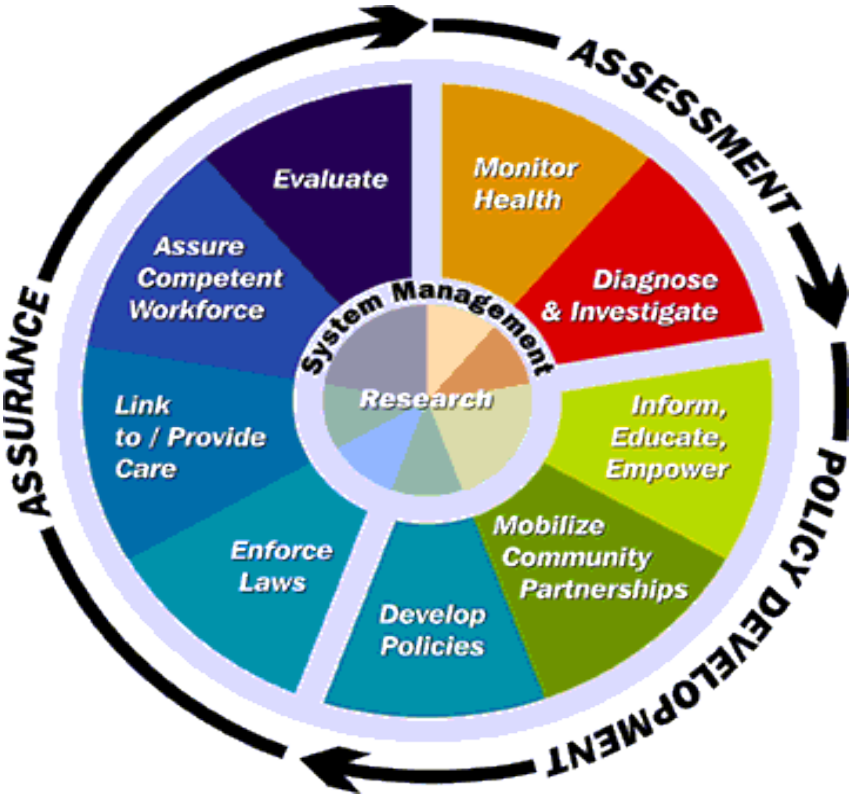
Objective 12.3: Promote cost-effective public services.

A. Implement a plan to increase the number and nature of services accessible to the public online and identify achievable measures to track our progress at engaging the public.
B. Support efforts by local municipalities to establish cooperative service and joint facility arrangements.
C. Continue to provide E-911 dispatch services for all police, fire and EMS agencies in Marathon County.
D. Work with local municipalities and other government agencies to explore opportunities to share costs and/or consolidate public services.
E. Continue to cooperate with other counties on solid waste management.

The 10 Essential Public Health Services

Developed in 1994, the 10 Essential Public Health Services describe the public health activities that all communities should undertake:

1. Monitor health status to identify and solve community health problems
2. Diagnose and investigate health problems and health hazards in the community
3. Inform, educate, and empower people about health issues
4. Mobilize community partnerships and action to identify and solve health problems
5. Develop policies and plans that support individual and community health efforts
6. Enforce laws and regulations that protect health and ensure safety
7. Link people to needed personal health services and assure the provision of health care when otherwise unavailable
8. Assure competent public and personal health care workforce
9. Evaluate effectiveness, accessibility, and quality of personal and population-based health services
10. Research for new insights and innovative solutions to health problems



Source: The Public Health System & the 10 Essential Public Health Services https://www.cdc.gov/stltpublichealth/publichealthservices/essentialhealthservices.html

FOUNDATIONAL PUBLIC HEALTH SERVICES

Adapted from Public Health National Center for Innovations
www.phnci.org

Beginning in Spring 2013, the Public Health Leadership Forum, funded by RWJF and facilitated by RESOLVE, convened to explore a recommendation from the Institute of Medicine report, *For the Public's Health: Investing in a Healthier Future,* to create a "minimum package of services;" in other words, the suite of skills, programs, and activities that must be available in state and local health departments everywhere for the health system to work anywhere, and for which costs could be estimated. The result was a conceptual framework describing both the foundation and programs that no health department should be without.

Foundational Public Health Services Model Version 1.0

Programs/Activities Specific to a Health Department and/or Community's Needs (most of a health department's work "above the line")

Foundational Areas

Communicable Disease Control	Chronic Disease and Injury Prevention	Environmental Public Health	Maternal, Child, and Family Health	Access to and Linkage with Clinical Care

FOUNDATIONAL PUBLIC HEALTH SERVICES

- **Assessment** (including Surveillance; Epidemiology; and Laboratory Capacity)
- **All Hazards Preparedness/Response**
- **Policy Development/Support**
- **Communications**
- **Community Partnership Development**
- **Organizational Competencies** (including Leadership/Governance; Health Equity; Accountability/Performance Management; Quality Improvement; Information Technology; Human Resources; Financial Management; and Legal)

Foundational Capabilities

Foundational capabilities are cross-cutting skills and capacities needed to support the foundational areas, and other programs and activities, key to protecting the community's health and achieving equitable health outcomes.

Foundational areas are those substantive areas of expertise or program-specific activities in all state and local health departments also essential to protect the community's health.

Programs and activities specific to a health department or a community's needs are those determined to be of additional critical significance to a specific community's health and also are supported by the foundational capabilities and areas.

It is also important to note that state and local health department-generated activities, and most resources, are used for the other important programs specific to their jurisdictional needs, described as "above the line," or outside the scope of the foundational capabilities and areas. This work is essential to a given jurisdiction, but is outside the scope of foundational capabilities and areas.

FOUNDATION CAPABILITIES: CROSS-CUTTING SKILLS AND CAPACITIES

Assessment (Surveillance, Epidemiology, Laboratory Capacity, and Vital Records)

- Ability to collect sufficient foundational data to develop and maintain electronic information systems to guide public health planning and decision-making at the state and local level. Foundational data include Behavioral Risk Factor Surveillance Survey (BRFSS), a youth survey (such as YRBS), and vital records, including the personnel and software and hardware development that enable the collection of foundational data.
- Ability to access, analyze, and use data from (at least) seven specific information sources, including (1) U.S. Census data, (2) vital statistics, (3) notifiable conditions data, (4) certain health care clinical and administrative data sets including available hospital discharge, insurance claims data, and Electronic Health Records (EHRs), (5) BRFSS, (6) nontraditional community and environmental health indicators, such as housing, transportation, walkability / green space, agriculture, labor, and education, and (7) local and state chart of accounts.
- Ability to prioritize and respond to data requests, including vital records, and to translate data into information and reports that are valid, statistically accurate, and accessible to the intended audiences.
- Ability to conduct a community and statewide health assessment and identify health priorities arising from that assessment, including analysis of health disparities.
- Ability to access 24/7 laboratory resources capable of providing rapid detection.

All Hazards Preparedness/Response

- Ability and capacity to develop, exercise, and maintain preparedness and response strategies and plans, in accordance with established guidelines, to address natural or other disasters and emergencies, including special protection of vulnerable populations.
- Ability and capacity to lead the Emergency Support Function 8—Public Health & Medical for the county, region, jurisdiction, and state.
- Ability to activate the emergency response personnel and communications systems in the event of a public health crisis; coordinate with federal, state, and local emergency managers and other first responders; and operate within, and as necessary lead, the incident management system.
- Ability to maintain and execute a continuity of operations plan that includes a plan to access financial resources to execute an emergency and recover response.
- Ability to establish and promote basic, ongoing community readiness, resilience, and preparedness by enabling the public to take necessary action before, during, or after a disaster.
- Ability to issue and enforce emergency health orders.
- Ability to be notified of and respond to events on a 24/7 basis.
- Ability to function as a Laboratory Response Network (LRN) Reference laboratory for biological agents and as an LRN chemical laboratory at a level designated by CDC.

Communications

- Ability to maintain ongoing relations with local and statewide media including the ability to write a press release, conduct a press conference, and use electronic communication tools to interact with the media.
- Ability to write and implement a routine communication plan that articulates the health department's mission, value, role, and responsibilities in its community, and support department and community leadership in communicating these messages.
- Ability to develop and implement a risk communication strategy, in accordance with Public Health Accreditation Board Standards, to increase visibility of a specific public health issue and communicate risk. This includes the ability to provide information on health risks and associated behaviors.
- Ability to transmit and receive routine communications to and from the public in an appropriate, timely, and accurate manner, on a 24/7 basis.
- Ability to develop and implement a proactive health education/health prevention strategy (distinct from other risk communications) that disseminates timely and accurate information to the public in culturally and linguistically appropriate (i.e., 508 compliant) formats for the various communities served, including through the use of electronic communication tools.

Policy Development/Support

- Ability to serve as a primary and expert resource for establishing, maintaining, and developing basic public health policy recommendations that are evidence-based, grounded in law, and legally defendable. This ability includes researching, analyzing, costing out, and articulating the impact of such policies and rules where appropriate, as well as the ability to organize support for these policies and rules and place them before an entity with the legal authority to adopt them.
- Ability to effectively inform and influence policies being considered by other governmental and non-governmental agencies within your jurisdiction that can improve the physical, environmental, social, and economic conditions affecting health but are beyond the immediate scope or authority of the governmental public health department.

Community Partnership Development

- Ability to create, convene, and sustain strategic, non-program specific relationships with key health-related organizations; community groups or organizations representing populations experiencing health disparities or inequities; private businesses and health care organizations; and relevant federal, tribal, state and local government agencies and non-elected officials.
- Ability to create, convene, and support strategic partnerships.
- Ability to maintain trust with and engage community residents at the grassroots level.
- Ability to strategically select and articulate governmental public health roles in programmatic and policy activities and coordinate with these partners.
- Ability to convene across governmental agencies, such as departments of transportation, aging, substance abuse/mental health, education, planning and development, or others. To promote health, prevent disease, and protect residents of the health department's geopolitical jurisdiction.
- Ability to engage members of the community in a community health improvement process that draws from community health assessment data and establishes a plan for addressing priorities. The community health

improvement plan can serve as the basis for partnership development and coordination of efforts and resources.

Organizational Competencies (those competencies that any efficient and effective organization possesses)

- Leadership and Governance: Ability to lead internal and external stakeholders to consensus, with movement to action, and to serve as the public face of governmental public health in the department's jurisdiction. Ability to directly engage in health policy development, discussion, and adoption with local, state, and national policymakers, and to define a strategic direction of public health initiatives. Ability to engage with the appropriate governing entity about the department's public health legal authorities and what new laws and policies might be needed.
- Health Equity: Ability to strategically coordinate health equity programming through a high level, strategic vision and/or subject matter expertise which can lead and act as a resource to support such work across the department.
- Accountability, Performance Management, and Quality Improvement: Ability to perform according to accepted business standards and to be accountable in accordance with applicable relevant federal, state, and local laws and policies and to assure compliance with national and Public Health Accreditation Board Standards. Ability to maintain a performance management system to monitor achievement of organizational objectives. Ability to identify and use evidence-based and/or promising practices when implementing new or revised processes, program and/or interventions at the organizational level. Ability to maintain an organization-wide culture of quality improvement using nationally recognized framework quality improvement tools and methods.
- Information Technology Services, including Privacy and Security: Ability to maintain and procure the hardware and software needed to access electronic health information and to support the department's operations and analysis of health data. Ability to support, use and maintain communication technologies needed to interact with community residents. Ability to have the proper systems in place to keep health and human resources data confidential.
- Human Resources Services: Ability to develop and maintain a competent workforce, including recruitment, retention, and succession planning; training; and performance review and accountability.
- Financial Management, Contract, and Procurement Services, including Facilities and Operations: Ability to establish a budgeting, auditing, billing, and financial system and chart of expense and revenue accounts in compliance with federal, state, and local standards and policies. Ability to secure grants or other funding (governmental and not) and demonstrate compliance with an audit required for the sources of funding utilized. Ability to procure, maintain, and manage safe facilities and efficient operations.
- Legal Services and Analysis: Ability to access and appropriately use legal services in planning, implementing, and enforcing public health initiatives, including relevant administrative rules and due process.

FOUNDATIONAL AREAS: PROGRAMMATIVE EXPERTISE AND ACTIVITIES

Communicable Disease Control

- Provide timely, statewide, and locally relevant and accurate information to the health care system and community on communicable diseases and their control.
- Identify statewide and local communicable disease control community partners and their capacities, develop and implement a prioritized communicable disease control plan, and seek funding for high priority initiatives.
- Receive laboratory reports and other relevant data, conduct disease investigations, including contact tracing and notification, and recognize, identify, and respond to communicable disease outbreaks for notifiable conditions in accordance with local, national and state mandates and guidelines.

- Assure the availability of partner notification services for newly diagnosed cases of syphilis, gonorrhea, and HIV according to CDC guidelines.
- Assure the appropriate treatment of individuals who have actual tuberculosis, including the provision of directly-observed therapy in accordance with local and state laws and Centers for Disease Control and Prevention (CDC) guidelines.
- Support the recognition of outbreaks and other events of public health significance by assuring capacity for the identification and characterization of the causative agents of disease and their origin, including those that are rare and unusual, at the appropriate level.
- Coordinate and integrate categorically-funded communicable disease programs and services.

Chronic Disease and Injury Prevention

- Provide timely, statewide, and locally relevant and accurate information to the health care system and community on chronic disease and injury prevention and control.
- Identify statewide and local chronic disease and injury prevention community partners and their capacities, develop and implement a prioritized prevention plan, and seek funding for high priority initiatives.
- Reduce statewide and community rates of tobacco use through a program that conforms to standards set by state or local laws and CDCs Office on Smoking and Health, including activities to reduce youth initiation, increase cessation, and reduce secondhand smoke exposure, as well as exposure to harmful substances.
- Work actively with statewide and community partners to increase statewide and community rates of healthy eating and active living through a prioritized approach focusing on best and emerging practices aligned with national, state, and local guidelines for healthy eating and active living.
- Coordinate and integrate categorically-funded chronic disease and injury prevention programs and services.

Environmental Public Health

- Provide timely, statewide, and locally relevant and accurate information to the state, health care system, and community on environmental public health issues and health impacts from common environmental or toxic exposures.
- Identify statewide and local community environmental public health partners and their capacities, develop and implement a prioritized plan, and seek funding for high priority initiatives.
- Conduct mandated environmental public health laboratory testing, inspections, and oversight to protect food, recreation sites, and drinking water; manage liquid and solid waste streams safely; and identify other public health hazards related to environmental factors in accordance with federal, state, and local laws and regulations.
- Protect workers and the public from chemical and radiation hazards in accordance with federal, state, and local laws and regulations.
- Participate in broad land use planning and sustainable development to encourage decisions that promote positive public health outcomes (e.g. housing and urban development, recreational facilities, and transportation systems) and resilient communities.
- Coordinate and integrate categorically-funded environmental public health programs and services.

Maternal/Child/Family Health

- Provide timely, statewide, and locally relevant and accurate information to the health care system and community on emerging and on-going maternal child health trends.
- Identify local maternal and child health community partners and their capacities; using life course expertise and an understanding of health disparities, develop a prioritized prevention plan; and seek funding for high priority initiatives.
- Identify, disseminate, and promote emerging and evidence-based information about early interventions in the prenatal and early childhood period that promote lifelong health and positive social-emotional development.
- Assure newborn screening as mandated by a state or local governing body including wraparound services, reporting back, following up, and service engagement activities.
- Coordinate and integrate categorically funded maternal, child, and family health programs and services.

Access to / Linkage with Clinical Health Care

- Provide timely, statewide, and locally relevant and accurate information to the health care system and community on access and linkage to clinical care (including behavioral health), health care system access, quality, and cost.
- Inspect and license health care facilities, and license, monitor, and discipline health care providers, where applicable.
- In concert with national and statewide groups and local providers of health care, identify health care partners and competencies, develop prioritized plans for increasing access to health homes and quality health care, and seek funding for high priority policy initiatives.
- Coordinate and integrate categorically-funded clinical health care.

Public Health 3.0

A Call to Action to Create a 21st Century Public Health Infrastructure

Office of the Assistant Secretary for Health
U.S. Department of Health and Human Services

PUBLIC HEALTH 3.0

Table of Contents

Letter from the Acting Assistant Secretary for Health

We have made great strides in the last several years to expand health care coverage and access to medical care and preventive services, but these successes have not yet brought everyone in America to an equitable level of improved health. Today, a person's zip code is a stronger determinant of health than their genetic code. In a nation as wealthy as the United States, it is unconscionable that so many people die prematurely from preventable diseases; even worse are the health disparities that continue to grow in many communities.

High-quality health care is essential for treatment of individual health conditions, but it is not the only tool at our disposal. In order to solve the fundamental challenges of population health, we must address the full range of factors that influence a person's overall health and well-being. From education to safe environments, housing to transportation, economic development to access to healthy foods—the social determinants of health are the conditions in which people are born, live, work, and age.

Public Health 3.0 recognizes that we need to focus on the social determinants of health in order to create lasting improvements for the health of everyone in America. Public health is what we do together as a society to ensure the conditions in which everyone can be healthy. We often think of the health care industry when we think of health, but building healthy communities requires strategic collaboration across all sectors. When we build a complete infrastructure of healthy communities, we can begin to close the gaps in health due to race or ethnicity, gender identity or sexual orientation, zip code or income.

For Public Health 3.0 to succeed, local and state public health leaders must step up to serve as Chief Health Strategists for their communities, mobilizing community action to strengthen infrastructure and form strategic partnerships across sectors and jurisdictions. These partnerships are necessary to develop and share sustainable resources and to leverage data for action that can address the most urgent community health needs.

Public Health 3.0 exemplifies the transformative success stories that many pioneering communities across the country have already accomplished. The challenge now is to institutionalize these efforts and replicate these triumphs across all communities for all people.

Our collaborative action must ensure, for the first time in history, that every person in America has a truly equal opportunity to enjoy a long and healthy life. This report outlines the initial steps we can take to get there. I hope you will join me in Public Health 3.0.

Sincerely,

Karen B. DeSalvo, MD, MPH, MSc
Assistant Secretary for Health (acting)
U.S. Department of Health and Human Services

Executive Summary

Public health is what we do together as a society to ensure the conditions in which everyone can be healthy. Though there are many important sectors and institutions with a key role to play, the governmental public health infrastructure is an essential part of a strong public health system. But local public health agencies have been under extreme stress due to significant funding reductions during the Great Recession, changing population health challenges, and in certain circumstances changes brought on by the Affordable Care Act (ACA). In addition, they are increasingly working with others in the broader health system to address the social determinants of health in response to the mounting data on disparities by race/ethnicity, gender identity or sexual orientation, interpersonal violence and trauma, income, and geography.

To meet these new challenges head on, local public health has been reinventing itself in partnership with others in their communities, and is undergoing a transformation into a new model of public health we call Public Health 3.0 (PH3.0). In this model, pioneering local public health agencies are building upon their historic success at health improvement and are adding attention to the social determinants of health—the conditions in the social, physical, and economic environment in which people are born, live, work, and age [1] —in order to achieve health equity. They do this through deliberate collaboration across both health and non-health sectors, especially with non-traditional partners, and, where appropriate, through assuming the role of Chief Health Strategist in their communities.

In 2016, the U.S. Department of Health and Human Services (HHS) Office of the Assistant Secretary for Health (OASH) launched an initiative to lay out the vision for this new model of public health, to characterize its key components, and to identify what actions would be necessary to better support the emergence of this transformed approach to public health, with particular attention to the efforts needed to strengthen the local governmental public health infrastructure as a critical and unique leader in advancing community health and well-being.

To learn more, OASH visited five communities that are aligned with the PH3.0 vision. In these regional listening sessions, local leaders shared their strategies and exchanged ideas for moving PH3.0 forward. Attendees represented a diverse group of people working in public health and other fields, including philanthropy and nonprofit organizations, businesses, social services, academia, the medical community, state and local government agencies, transportation, and environmental services.

This report summarizes key findings from these regional dialogues and presents recommendations to carry PH3.0 forward, organized in the following five themes:

1. Strong leadership and workforce
2. Strategic partnerships
3. Flexible and sustainable funding
4. Timely and locally relevant data, metrics, and analytics
5. Foundational infrastructure

Recommendations

Based upon what we have heard and seen from the field, we put forth the following set of recommendations to realize the PH3.0 vision for all communities in the United States:

1. Public health leaders should embrace the role of **Chief Health Strategist for their communities**—working with all relevant partners so that they can drive initiatives including those that explicitly address "upstream" social determinants of health. Specialized Public Health 3.0 training should be available for those preparing to enter or already within the public health workforce.

2. Public health departments should engage with community stakeholders—from both the public and private sectors—to form vibrant, **structured, cross-sector partnerships** designed to develop and guide Public Health 3.0–style initiatives and to foster shared funding, services, governance, and collective action.

3. Public Health Accreditation Board (PHAB) criteria and processes for department **accreditation should be enhanced** and supported so as to best foster Public Health 3.0 principles, as we strive to ensure that every person in the United States is served by nationally accredited health departments.

4. Timely, reliable, granular (i.e., sub-county), and **actionable data** should be made accessible to communities throughout the country, and clear **metrics** to document success in public health practice should be developed in order to guide, focus, and assess the impact of prevention initiatives, including those targeting the social determinants of health and enhancing equity.

5. **Funding for public health should be enhanced and substantially modified**, and innovative funding models should be explored so as to expand financial support for Public Health 3.0–style leadership and prevention initiatives. Blending and braiding of funds from multiple sources should be encouraged and allowed, including the recapturing and reinvesting of generated revenue. Funding should be identified to support core infrastructure as well as community-level work to address the social determinants of health.

Introduction

Progress on Health Improvement

The United States has made enormous progress during the past century in improving the health and longevity of its population through effective public health actions and sizable investments in evidence-based preventive services and high-quality clinical care. In 2014, life expectancy at birth was 78.8 years, 10 years longer in lifespan than the 1950s.[2] Smoking rates among adults and teens are less than half what they were 50 years ago.[3] The Affordable Care Act (ACA) has dramatically expanded health insurance coverage, reducing the uninsurance rate to a historic low of of 9.1% in 2015, 16.2 million fewer uninsured Americans than in 2013.[4] Continuous health insurance reform efforts have also driven improvement in health care quality and have slowed the growth rate of health care costs.

Significant Health Gaps Remain

However, despite nearly $3.0 trillion in annual health care spending—almost twice as much as a percentage of gross domestic product as the rest of the world—Americans have shorter lifespans and fare worse in many health indicators, including obesity and diabetes, adolescent pregnancy, drug abuse-related mortality, vaccination rates, injuries, suicides, and homicides.[5] The Centers for Disease Control (CDC) recently reported that the historical steady gain in longevity in the United States has plateaued for three years in a row.[6] Further, race/

ethnicity disparities persist in life expectancy, vaccination rates, infant mortality,[7] and exposure to pollutants.[8] Many of these vexing challenges require solutions outside of the health care system, and require more broad-based actions at the community level.

Figure 1
Short Distances to Large Gaps in Health

Source: Chapman DA, Kelly L, Woolf SH. Life Expectancy Maps. 2015-2016. VCU Center on Society and Health. http://www.societyhealth.vcu.edu/maps

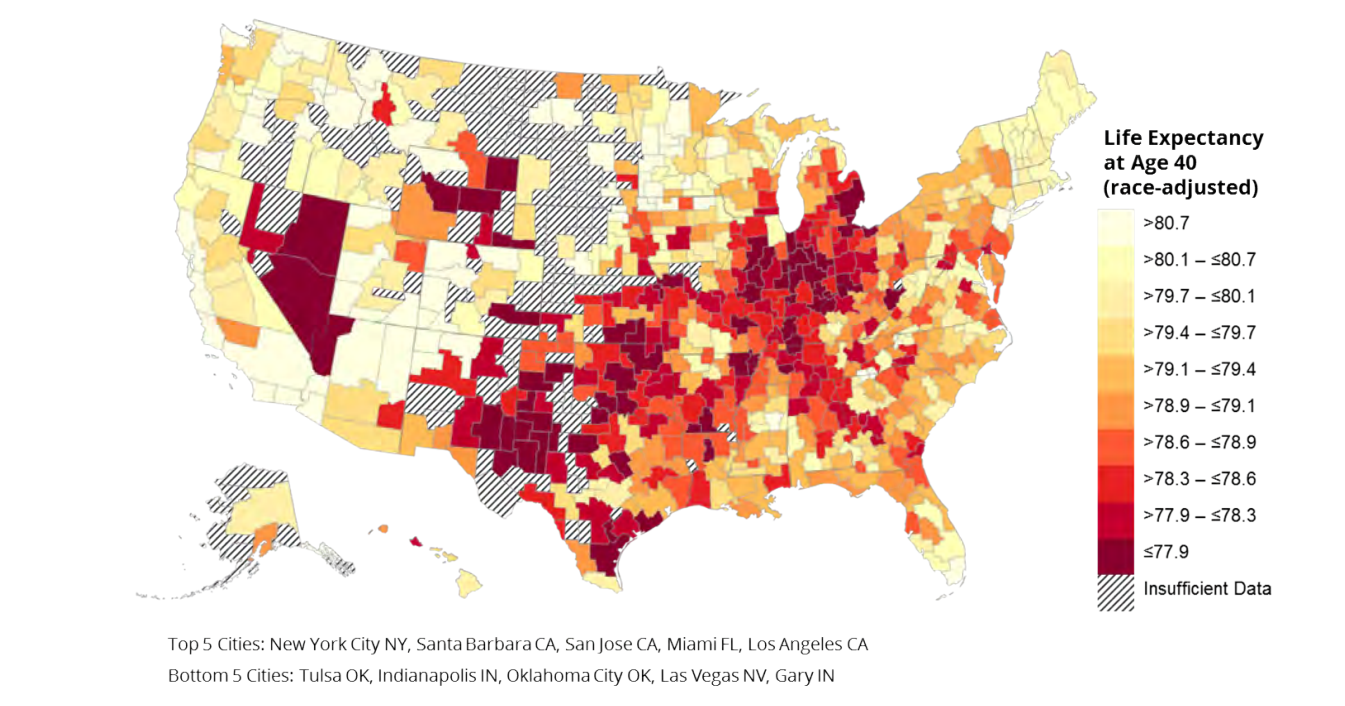
Key Influence of Social Determinants of Health

The lifespan of people living in different parts of the country is a powerful reminder that the opportunity to be healthy often depends more on one's zip code than one's genetic code. Researchers (Figure 2) found that the gap in life expectancy between people with the highest and lowest incomes is narrower in some communities but wider in others. Their data showed significant variations in life expectancy and health risks across different regions in the country.[9] Even within a city, life expectancy can vary by neighborhood. Mapping life expectancies in several cities across the United States, researchers illustrated that in some cases, life expectancy can differ by as much as 20 years in neighborhoods just a few miles apart from one another. These data suggest that investing in safe and healthy communities matters, especially for the most disadvantaged persons.[10] Achieving the goal of Healthy People requires addressing social determinants of health, which includes both social and physical environments where people are born, live, work, and age.

Meanwhile, many pioneering communities are already taking action to do exactly that. These communities have built coalitions to address their priority health challenges such as tobacco use in public spaces; educational attainment and economic opportunity; community safety; substance use disorders and mental health conditions; healthy built environment; and hazardous exposures in and around their homes and neighborhoods.

These innovative, multi-sector approaches to health reflect an understanding of the conditions and factors that are associated with health. Scholars estimate that behavioral patterns, environmental exposure, and social circumstances account for as much as 60% of premature deaths.[11] These factors shape the contexts of how people make choices every day—and reflect the social and physical environments where these choices are made. Driven by policy incentives toward population health, our health care system is transforming from a system focused on episodic, non-integrated care toward one that is value-

Figure 2 | Geography of Life Expectancy in the Bottom Income Quartile



Source: The Health Inequality Project. https://healthinequality.org

based and increasingly community integrated.[12] There are tremendous opportunities for the health care and public health systems to be better integrated in order to produce substantial and lasting health for individuals, communities, and populations.[13] The CDC developed a framework to conceptualize such integration spanning three "buckets" of prevention—traditional clinical preventive interventions, interventions that extend care outside the care setting, and total population or community-wide interventions to achieve the most promising results for population health (Figure 3. The Three Buckets of Prevention).[14] Regarding to the second and the third "buckets", CDC recently launched the Health Impact in 5 Years (HI-5) initiative, highlighting non-clinical, community-wide approaches addressing context factors or social determinants of health that have shown positive health impacts within five years and evidence of cost effectiveness or cost savings. These resources showed that community-wide actions addressing upstream determinants are not only evidence-based and feasible, but also of good value.

However, public health and social services have been immensely underfunded. Compared to its spending on health care, the United States has made lower investments toward upstream, non-medical determinants of health—social services such as income support, education, transportation, interpersonal violence and trauma, controlling hazardous environmental exposure and housing programs—and this has had detrimental effects on health.[15] States that spent more on social services and public health, relative to

Figure 3 | The Three Buckets of Prevention

Source: Auerbach, John. "The 3 buckets of prevention." Journal of Public Health Management and Practice 22.3 (2016):215-218

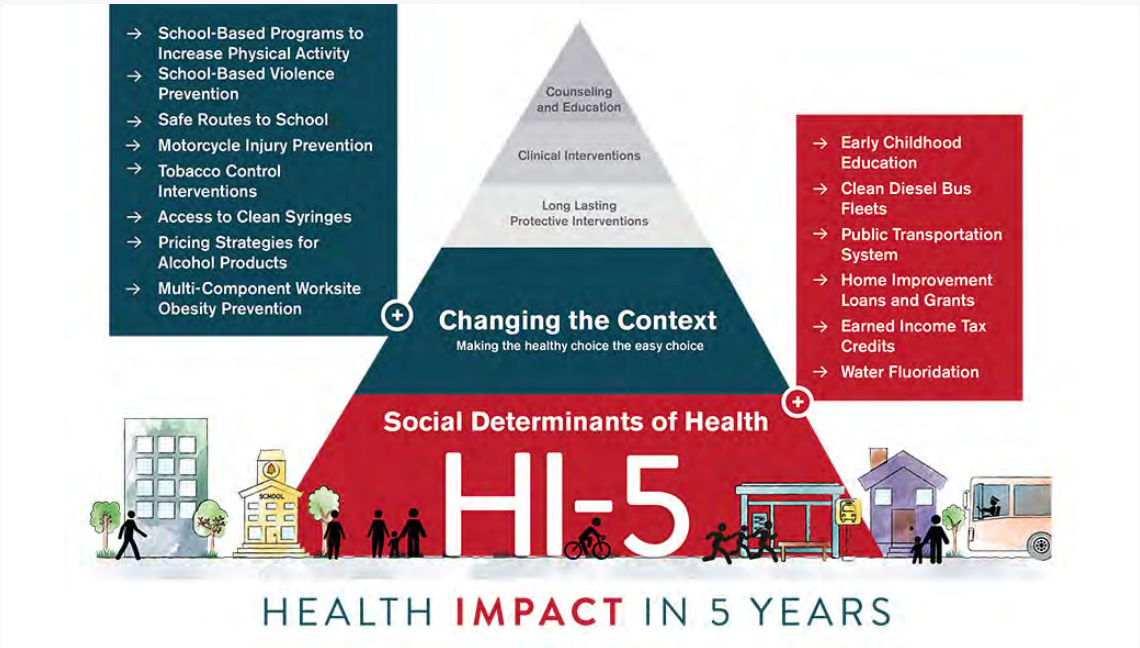
spending on medical care, had significantly better subsequent health outcomes.[16,17] Unfortunately, the 2008 recession precipitated a large and sustained reduction in state and local spending on public health activities.[18] Nearly two-thirds of the U.S. population in 2012 lived in jurisdictions in which their local health department reported budget-related cuts to at least one critical program area.[19]

The 2002 Institute of Medicine (IOM) report *The Future of the Public's Health in the 21st Century*[20] called for strengthening governmental public health capabilities and requiring accountability from and among all sectors of the public health system. The need to strengthen the public health system, however, is often only revealed in the context of disasters and crises. For example, in the aftermath of Hurricane Katrina in the City of New Orleans, it became apparent that restoring health care services alone was insufficient in restoring New Orleans' health system. For a community to address fundamental drivers of health while establishing readiness and resilience to crises, it requires strong public health infrastructure, effective leadership, usable data, and adequate funding. The water crisis in Flint, Michigan,[21] painfully reminded us of the costly consequences when environmental determinants of public health are not at the center of decision-making that impacts the health and safety of the public.

It is clear that to improve the health of all Americans, we must address factors outside of health care. Doing so means we must build upon past successes in public health and continue to attend to those issues, but also expeditiously work in a multi-sector fashion to get closer to the true definition of public health:

> **Public health is what we do together as a society to ensure the conditions in which everyone can be healthy.[22]**

Figure 4 | Health Impact in 5 Years



Source: U.S. Centers for Disease Control and Prevention, Health Impact in Five Years. http://www.cdc.gov/hi5

Public Health 3.0: A Renewed Approach to Public Health

To meet these new challenges, state and local public health entities have been innovating in partnership with their local communities a new model of public health. In this approach, pioneering local communities are building upon their historic success at health improvement, and adding a focus on social and environmental determinants of health to achieve health equity. They do this through deliberate collaboration across sectors, especially with non-traditional partners, and through assuming the role of Chief Health Strategist in their communities.

This expanded mission of public health—to ensure the conditions in which everyone can be healthy—was underscored in the IOM report *The Future of Public Health*[23] nearly two decades ago, and it remains salient today. Pioneering communities across the country are demonstrating how this can be achieved, particularly with local governmental public health in the lead or playing a prominent role. **We call this enhanced scope of practice Public Health 3.0.**

This evolved model of public health builds upon the extraordinary successes of our past. **Public Health 1.0** refers to the period from the late 19th century through much of the 20th century, when modern public health became an essential governmental function with specialized federal, state, local, and tribal public health agencies. During this period, public health systematized sanitation, improved food and water safety, expanded our understanding of diseases, developed powerful new prevention and treatment tools such as vaccines and antibiotics, and expanded capability in areas

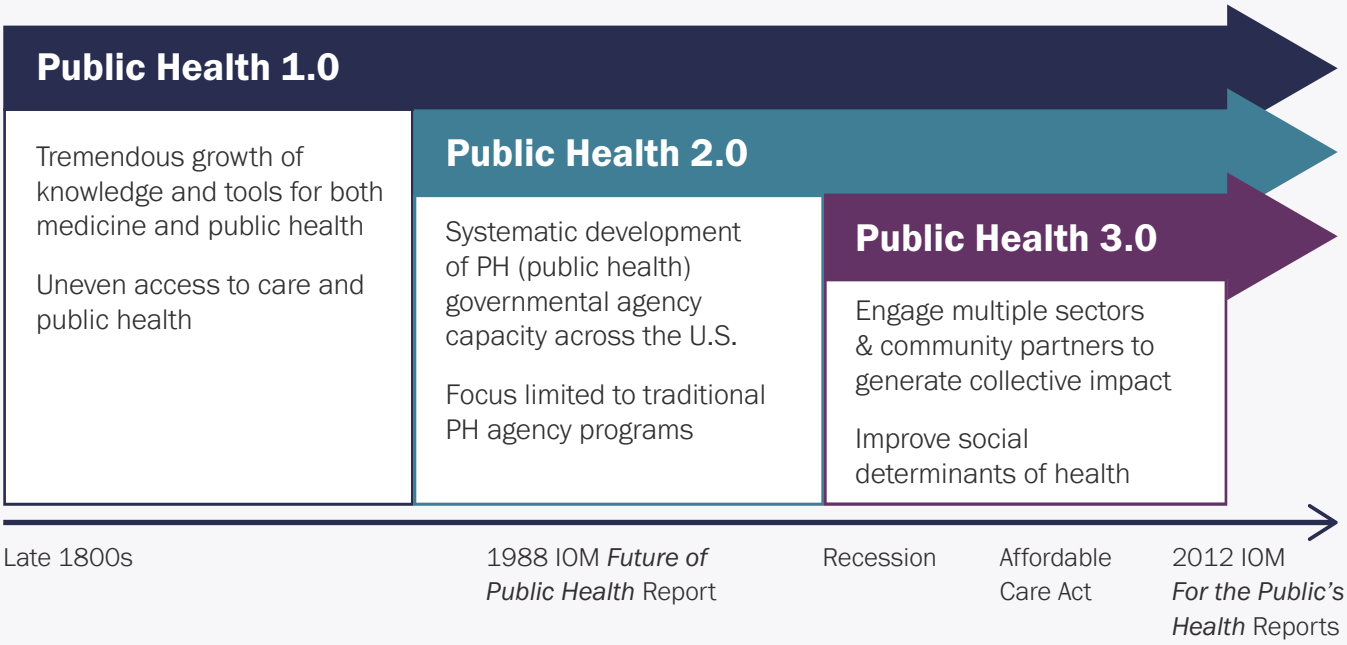
such as epidemiology and laboratory science. This scientific and organizational progress meant that comprehensive public health protection—from effective primary prevention through science-based medical treatment and tertiary prevention—was possible for the general population.

Public Health 2.0 emerged in the second half of the 20th century and was heavily shaped by the 1988 IOM report *The Future of Public Health*.[24] In that seminal report, the IOM described the many challenges faced by the American public health system. The report posited that public health authorities were encumbered by the demands of providing safety-net clinical care and unprepared to address the rising burden of chronic diseases and new threats such as the HIV/AIDS epidemic. The report's authors declared, "This nation has lost sight of its public health goals and has allowed the system of public health activities to fall into disarray."

With this call to action, the field of public health defined a common set of goals and core functions, and developed and implemented target capacities and performance standards for governmental public health agencies at every level. During the 2.0 era, governmental public health agencies became increasingly professionalized and standardized.

Public Health 3.0 refers to a new era of enhanced and broadened public health practice that goes beyond traditional public department functions and programs. Cross-sector collaboration is inherent to the PH3.0 vision, and the Chief Health Strategist role requires high-achieving health entities with the skills and capabilities to drive such collective action.[25] Only through inter-organizational

Figure 5 | Evolution of Public Health Practices



Source: DeSalvo et. al. (2016) Public Health 3.0: Time for an Upgrade. AJPH

There are five critical dimensions in the enhanced scope of public health practice:

Strong leadership and workforce

Strategic partnerships

Flexible and sustainable funding

Timely and locally relevant data, metrics, and analytics

Foundational infrastructure

cooperation can policy and systems-level actions be taken to affect upstream determinants of health. Several pioneering U.S. communities are already experimenting with this expansive approach to public health, and several national efforts are also supporting this new approach.[26]

Despite successes by many innovative local jurisdictions, these pioneering PH3.0 efforts face challenges in advancing and sustaining their work. At present, they have not had a shared, defining vision or framework. Many have developed in relative isolation, without opportunity to share best practices and lessons learned. There is not a central repository of tool kits or information to support their work. Finally, key elements needed to support their efforts such as flexible funding and access to timely data are not readily or systematically available.

Current and future public health leaders will need to embrace the Chief Health Strategist role in their communities, collaborating with stakeholders who can positively affect social determinants of health. In many communities the local health officer will serve the role of Chief Health Strategist, but this may not necessarily always be the case—indeed Chief Health Strategists can come from other sectors. Developing strong strategic partnerships with players in other sectors is paramount to the success of this approach. PH3.0 will need both new sources of funding and flexible funding mechanisms to support its cross-sector, social determinants–oriented work. To guide community efforts, current, geographically specific, and granular data will be needed, as well as practical, readily accessible tools for data analysis and an enhanced informatics workforce capacity. Finally, a strengthened public health infrastructure needs to be designed and institutionalized, so that cross-sectoral collaborative efforts survive changes in public health, community, and political leadership.

This report describes examples of PH3.0 based on a series of regional meetings held by OASH across the United States.

Chief Health Strategist

...will lead their community's health promotion efforts in partnership with health care clinicians and leaders in widely diverse sectors, and be deeply engaged in addressing the causes underlying tomorrow's health imperatives. The emphasis will be on catalyzing and taking actions that improve community well-being, and playing a vital role in promoting the reorientation of the health system towards prevention and wellness.

Chief health strategists will participate in and support community-based coalitions that examine health data, set goals, and develop plans to improve health. They will enlist civic and other community leaders such as key local businesses and the Chamber of Commerce as well as leaders at the grassroots level to help carry out those plans.

Source: Public Health Leadership Forum, The High Achieving Health Department in 2020 as the Community Chief Health Strategist, 2015. http://www.resolv.org/site-healthleadershipforum/hd2020/

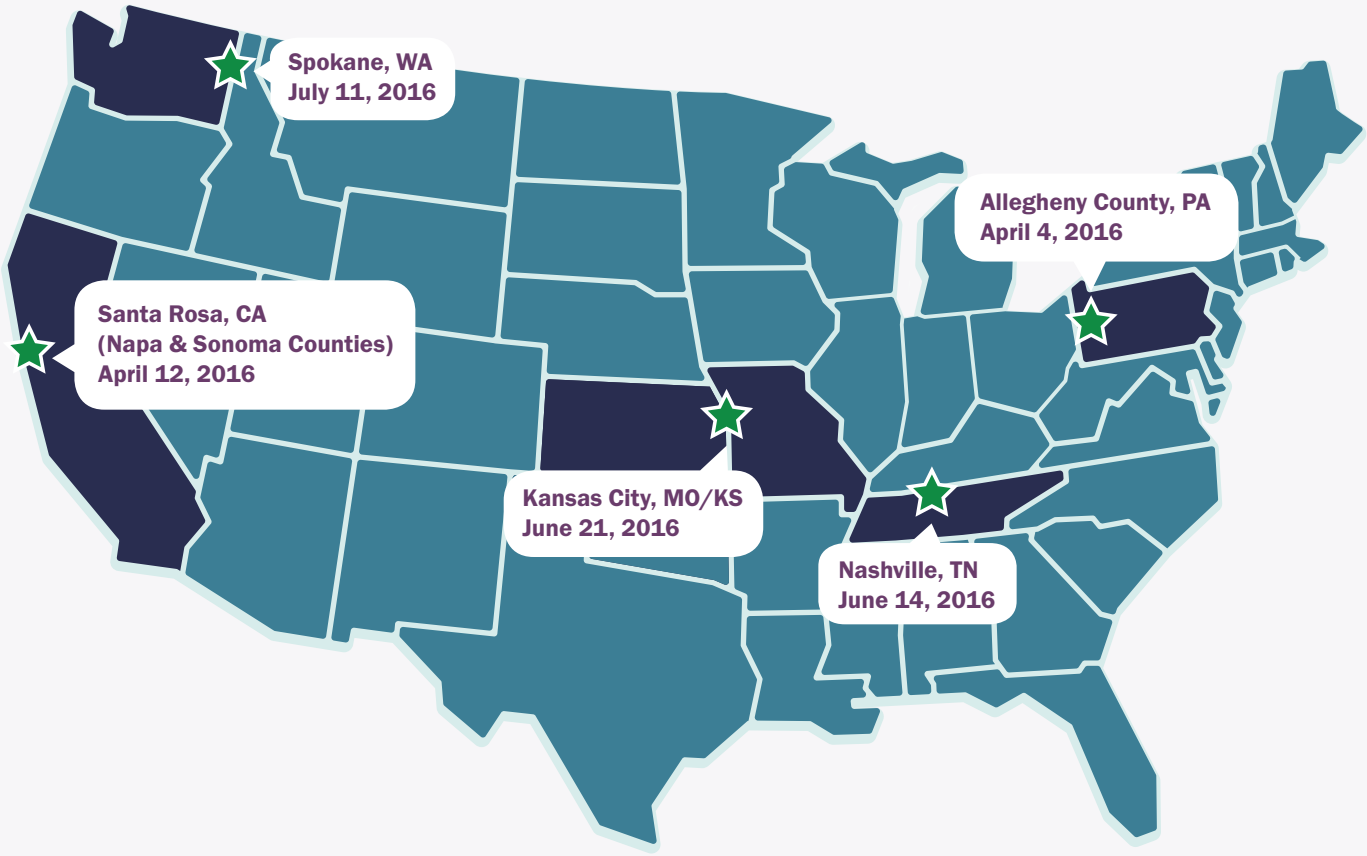
The National Dialogue

At the core of PH3.0 is the notion that local communities will lead the charge of taking public health to the next level and ensuring its continued success and relevance. In 2016, OASH engaged with stakeholders across a variety of sectors—state and local public health (including the Association for State and Territorial Public Health Officials [ASTHO] and the National Association of City and County Health Officials [NACCHO]), philanthropic and nonprofit groups, businesses, social service organizations, academia, the medical community, state and local government agencies, transportation, environmental services, and others. OASH also engaged directly with state and local health officers, both those who had seen success in innovative, outside-the-box approaches to implementing public health practice and those who had experienced challenges.

Spotlight and Feedback: Public Health 3.0 Regional Meetings

Many communities across the U.S. are taking innovative approaches to public health and have developed cross-sector, collaborative structures to address the social, environmental, and economic determinants of health. Over spring and summer 2016, OASH leadership visited five of these geographically and demographically diverse communities.

Figure 6 | Five communities across the U.S. that are taking innovative approaches to public health.



The purpose of the regional meetings was three-fold:

1. For local leaders to share their knowledge, strategies, and ideas for moving PH3.0-style work forward
2. To hear about the successes and challenges for each of the five PH3.0 domains not only from host communities, but also from others in the region
3. To gather information about how the broader public health system could support local governmental public health as it transformed into a PH3.0 model

Meeting participants represented a wide array of expertise beyond public health and health care. While the majority of participants were from the local communities, we welcomed people and organizations from across the regions. Though participants noted unique challenges and successes, many common themes emerged across the meetings. These key findings are summarized below.

Key Findings: Strong Leadership and Workforce

PH3.0 relies on not only a strong, diverse, and policy-oriented public health workforce, but also leaders who can work in new ways to build structured coalitions, leverage actionable data and evidence, and communicate new approaches

within and outside of the traditional health sector. Meeting participants discussed several strategies for developing new public health leaders and for inspiring the existing public health workforce to transform the public health system in their communities.

1. Building a strong public health workforce pipeline.

Participants noted the challenges in finding sufficient incoming talent and the high turnover rates in local public health. They suggested innovative approaches, enhanced partnerships, and new incentives to attract and retain talent. Academic institutions can establish mentorship programs, expand internships to include non-traditional opportunities, or work with federally funded job training programs. Opportunities also exist within primary education; some participants also suggested integrating public health into science, technology, engineering, and mathematics (STEM) curricula.

> “Public health is now more central to all the health sciences disciplines than ever before.”
>
> *— Participant, Spokane*

For public health professionals already in the workforce, new benefits or incentives (both financial and non-financial) may encourage them to stay in the field. Public health entities should create opportunities for growth within their organizations and celebrate individual successes.

2. Leading for collective impact.[27]

Strategic cross-sector partnerships drive PH3.0-style efforts, but the skills necessary to form and cultivate these partnerships may be foreign to public health practitioners who have long operated in silos. Existing opportunities for developing collaboration, leadership, and other essential skills should be explored. This can serve as a means to both grow expertise in the public health field and involve local stakeholders in achieving collective impact. In addition, public health and partners in other sectors can identify opportunities for exchanging skills and cross-pollinate their professional development activities. To build in-house capacity, participants suggested that public health entities also consider providing formal online training and certification opportunities.

> “With PH3.0, our existing leaders need to shift, to step out of the box of their own personality and be able to serve the team, serve the connections.”
>
> *— Participant, Santa Rosa*

3. Thinking outside of the box.

Several participants noted the importance for public health leaders to think creatively in order to seize critical opportunities for growth. Forward-thinking businesses may serve as models for PH3.0. For example, the incubator system popularized by the technology industry allows established businesses to provide management training to help startup companies succeed. Similarly, participants suggested recruiting people who have skills, training, or education that are not traditional to the public health

Bright Spot of Innovation: *Live Well Allegheny*

In January 2014, Allegheny County Executive Rich Fitzgerald launched *Live Well Allegheny*, a response to county residents who expressed a desire to develop a healthier lifestyle.

The *Live Well Allegheny* campaign aims to improve the health and well-being of people in Allegheny County by addressing behaviors that lead to chronic diseases. The initiative, now led by the Board of Health and Allegheny Health Department Director Karen Hacker, asks county residents to increase physical activity, decrease cigarette smoking, and take a proactive role in managing their own health. Ultimately, the campaign will also incorporate efforts to improve mental wellness, personal and community safety, preparedness, quality of life, education, and health literacy.

Live Well Allegheny brings together local stakeholders across Allegheny County, including municipalities, school districts, government agencies, community-based organizations, academia, and the private sector, to improve the community's health. It includes programs such as *Live Well Communities*, Live Well Schools, *Live Well Restaurants*, and *Live Well Workplaces*. To achieve *Live Well* status, each community or entity must demonstrate its commitment to achieving campaign goals.

To date, *Live Well Allegheny* has:

1. 22 *Live Well* communities
2. 5 *Live Well* school districts (with more in progress)
3. 10 *Live Well* restaurants
4. 1 *Live Well* workplace
5. 112 partners committed to *Live Well*

For more information, read the 2014–2015 Live Well Allegheny Biannual Report.

field. Community advocates and organizers, for example, embody many qualities that could support PH3.0-style efforts: authentic community voices, relationships with community members, enthusiasm for effecting change, and the ability to grow a grassroots movement. Business and entrepreneurial experience represent another example. In addition, by forging partnerships with non-traditional collaborators like universities and business mentorship programs, health departments can expand their capacity and their skill sets.

Key Findings: Strategic Partnerships

Participants identified building blocks for successful strategic partnerships across sectors, including key partnership attributes, strategies for engaging partners, and partners critical to PH3.0-style initiatives.

1. Establishing backbone entities for strategic planning and funding.

Participants noted that a politically neutral backbone entity is an essential component of any successful collaborative effort. The entity would convene and collect input from partners, mobilize funding, and drive action toward shared goals. Participants noted that backbone entities are most effective when they have political and social capital, including the public's trust and respect.

Participants warned against the pitfall of unstructured collaboratives in which group members only engage in discussion without committing to formal working partnerships. The backbone organization requires structure, including timelines, work plans, and most importantly, concrete mechanisms to pool and deploy funding and other resources.

> "It doesn't matter who you get into a room, if you don't have a doer, it will be a lot of ideas but not how you accomplish them. . . If people in the room don't have the power to implement, it's just going to be a lot of talk."
>
> *— Participant, Nashville*

2. Cultivating new and existing relationships.

Participants noted that PH3.0-style initiatives hinge on authentic and strong relationships to yield sustained collaboration and impact, and should align the values of each participating organization's missions.

Developing trust and communication takes time—particularly when cultivating new relationships. Participants suggested that convening organizations invest this time strategically. They urged conveners not to overlook seemingly minor steps like meeting face to face, clearly explaining each partner's value, setting expectations for how each partner will contribute, and setting deadlines for meeting the group's goals.

> "This is relational work, we're all people. It never hurts to take a one-off meeting, meet face to face with people."
>
> *— Participant, Santa Rosa*

3. Identifying collective goals and defining value.

Participants noted that collaborations are successful when they bring together entities with diverse, relevant expertise. Conveners should also consider non-traditional partners, who can often add important value and insight. At times, crises serve as opportunities to catalyze partnerships and stimulate collaborative efforts by producing a collective goal to resolve a pressing community challenge; that collective goal can inspire and drive collective action.

Bright Spot of Innovation: *Healthy Kansas City*

In 2014, more than 100 local stakeholders came together to identify ways for the business community to become active leaders in health. That initial strategy session led to Healthy KC, a partnership of the Greater Kansas City Chamber of Commerce, Blue Cross Blue Shield of Kansas City, and other regional health organizations. The collaborative aims to create a culture of health in Greater Kansas City.

Healthy KC selects interventions based on local issues and community needs. In the Kansas City region, tobacco use among youth is a significant problem: nearly 25% of high school students in Missouri and Kansas are current tobacco users. In response, Healthy KC launched the Tobacco 21|KC initiative, an offshoot of a national effort to increase the minimum age for the sale and purchase of tobacco products from 18 to 21. Healthy KC initially set a goal for five communities to adopt Tobacco21 ordinances by 2018, and they have vastly exceeded that goal: as of June 2016, 15 municipalities had jumped on board. Tobacco21 ordinances now cover 1.2 million people and have resulted in 1,000 fewer smokers each year.

Healthy KC credits effective partnerships with making Tobacco 21|KC a success. Because local stakeholders—including the public health community, school districts, businesses, and chambers of commerce—have embraced and advocated for the initiative, city councils have been more willing to adopt these ordinances. The business industry has a vested interest in reducing tobacco use since each employee who smokes costs employers an average of more than $6,000.

Healthy KC has also developed initiatives to promote mental health, workplace wellness, healthy eating, and active living.

Participants noted the importance of identifying the value a potential partner adds to the group, in addition to defining the expected return on investment for the partner. Several participants recommended proactively answering the question, "What's in it for me?" For example, one participant described how Sonoma County successfully engaged the business community in health care workforce development. Since the decrease in skilled workers is a key concern of the business community, the group was able to define the value proposition of growing the local pipeline for skilled health care professionals.

Participants identified other specific sectors that have not traditionally worked with public health but

are relevant to PH3.0-style collaboratives. These include but are not limited to:

- Behavioral health agencies
- Chamber of commerce and/or individual business owners or developers
- Community- and faith-based organizations
- Early care and education
- Elected officials and legislators
- Employers
- Funders
- Housing
- Human services
- Labor unions
- Media and marketing professionals
- Public safety and law enforcement
- Schools and departments of education
- Substance use disorder treatment programs
- Third-party payers
- Transportation
- Tribal entities

One participant noted that a critical partner may also be "the person you never thought to ask." This can be a helpful reminder to think creatively about goals and who else has a stake in achieving them.

> "Partnerships don't evolve on their own—they take time, effort, commitment, and a common goal."
>
> *— Participant, Kansas City*

Key Findings: Flexible and Sustainable Funding

Funding enables groups to implement the programs, training, or infrastructure changes necessary to achieve a collective goal. However, local initiatives perpetually struggle to secure sufficient funding and resources, and many funding sources are categorical or disease specific. Strategies for leveraging sustainable and flexible funding that support PH3.0-style work were discussed.

1. Leveraging shared goals.

Participants suggested that the backbone entity should identify funders whose missions resonate with those of the initiative while cautioning against changing the mission or goal to fit a funding source. As with any partnership, developing and sustaining connections with funders takes time. In some cases, funders invested in an initiative may have over time become active partners.

> "We need flexible and smarter funding for shared goals. We need to identify shared goals on the front end so we don't head down parallel paths without conversation in between."
>
> *— Participant, Spokane*

Participants urged conveners to consider unconventional partners, such as venture capital firms committed to social change, and non-monetary resources, like access and influence. Backbone entities can also identify opportunities to re-allocate funds from existing public health

programs or capitalize on successful community projects already underway. By piggybacking on existing efforts, collaboratives can pool resources with partners working toward the same or different goal.[28] For example, a food waste rescue effort could meet the mission of hunger relief as well as reduce food waste.

2. Breaking funding silos.

Historically, public sectors have had access to distinct, narrowly defined federal, state, and local government funding streams. Before PH3.0, this approach was seen as effective: public health departments organized their service by conditions (e.g., HIV/AIDS, maternal and child health, diabetes), and funding streams supported that style of work. But this model tends to fall short when addressing social determinants of health or building capacity for readiness. A move from categorical, siloed funding to more flexible funding models also allows local leaders to respond more rapidly to emerging community needs.

Participants noted that the public health system should advocate for flexible spending dollars by stressing the efficiency in avoiding duplicated work. Communities may also pursue removing barriers to pooling funding across organizations and jurisdictions, which would enable programs to mix funds for collective efforts.

Participants noted that funder engagement is critical to sustaining funding. Collaboratives can, for example, leverage program evaluation results to show impact, and to collect and share data. In particular, capturing and documenting cost savings attributable to the initiative can be instrumental when seeking additional or continued funding; but data and analytic challenges exist.

3. Exploring alternative financing models.

Health care delivery system reform has catalyzed a shift from fee-for-service to pay-for-performance models. Several funding mechanisms, including Medicaid, now have ways to pay for population health outcomes. For financing public health, participants discussed the potential for pay-for-performance models and ones that blend and braid funding from public and private sources. One much-discussed example is the social impact bond model, where private funders invest in programs designed to yield a social impact and are repaid if and when the programs achieve desired outcomes.

Participants shared several suggestions for leveraging existing federal funding to advance population health, such as integrating prevention into Medicare Advantage. At the state level, the Medicaid Section 1115 waiver mechanism provides one potential funding source for transforming the payment and delivery system to improve population health. States could strategically use these waivers to implement demonstration projects that reduce the costs of care and then capture and reinvest these savings.

> “The chasm between primary care and public health is not built into the reimbursement structure. We need payment reform, a fundamental shift in how we reimburse care. The millennials coming into primary care are excited about bridging the chasm, but we need to bridge the funding gap.”
>
> *– Participant, Santa Rosa*

Bright Spot of Innovation: California Accountable Communities for Health

California has embraced a new model for achieving health equity: accountable communities for health (ACH). An ACH is a multi-payer, multi-sector alliance of health care systems, providers, insurers, public health, community and social service organizations, schools, and other partners.

The California Endowment has identified criteria for a successful, sustainable ACH:

- Shared vision and goals
- Partnerships
- Leadership that spans many organizations and is pervasive throughout each organization
- A backbone organization that convenes and facilitates the group, and mobilizes funding
- Capacity to collect, analyze, and share data across sectors
- A wellness fund that serves as a vehicle for attracting and pooling resources
- A portfolio of interventions that addresses social determinants of health from many angles, including clinical and behavioral interventions, clinical-community linkages, community programs and resources, and public policy, systems, and environmental changes

> "The idea [behind ACHs] is that if we can save money in the health care system, we may be able to reinvest that funding in upstream prevention."
>
> *— Karen Smith, Director and State Public Health Officer, California Department of Public Health*

Sonoma County has worked to develop an ACH infrastructure, including data-sharing capabilities and a wellness fund. It has also built a financing framework that includes:

- Backbone funding (for facilitation, strategy development, and infrastructure needs)
- Pooled funding (for pilot testing programs including non-traditional funding methods and proof-of-concept work)
- Innovative loan funding (for scaling up programs and long-term investments)

In Napa County, the Live Healthy Napa County (LHNC) collaborative has made progress toward becoming an ACH. For example, with backbone support from the Napa County Health and Human Services Agency, LHNC has established a shared vision and goals and has nurtured partnerships. Under LHNC's leadership, Napa County has developed a portfolio of interventions to address social determinants of health for priority issues, like overweight and obesity.

Key Findings: Timely and Locally Relevant Data, Metrics, and Analytics

Participants in all meetings highlighted the importance of reliable, diverse, real-time data to drive public health decision making. They noted several data obstacles, catalogued critical data types, and shared strategies for building local capacity to access, analyze, and apply data.

1. Addressing current data gaps and access challenges.

Public health practice relies on timely data that are locally relevant. Despite progress made in the national- and state-level survey infrastructure and the wide adoption of interoperable electronic health records, local public health professionals continue to face challenges in obtaining access to critical data that can guide their actions and track impact. Participants noted the prevailing time lag in existing data systems. For instance, publicly available National Health and Nutrition Examination Survey data were often collected several years prior. Many participants urged substantial expansion of county- and sub-county-level data collection efforts to enable local efforts that are pertinent to the population they serve. Further, there needs be a cultural shift in public agencies across the federal, state, and local levels in striving to make more raw, de-identified data available to researchers and the community in a more timely fashion to accelerate the translation of evidence to action.

Ancillary Event: Data, Metrics, and Analytics Roundtable, March 22, 2016

On March 22, 2016, OASH convened more than 40 thought leaders representing government, academia, and the private sector in Washington, DC to discuss the role of data in advancing public health.

Data, metrics, and analytics tools are critical to effective public health practice. Many local health departments currently rely on national data that are years old, were collected from labor-intensive surveys, or are not granular enough to inform local efforts. Even when public professionals can access essential data, they may struggle to link them to other data sets or use them effectively.

The full-day meeting focused on state and local health departments' data-related challenges and opportunities—and how the federal government can help modernize the data and analytics infrastructure. The group was unanimous that cross-sector partnerships can bolster the local public health data that professionals rely on. Panelists also highlighted innovative public health data initiatives across the country.

Roundtable participants developed an initial set of recommendations to collect, access, and use relevant data to support PH3.0 initiatives. The full meeting summary can be downloaded at: https://www.healthypeople.gov/2020/tools-resources/public-health-3/resources.

There are also substantial barriers to data sharing. In addition to significant variability in file formats and metrics of measurement, there is widespread misunderstanding of the Health Insurance Portability and Accountability Act requirements and a lack of expertise and capacity at the local level to handle the legal processes involved in data-sharing agreements across agencies and entities. Tracking individuals or linking individuals across different data systems is oftentimes impossible in the absence of unique personal identifiers. Participants suggested the need for best practices in data sharing that create interoperability standards while protecting privacy.

> “Granularity matters. We need community-level data to identify places with specific needs.”
>
> *– Participant, Allegheny*

2. Exploring new types of data.

Data traditionally collected by local public health officials at times paint an incomplete picture of a community’s challenges and successes. Participants encouraged local leaders to explore alternative sources of data, including hospital and ambulatory care records, health insurance claims, and electronic health records. These data sources provide trends and patterns of health care utilization and admissions/discharges. They often contain sufficiently granular location information, and are made available with only a short lag time. Many communities, for example, are using this type of data for “hot spotting” areas with high health care needs that may benefit from comprehensive preventive efforts.

To better understand community needs, participants also suggested taking advantage of data across sectors, especially data on upstream challenges related to income, education, housing, crime, interpersonal violence and trauma, environmental hazards, transportation, and education. Sources of these data include programs such as the Supplemental Nutrition Assistance Program (SNAP), the Homeless Management Information System, the American Community Survey, and the National Committee on Vital and Health Statistics (NCVHS) report, *Environmental Scan of Existing Domains and Indicators to Inform Development of a New Measurement Framework for Assessing the Health and Vitality of Communities*. Public health practitioners can also use cross-sector data to evaluate collaborative initiatives—for example, one could evaluate whether an intervention that promotes wellness among school-age youth results in improvement in educational attainment or graduation rate.

> “We need data on social determinants, prevention, and return on investment. We have to marry health economics with public health prevention and get people to take a long—not short—look.”
>
> *– Participant, Spokane*

Bright Spot of Innovation: *Priority Spokane*

Priority Spokane serves as a catalyst for focused improvements in economic vitality, education, the environment, health, and community safety. The collaborative convenes diverse partners from across the county, including the Spokane Regional Health District, Spokane Public Schools, the City of Spokane, the Spokane Housing Authority, and Greater Spokane Incorporated. Priority Spokane also includes local and regional hospitals, universities, and foundations.

Identifying Public Health Priorities

According to Priority Spokane, public health priorities must affect a significant number of people in the community, affect various areas within the community, and be actionable. To address public health priorities, Priority Spokane analyzes data, develops and implements data-driven strategies, and evaluates progress.

In 2009, Priority Spokane analyzed graduation rates to identify educational attainment as a priority indicator. The collaborative conducted a study of 7,000 public school students over two years to understand when students were falling behind and dropping out. These findings pointed to three tipping points: low attendance, suspensions for disruptive behavior, and low course completion.

Taking Action

Equipped with these insights, Priority Spokane took action to create essential supports for students that would help them stay on track. For example, Priority Spokane advocated for new state laws that promote restorative rather than exclusionary discipline, developed a mentorship program with Gonzaga University, and worked with community partners to establish a community dashboard for monitoring progress. In five years, Spokane's graduation rate jumped from 60% to 80%.

In 2013, Priority Spokane again followed this process to work toward solving another countywide public health priority: mental health issues among school-age youth. Priority Spokane received a Culture of Health Prize from the Robert Wood Johnson Foundation in 2014, in recognition for its work advancing community health.

3. Supporting data sharing and analysis.

Barriers to sharing, analyzing, and interpreting data can impede local efforts to assess needs and evaluate programs. Participants noted that sharing and analyzing data across sectors is critical to achieving a person-centric and community-centric perspective. To incentivize data sharing, local leaders need to articulate how it can support a collective goal. For example, health departments aiming to address the issue of sedentary lifestyles within the community can use transportation and city planning data to inform their efforts. However, participants also suggested that governance is required to create a platform for exchanging data across sectors and institutionalize data-sharing capabilities.

> "Public health departments need access to whole-person data across multiple organizations and agencies—and the ability to analyze and take action."
>
> *— Participant, Kansas City*

Key Findings: Foundational Infrastructure

Participants from all meetings identified salient features of a PH3.0-capable local health department and shared ideas about how to make progress toward institutionalizing these features.

1. Creating a mission-based, collaborative infrastructure.

Participants underscored the importance of public health departments developing a clear mission and roadmap centered on community needs and involvement. Local health departments embracing PH3.0 should welcome community engagement both formally—for example, through community advisory boards—and informally. Community engagement means focusing not only on disseminating information to communities, but also on collecting information from communities.

According to participants, a PH3.0 public health department should reflect PH3.0 values—collaboration, equity, and commitment to addressing social determinants of health—in its mission statement, strategic plan, organizational chart, and new-hire orientations. State and local health departments should also include information technology and data capabilities (collecting, analyzing, disseminating, and acting on them) in their routine quality improvement process. In addition, participants noted that a PH3.0 health department is one whose financing mechanism allows for flexibility in its funding to respond to emerging health concerns.

2. Focusing on equity and cultural competence.

Participants explained that local and state health departments must adopt an equity lens through which they view the community and their work. Health departments can institutionalize this approach by training all staff in cultural competence. Participants suggested a few training options—for example, computer-based training on implicit (unconscious) bias—but also noted that

engaging with the community is the best training. Many agreed that making one person accountable for equity is not sufficient; rather, there has to be a department-wide cultural shift.

> "A PH3.0 infrastructure requires cultural humility and competency—a recognition that I don't know what I don't know."
>
> *— Participant, Nashville*

3. Articulating foundational infrastructure and the public health "brand."

Participants defined PH3.0 health departments of the future as forward-thinking change makers. Several urged HHS to continue to communicate a PH3.0 model that communities can tailor to fit local culture and priorities. Departments can take other steps to institutionalize PH3.0 operations and leadership, such as documenting processes for making decisions and taking collective action. Documentation helps to ensure the continuation of activities even as leaders come and go. Participants noted that the department's structure can also promote a PH3.0 ethos; for example, departments can build cross-disciplinary teams internally or create a horizontal leadership structure. In addition, they could develop a center, unit, or program housed within the department dedicated to external relations, strategic development, and community engagement.

To foster a cultural shift to PH3.0 within departments, participants from local public health departments shared the experience of undergoing accreditation as a significant process for assessing their capacity to deliver essential public health services, improve quality, and enhance their accountability. Participants also called on the private sector to engage, collaborate, and create shared value. Emulating private sector

Bright Spot of Innovation: *Nashville Health*

Nashville is a thriving city with a robust health care delivery system—but many residents suffer from poor health. NashvilleHealth is a new collaborative founded by Senator William Frist, MD, that adds momentum and dimension to the county's collective effort to improve health.

NashvilleHealth is guided by a simple mission: to substantially improve the health and well-being of Nashvillians.

In its first year, NashvilleHealth will focus on:

- Preventing and curbing tobacco use, since Tennessee has one of highest tobacco use rates in the nation (23%)
- Lowering high blood pressure rates, since high blood pressure can lead to several chronic health conditions
- Creating conditions in which children can be healthy, since behaviors adopted in childhood are predictors of wellness later in life

The collaborative will leverage resources and relationships to address these problems from several angles. To support this important work, NashvilleHealth is developing a framework for effecting change that is affordable, sustainable, and scalable.

NashvilleHealth aims to make Nashville one of the healthiest places to live in the state and the nation. The collaborative will use state and national health rankings to measure progress toward this goal—and will strive to make Nashville number 1.

business practices could take health departments a long way. These processes include implementing meaningful metrics, timelines, and deliverables. Participants also noted that certain skills that are traditionally thought of as valuable only in the private sector—such as sales and marketing—are useful in public health. The ability to approach a new partner, deliver a "sales" pitch, and forge new collaborative ventures is not only valuable—it is essential to PH3.0.

> "[PH3.0 health departments need] a culture of creativity and innovation: capable of storytelling, engagement practices, creative place making."
>
> *— Participant, Santa Rosa*

Recommendations to Achieve Public Health 3.0

The era of Public Health 3.0 is an exciting time of innovation. Without support from across the broader public health system, however, public health entities will not be able to achieve or sustain their transformation. Our recommendations reflect what we heard from the public health community across the country, from conversations with leaders, and from a review of prior reports that lay out a framework for strengthening public health. We propose five key recommendations that define the conditions needed to support health departments, and the broader public health system as it transforms.

We also propose specific actions that can be taken related to these broader recommendations.

1. Public health leaders should embrace the role of **Chief Health Strategist for their communities**—working with all relevant partners so that they can drive initiatives including those that explicitly address "upstream" social determinants of health. Specialized Public Health 3.0 training should be available for those preparing to enter or already within the public health workforce.

In many communities the local health officer will serve the role of Chief Health Strategist, but this may not necessarily always be the case—indeed Chief Health Strategists can come from other sectors. In the PH3.0 era, the public health workforce must acquire and strengthen its knowledge base, skills, and tools in order to meet the evolving challenges to population health, to be skilled at building strategic partnerships to bring about collective impact, to harness the power of new types of data, and to think and act in systems perspective. This will require a strong pipeline into the public health workforce, as well as access to ongoing training and mid-career professional development resources.

a. Public health associations such as ASTHO and NACCHO should develop best practice models and training for current public health leaders looking to work as Chief Health Strategists.

b. The Health Resources and Services Administration (HRSA) should incorporate principles of Public Health 3.0 and social determinants of health in their workforce training programs, including the National Health Service Corps orientation, public health training center, and National Coordinating Center for Medicare and Medicaid Services Accountable Health Communities Model.

c. Local public health agencies should partner with public health training centers and academic schools and programs of public health to inform training that meets the local public health workforce needs.

d. The business and public health communities should jointly explore leadership development and workforce enrichment opportunities such as short-term fellowships or exchange programs, with a particular focus on the financial and operational capacity of local health departments. Academic institutions should encourage their faculty and administrations to develop meaningful partnerships with local public health departments and support service learning and internships for students from all disciplines in state and local health departments.

e. Academic institutions should encourage their faculty and administrations to develop meaningful partnerships with local public health departments and support service learning and internships for students from all disciplines in state and local health departments.

f. Local health departments should train their leaders and staff in the concept and application of the collective impact model of social change.

g. Public health should work with leadership institutes and business schools to establish professional development resources and opportunities.

---

2 Public health departments should engage with community stakeholders—from both the public and private sectors—to form vibrant, **structured, cross-sector partnerships** designed to develop and guide Public Health 3.0–style initiatives and to foster shared funding, services, governance, and collective action.

Communities should create innovative and sustained organizational structures that include agencies or organizations across multiple sectors but with a shared vision, which allows blending and braiding of funding sources, capturing savings for reinvestment over time, and a long-term roadmap for creating health, equity and resilience in communities. In some communities the local heath department will lead, but others may lead these efforts.

a. Local public health agencies should form cross-sector organizational structures aimed at achieving a collective vision of community health that are capable of receiving and sharing resources and governance.

b. HHS should work with others to develop a report defining the key characteristics of successful local public health models that address social determinants of health through cross-sector partnerships and recommending pathways to wide adoption.

c. The Assistant Secretary for Preparedness and Response (ASPR) and the CDC should work with state and local health entities to ensure synchronization between health care practices, coalitions, and public health entities. Pre-crisis collaboration is essential to improve sharing of limited resources, improve timely and accurate communication, and improve sharing of data relevant to preparedness planning and response.

d. Local public health leaders should engage with elected officials to create cross-jurisdictional organizational structures or partnerships for all community development efforts.

e. Public health entities should partner with environmental health agencies to address the environmental determinants of health.

f. HHS should continue to develop tools and resources (such as the HI-5) that identify system-level drivers of health disparities, connecting health and human services, and work with communities to translate evidence to action.

g. HRSA should recommend that health centers to document collaboration with their state and/or local health department.

h. Health care providers should identify clear mechanisms to engage with local public health as part of their effort to achieve the three-part aim of better care, smarter spending, and healthier people.

i. The Centers for Medicare and Medicaid Services (CMS) and ASPR should work together to ensure state and local public health entities engage health care providers during times of crisis or disaster. Preparedness measures are essential to healthier and more resilient people.

j. The Substance Abuse and Mental Health Services Administration should encourage state mental health and substance use disorder agencies and other grantees to collaborate with state, local, and tribal public health entities in achieving PH3.0 goals.

k. The Agency for Health care Research & Quality should ensure linkages between primary care and public health via the Primary Care Extension Program and evaluate outcomes.

l. The National Institutes of Health should continue its community participatory research and engagement efforts, such as the Clinical and Translational Science Awards and the Partnerships for Environmental Public Health, to accelerate translation of evidence to community action, as well as to generate new knowledge in the evaluation and implementation of public health interventions.

m. Public health leaders should pursue local partnerships to ensure population health is central in all community development efforts.

---

3 Public Health Accreditation Board (PHAB) criteria and processes for department **accreditation should be enhanced** and supported so as to best foster Public Health 3.0 principles, as we strive to ensure that every person in the United States is served by nationally accredited health departments.

As of August 2016, 324 local, state, and tribal health departments have been accredited or in progress for accreditation, covering roughly 80% of the U.S. population. The vision of ensuring every community is protected by a local or a state health department (or both) accredited by PHAB requires major investment and political will to enhance existing infrastructure. While research found accreditation supports health departments in quality improvement and enhancing capacity, the health impact and return on investment of accreditation should be evaluated on an ongoing basis.

a. HHS should assess opportunities to incentivize PHAB accreditation through federal programs and policies.

b. HHS should require state and local health departments receiving federal grants to indicate their PHAB accreditation status, including applications in progress or plans to apply in the future.

c. The federal government should partner with the private sector to create a learning community for local health departments seeking to engage in PH3.0 work with a particular focus on collective impact models to address the social determinants of health.

d. Resources to support the accreditation process and maintenance should be more readily available from public and private funding sources.

e. PHAB should continue to evolve accreditation expectations by incorporating Public Health 3.0 concepts.

f. Philanthropic organizations supporting local public health activities and social interventions should require grant applicants to collaborate with local health departments.

g. ASTHO and NACCHO should accelerate their support of state and local health departments moving to accreditation.

h. PHAB and its strategic partners should continue to enable pathways to accreditation for small and rural health departments.

i. States should assess the efficiency and effectiveness of their local health departments, including addressing jurisdictional overlaps and exploring opportunities for shared services mechanisms.

4 Timely, reliable, granular-level (i.e., sub-county), and **actionable data** should be made accessible to communities throughout the country, and clear **metrics** to document success in public health practice should be developed in order to guide, focus, and assess the impact of prevention initiatives, including those targeting the social determinants of health and enhancing equity.

The public and private sectors should work together to enable more real-time and geographically granular data to be shared, linked, and synthesized to inform action while protecting data security and individual privacy. This includes developing a core set of metrics that encompasses health care and public health, particularly the social determinants of health, environmental outcomes, and health disparities.

a. HHS should utilize opportunities such as Healthy People 2030, NCVHS's population health subcommittee, the Evidence-Based Policymaking Commission, and the census to elevate metrics related to social determinants to be leading health indicators, to define community-level indicators that address the social determinants of health, and to explore models to leverage administrative data.

b. NCVHS should advise the secretary of HHS to incentivize the integration of public health and clinical information.

c. CDC should continue its work with the private sector to make sub-county-level data including health, health

care, human services, environmental exposure, and social determinants of health available, accessible, and usable.

d. HHS should work with public health leadership and the private sector to develop a non-proprietary tool to support geographic information systems and other analytic methods for front-line public health providers.

e. Health systems and other electronic health data repositories should prioritize data sharing at the federal, state, and local level with the goal of achieving a learning health system inclusive of public health by 2024 as described in the Office of the National Coordinator for Health Information Technology (ONC) Nationwide Interoperability Roadmap.

f. The HHS Office for Civil Rights should continue to develop guidance for the public health system to provide clarity on private and secure data use, as well as guidance to promote civil rights compliance to address those social determinants which are the product of discriminatory practices.

g. ONC and the Administration for Children and Families should continue to establish clear data and interoperability standards for data linkage between health and human services sectors.

h. HHS should continue to identify gaps in the collection of data relating to race/ethnicity, language, gender identity or sexual orientation in existing surveys. When feasible, governmental and nongovernmental stakeholders at all levels—federal, state, local, and tribal—should collect standardized, reliable data concerning disparities.

i. HHS should facilitate linking environmental and human services data to health.

5 **Funding for public health should be enhanced and substantially modified,** and innovative funding models should be explored so as to expand financial support for Public Health 3.0–style leadership and prevention initiatives. Blending and braiding of funds from multiple sources should be encouraged and allowed, including the recapturing and reinvesting of generated revenue. Funding should be identified to support core infrastructure as well as community-level work to address the social determinants of health.

To secure sufficient and flexible funding in a constrained and increasingly tightening funding environment, local public health needs a concrete definition of the minimum capabilities, the costs of delivering these services, and a structured review of funding streams to prioritize mandatory services and infrastructure building.

a. The CMS and private payers should continue to explore efforts to support population-level health improvements that address the social determinants of health.

b. HHS should explore transformation grants for state and local health departments to evolve toward PH3.0 structure, analogous to the State Innovation Model (SIM) grants to support health care system transformation.

c. State governments receiving funds through SIM or Medicaid Waiver processes should be required to document their health department accreditation status, and their strategies for addressing the social determinants in partnership with their local public health departments.

d. States should maximize their use of the funding through the Health Services Initiative option under the Children's Health Insurance Program to advance their public health priorities for low-income children.

e. HHS should enhance its coordination both within the department and with other agencies, developing and executing cross-agency efforts to strategically align policies and programs that address the social determinants of health.

f. Public and private funders should explore options to provide more flexibility for accredited health departments to allocate funds toward cross-sector efforts including partnership development and collective impact models in addressing the social determinants.

g. Communities should examine how to best use the ACA's community benefits requirement for nonprofit hospitals by coordinating the alignment of the data collection process and pooling resources, and how these can be used to advance and provide funding for public health.

h. Public health agencies and academic institutions should periodically calculate the funding gap—the difference between the costs of providing foundational capabilities by each local health department and its current funding level—and communicate these figures in the context of forging partnerships and expanding funding sources.

Conclusion

The Public Health 3.0 framework leverages multi-sector collaboration to address the non-medical care and social determinants in communities, with local public health entities at the core, serving as Chief Health Strategists in their communities.

This sort of cooperation across the broader health system will be necessary to assure health equity for everyone, regardless of race/ethnicity, gender identity or sexual orientation, zip code, or income. At the local level, this effort will require a Chief Health Strategist, and local public health is best suited to serve in that role. For local public health leaders and entities to step up to this challenge, they will need to build upon their past successes and transform their agencies.

The exciting news is that many public health leaders and communities across the United States are doing just that. They are forging a new framework for public health that is leveraging new partnerships and resources to create the conditions in which everyone can be healthy. To ensure that these innovative PH3.0-style health agencies and communities can sustain their work and spread the model to other communities, all parts of the public health system will need to not only invest appropriately in public health, but support its ongoing transformation. Only then, through the collective actions of our society, can we ensure the conditions in which everyone can be healthy. The time is now to create the robust public health infrastructure needed to improve the public's health; the time is now for Public Health 3.0.

Acknowledgments

The Office of the Assistant Secretary for Health would like to acknowledge the following individuals for their leadership, collaboration, and contributions to this report:

Nancy Aguirre

Rex Archer

John Auerbach

Jose Belardo

Kaye Bender

Frances Bevington

Carter Blakey

Tara Broido

Tracy Buck

Emily Claymore

Liza Corso

Theresa Devine

Mike Fraser

The Honorable William H. Frist

Nadine Gracia

Marybelle Guo

Karen Hacker

Andrea Harris

Lamar Hasbrouck

Charlie Homer

Ed Hunter

Shary Jones

Denise Koo

Mahak Lalvani

Cannon Leavelle

Sheila Masteller

Karen Matsuda

Tracie McClendon

Leslie Meehan

Karen Milman

Casey Monroe

Judy Monroe

Susan Mosier

Karen Murphy

Vivek Murthy

Tom Novotny

Patrick O'Carroll

Dalton Paxman

Matthew Penn

Josh Prasad

Karen Relucio

Sharon Ricks

Darla Royal

Karen Scott

Karen Smith

Torney Smith

Craig Thomas

Betsy Thompson

Claire Wang

John Wiesman

Abby Wilson

Lyndia Wilson

Caroline Young

Endnotes

[1] Secretary's Advisory Committee on Health Promotion and Disease Prevention Objectives for 2020. Healthy People 2020: An Opportunity to Address the Societal Determinants of Health in the United States. July 26, 2010. Available from: http://www.healthypeople.gov/2010/hp2020/advisory/SocietalDeterminantsHealth.htm

[2] Kochanek KD, Murphy SL, Xu JQ, Tejada-Vera B. Deaths: Final data for 2014. National vital statistics reports; vol 65 no 4. Hyattsville, MD: National Center for Health Statistics. 2016. http://www.cdc.gov/nchs/data/nvsr/nvsr65/nvsr65_04.pdf

[3] U.S. Department of Health and Social Services. (n.d.). The Health Consequences of Smoking—50 Years of Progress: A Report of the Surgeon General. Retrieved from http://www.surgeongeneral.gov/library/reports/50-years-of-progress/fact-sheet.html

[4] Health Insurance Coverage: Early Release of Estimates From the National Health Interview Survey, January–June 2015 http://www.cdc.gov/nchs/data/nhis/earlyrelease/insur201511.pdf

[5] National Academy of Medicine. (2013). *U.S. Health in International Perspective: Shorter Lives, Poorer Health*. Washington, DC: National Academies Press.

[6] Life expectancy at birth and at age 65 remained the same in 2012, 2013, and 2014. Murphy, S. L., Kochanek, K. D., Xu, J., & Arias, E. (2015). Mortality in the United States, 2014. *NCHS Data Brief 229*. http://www.cdc.gov/nchs/data/databriefs/db229.pdf. Kochanek, K. D., Murphy, S. L., Xu, J., & Arias, E. (2014). Mortality in the United States, 2013. *NCHS Data Brief 178*. http://www.cdc.gov/nchs/data/databriefs/db178.pdf

[7] National Center for Health Statistics, Centers for Disease Control and Prevention, eds. *Health, United States, 2015, with special feature on Racial and Ethnic Health Disparities*. Hyattsville, MD, 2016.

[8] Whitehead, LaToria. "The road towards environmental justice from a multifaceted lens." *Journal of environmental health* 77.6 (2015): 106-109.

[9] Institute for Health Metrics and Evaluation. (n.d.). U.S. Health Map. Retrieved from http://www.healthdata.org/data-visualization/us-health-map

[10] Resources for evidence-based interventions to address community health and safety issues are available from such sources as The Guide to Community Preventive Services.

[11] McGinnis, J. M., Williams-Russo, P., & Knickman, J. R. (2002). The Case For More Active Policy Attention To Health Promotion. *Health Affairs 21*(2), 78–93.

[12] Halfon, N., et al. (2014). Applying a 3.0 transformation framework to guide large-scale health system reform. *Health Affairs 33*(11), 2003–2011.

[13] Institute of Medicine. (2012). *Primary Care and Public Health: Exploring Integration to Improve Population Health*. Washington, DC: The National Academies Press.

[14] Auerbach, J. (2016). The 3 buckets of prevention. *Journal of Public Health Management and Practice 22*(3), 215–218.

[15] Bradley, E. H., et al. (2011). Health and social services expenditures: associations with health outcomes. *BMJ Quality & Safety 20*(10), 826–831.

[16] Rogan, E., & Bradley, E. (2016). Investing in Social Services for States' Health: *Identifying and Overcoming the Barriers*. New York: Milbank Memorial Fund.

[17] Bradley, E. H., et al. (2016). Variation In Health Outcomes: The Role Of Spending On Social Services, Public Health, And Health Care, 2000–09. *Health Affairs 35*(5), 760–768.

[18] Mays, G., & Hogg, R. (2015). Economic shocks and public health protections in US metropolitan areas. *American Journal of Public Health 105*(S2), S280–S287.

[19] National Association of County and City Health Officials. (2012). Local health department job losses and program cuts: findings from the January 2012 survey. Retrieved from http://www.naccho.org/topics/infrastructure/lhdbudget/upload/research-brief-final.pdf

[20] Institute of Medicine. (2002). *The Future of the Public's Health in the 21st Century*. Washington, DC: The National Academies Press.

[21] Frist, B., & DeSalvo, K. (2016). What The Flint Water Crisis Reveals About Public Health. *Forbes*. Retrieved from http://www.forbes.com/sites/billfrist/2016/02/11/what-the-flint-water-crisis-reveals-about-public-health/

[22] Institute of Medicine. (1988). *The Future of Public Health*. Washington, DC: The National Academies Press. doi:10.17226/1091

[23] Institute of Medicine. (1988). *The Future of Public Health*. Washington, DC: The National Academies Press. doi:10.17226/1091

[24] Institute of Medicine. (1988). *The Future of Public Health*. Washington, DC: The National Academies Press. doi:10.17226/1091

[25] RESOLVE. (n.d.) The High Achieving Health Department in 2020 as the Community Chief Health Strategist. Retrieved from http://www.resolv.org/site-healthleadershipforum/hd2020/

[26] Koo, D., O'Carroll, P., Harris, A., & DeSalvo, K. (2016). An Environmental Scan of Recent Initiatives Incorporating Social Determinants in Public Health. *Preventing Chronic Disease 13*.

[27] Kania, John, and Mark Kramer. "Collective impact." (2011): 36-41.

[28] Robinson, T. N. (2010). Save the world, prevent obesity: piggybacking on existing social and ideological movements. *Obesity 18*(S1), S17–S22.

Office of the Assistant Secretary for Health
U.S. Department of Health and Human Services

PUBLIC HEALTH 3.0