2020-2024

Tazewell County Health Department Strategic Plan

Staff Anniversary Recognition 2019

Amy Fox 9/2020

July 27, 2020

Tazewell County Board of Health and Citizens,

On behalf of the Tazewell County Health Department Directors and staff it is my privilege to present the *TCHD Strategic Plan for 2020-2023*.

These planning efforts have resulted in a significant improvement and understanding of each role within the health department. More importantly it has highlighted the need for continued planning and an understanding of inter-dependencies we share with other agencies, organizations, governments, and businesses in Tazewell County. Further identification of entities that assist in the public health system and ongoing comprehensive evaluation of the health status of Tazewell County are necessary.

Outlined in the *TCHD Strategic Plan for 2020-2023* are themes that bring our agency closer to fulfilling the vision of the Public Health 3.0.

I am also proud to notify the Board that the health department continues to be forward leaning: ready to maintain current capabilities and equipped to adapt to and meet the results of the strategic planning process. Without the Board's support and the dedication of all those involved in this planning effort, this strategic planning process would not have been possible

Should you have any questions about this plan or would like additional information on any of Tazewell County Health Department's programs, please do not hesitate to contact me.

Sincerely,

Amy Fox, Administrator
Tazewell County Health Department

Addendum-

The Illinois Department of Public Health, local health departments, and public health partners throughout Illinois, and federal agencies, including the Centers for Disease Control and Prevention (CDC), are responding to an outbreak of respiratory illness caused by a novel coronavirus called COVID-19 that was first identified in December 2019 during an outbreak in Wuhan, China. COVID-19 has spread throughout the world, including the United States, since it was detected and was declared a public health emergency for the U.S. on January 31, 2020 to aid the nation's healthcare community in responding to the threat. The World Health Organization announced March 11, 2020 that the spread of coronavirus qualifies as a global pandemic.

In addition, Gov. JB Pritzker issued a disaster proclamation March 9, 2020 regarding COVID-19 that gives the state access to federal and state resources to combat the spread of this newly emerged virus.

The first case of COVID-19 in the United States was reported January 21, 2020 and the first confirmed case in Illinois was announced January 24, 2020 (a Chicago resident). The first cases outside Chicago and Cook County were reported March 11, 2020 in Kane and McHenry counties. On March 25, 2020 David Zimmerman County Board Chairman declared an Emergency for Tazewell County.

Today, July 20, 2020 Tazewell County has 228 cases of COVID 19 among our population. We are unsure of where this Pandemic will take us and the amount of time that it will take to recover. Our intention is for this plan to be carried on as anticipated, however, we need to contend with the reality of these uncertain times. Therefore, we will be extending this plan for a fourth year to 2024. We will remain flexible in our planning and work towards all the goals addressed herein. Our primary concern must be the safety and health of our citizens during this Pandemic and as such the flexibility of another year should allow staff to complete both of these necessary missions.

Section 1: Tazewell County Health Department's Mission, Vision and Values

MISSION

"To promote and protect the public's health and well-being"

VISION

"TCHD will be a state leader and partner, serving the community through innovative public health practices to meet the current and future needs of the individual and of the environment, with the ultimate goal of inspiring and attaining overall wellness"

VALUES

The Tazewell County Health Department is dedicated to our community through:

Value	Definition
Service	Understanding and meeting public health needs with creativity and commitment
Quality	Continuously seeking to enhance and provide services at the highest possible level
Accountability	Ensuring responsible use of resources to benefit the community
Integrity	Being ethical and reliable
Collaboration	Communicating and working together for the overall good of the public
Innovation	Being a leader in anticipating and addressing public health needs
Respect	Relating to all people with understanding, compassion and dignity

Purpose of a Strategic Plan

The purpose of the Tazewell County Health Department Strategic Plan is to:

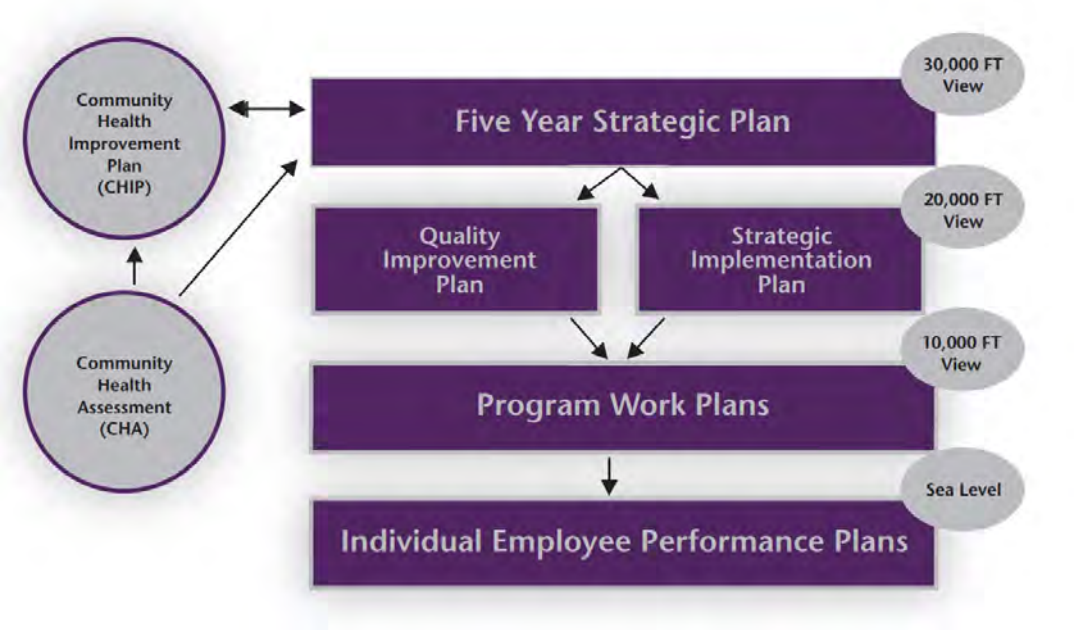
- Clearly establish Tazewell County Health Department's future path as it aligns with the Mission, Vision, Values and identified areas for improvement or enhancement

- Provide an outline of our goals and objectives so that they can be clearly communicated to our staff, Board of Health, partners, community members, and stakeholders
- Provide a direction for strategic resource allocation
- Provide a measurement of our current abilities against the highest public health standards

Background

This Strategic Plan will be the fourth such plan for our agency. First crafted in 2011 and regularly since.

The Board of Health has committed to maintaining a current strategic plan for the agency and has taken steps to make this process one that includes a cycle of assessing the Community health needs, developing a Community Health Improvement Plan and then turning towards internal functions with the development of an agency Strategic Plan.



(Adapted from MarMason Consulting LLC, 2012)

Section 2: The Vision of the Future of Public Health

In a report designed to increase consensus around meaning of health equity, the Robert Wood Johnson Foundation (RWJF) provides the following definition: "Health equity means that everyone has a fair and just opportunity to be as healthy as possible. This requires removing obstacles to health such as poverty, discrimination, and their consequences, including powerlessness and lack of access to good jobs with fair pay, quality education and housing, safe environments, and health care."

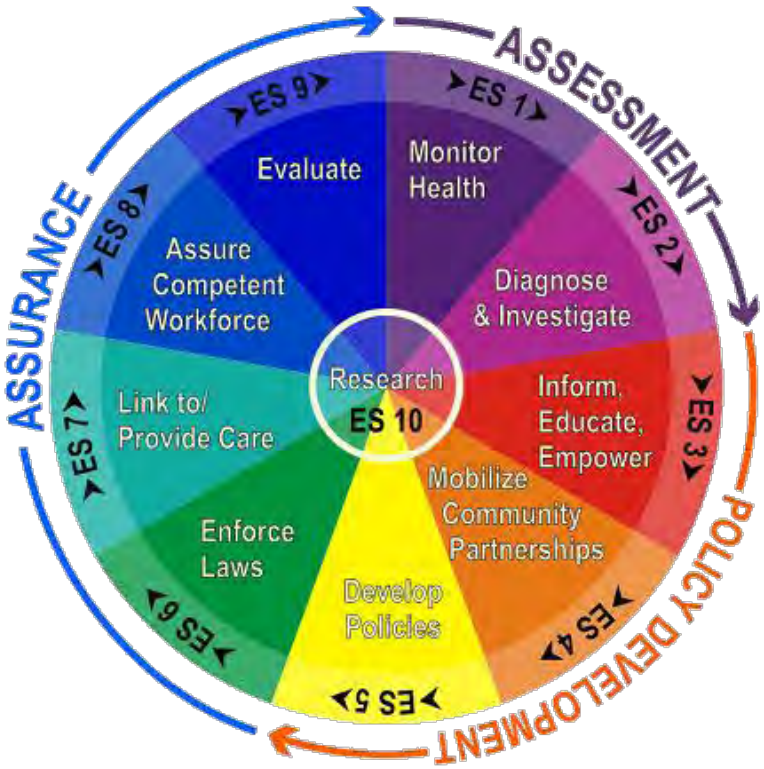
Two documents have been touchstones for our vision for what Tazewell County Health Department (TCHD) and our staff need to strive to be in the future. The first is a report entitled *"Public Health 3.0- a Call to Action to create a 21st Century Public Health Infrastructure."* (**Appendix A**) and the second being the document entitled *"The High Achieving Governmental Health Department in 2020 as the Community Chief Health Strategist"* (**Appendix B**) Both of these documents were a part of the last Strategic Plan and have been guiding remarks that have helped us to craft both our last plan and this one we are currently proposing. A third document has been recently been published in late 2019, *"Public Health Code of Ethics"* (**Appendix C**) is a set of professional standards and expectations intended for public health practitioners. A quote in the introduction of the *Code of Ethics* document " *As the field of public health enters the era of Public Health 3.0, in which public health practitioners and programs prioritize social determinants for health and interact with a growing diversity of partners, it is important to reexamine and reemphasize public health's commitment to ethical practice and public service."*

The type of community work envisioned in these documents must be developed by a competent workforce. Skills that enable staff to understand how to collect data, interpret data and make programmatic decisions based on data is a growing need as we address emerging health issues. Understanding how to create reliable community partnerships across all sectors of our community is a skill that takes practice and experience. In 2019 and into 2020, Health Equity in our services and in our understanding of the needs of Tazewell County have been targeted as a stretch opportunity for all staff learning. Understanding and achieving equity is a challenge for our County and our Country. This Strategic Plan for Tazewell County Health Department will help us to focus and continue the path to achieve this vision for Public Health in 2020 and beyond.

In the April 2016 issue of the American Public Health Association's: *American Journal of Public Health,* DeSalvo, with other officials from the US Health and Human Services and the Centers for Disease Control and Prevention first discussed the vision of Public Health 3.0. These public health leaders argue

that as the nation's disease burden is increasingly attributable to behaviors shaped by social and environmental determinants, public health agencies must take a lead role in building the community conditions that promote good health and well-being for all. The phases and changes that have been experienced by the public health system are outlined by DeSalvo et.al in three phases.

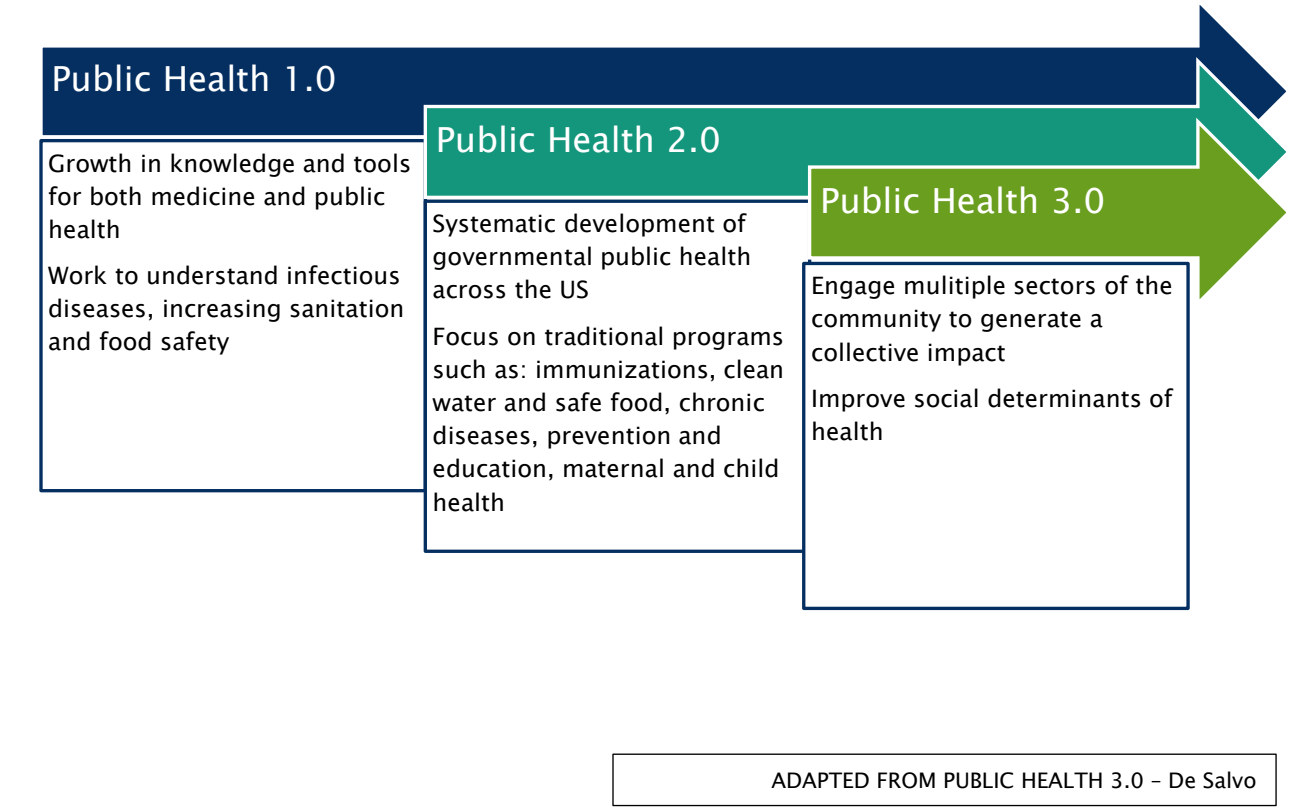
Recently, in the March/ April 2019 Journal of Public Health Practice and Management, *"The true promise of Public Health 3.0 will occur where we have a well-rounded public health workforce—a workforce that has the skills and aptitudes to address infectious diseases along with chronic disease, social determinants of health, and combine the traditional disciplines of public health with strategic skills. This will be the beginning of public health workforce 3.0. This workforce will take on the challenges outlined in Public Health 3.0, embracing the intersectoral collaboration that will allow us to realize the full promise of practicing population health."* Public Health 3.0 the standard used in the upcoming revision of the 10 Essential Public Health Services. The 10 Essential Services is a framework by which public health should have understanding and expertise. Currently, the de Beaumont Foundation and Public Health National Center for Innovations (PHNCI) are working together to revisit and potentially revise the 10 Essential Public Health Services — not in isolation, but through an open and transparent process with the field using in person and virtual town hall groups. Tazewell County Health Department administration



participated and gave input regarding this reimaging of our public health framework for 2020 and beyond. Below is a diagram of the current 10 Essential Services. The new version is not expected until later in 2020.

Public Health 1.0 was before and during the 20th century and brought about advances in science and medicine, such as antibiotics and vaccines, and accelerated surveillance and laboratory sciences. Public Health 2.0 began with a 1988 report from the then-Institute of Medicine on the "*Future of Public*

Health," which concluded that the nation's public health system had fallen into "disarray" and who's findings jump-started a national effort to clearly define the ten essential public health services.



The key components of Public Health 3.0; are enhanced public health leadership in the community, broad engagement with partners across multiple sectors, an accreditation process that includes Public Health 3.0 elements, timelier and locally relevant data, new metrics of community health, and more flexible public health funding. A supporting connection to the need for building partnerships is illustrated through Healthy People 2020, who's recommended goals and objectives many times encourage collaboration across sectors and communities. Healthy People 2030 is anticipated being published in 2020. Changes will be monitored in this document and evidence-based programs may be adjusted.

Additionally, the report entitled, "*The High Achieving Governmental Health Department in 2020 as the Community Chief Health Strategist*" published by RESOLVE, a nonprofit organization, and funded by

the Robert Wood Johnson Foundation (RWJF) states that “by 2020, state and local health departments will be more likely to design policies than provide direct services; will be more likely to convene coalitions than work alone; and be more likely to access and have real-time data than await the next annual survey. These new required skills and abilities characterize a new role for health departments as the “chief health strategist” for a community.” This report published before the Public Health 3.0 document has been adopted and is now one component of what will be anticipated in their outlined “Health Department of the Future”.

Public Health WINS is a survey completed nationally, in partnership with ASTHO and the de Beaumont Foundation and was fielded in 2014 and 2017 and will be fielded again in 2020. The goals of PH WINS are to:

- Help health agencies understand workforce strengths, gaps, and opportunities to improve skills, training, and employee engagement
- Inform and guide future workforce research and development, such as recruitment and retention efforts
- Support the workforce in modernizing their traditional public health roles to meet the evolving needs of the public
- Identify demographic trends and their implications for the workforce

Tazewell County Health Department participated in the 201 7 survey and used our results in the assessment of our capability and needs for improvement for this Strategic Plan. **(Appendix D)**

Training needs identified in the documents stated that TCHD staff (97%) felt they needed more training in the Social Determinants of Health. As we approach the Public Health 3.0 Model, this training will be necessary for our agency to move forward in our capabilities.

Public Health 3.0 Model

The five qualities that are included in the projected Department achieving the Public Health 3.0 model include:

1. Public Health Leaders Should Embrace the Role of Chief Health Strategist for Their Communities

The Chief Health Strategist should work with all relevant partners so that they can drive initiatives including those that address environmental, economic, and social determinants of health. The workforce must also acquire and strengthen its knowledge base, skills, and tools 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.

2. Public Health Departments Should Engage with Community Stakeholders—From Both the Public and Private Sectors—To Form Vibrant, Structured, Cross-Sector Partnerships

These partnerships should share a vision for creating health, equity, and resilience in a community over the long term, with employers and payers among the key partners. The defining feature of these partnerships should be the ability to organize; to share governance, set shared vision and goals, blend and braid funding, and capture savings for reinvestment upstream.

3. Achieve Public Health Accreditation Board (PHAB) Accreditation

Accreditation has been shown to be an important mechanism for local public health departments to stimulate quality improvement and enhance their capacity and accountability. As of August 2016, 324 local, state, and tribal health departments have been accredited or are in progress for accreditation, 80% of the U.S. population.

4. Timely and Reliable Data Should Be Made Accessible to Communities Throughout the County. Clear Metrics Should Be Developed to Document Success in Public Health Practice

Data and metrics that encompass health care and public health is essential to guide, focus, and assess the impact of prevention initiatives, especially those targeting the social determinants of health and enhancing equity. There are many technical barriers to data sharing and linkage. 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.

5. Funding for Public Health Must Be Enhanced and Substantially Modified

The traditional, categorical funding model for much of the public health service needs to become more flexible and sustainable. Local public health leaders need to define the foundational capabilities, the cost of delivering those services, and the gap in funding. Innovative mechanisms to blend and braid funds from multiple sources should be tested and scaled to support core agency infrastructure and work to address the social determinants of health.

By acting on these five areas, communities build a future that ensures health for all people, regardless of income, race and ethnicity, gender identity, sexual orientation, language, and zip code.

Taken in part from a blog entitled: Public Health 3.0: A Blueprint For The Future Of Public Health by Karen DeSalvo and Georges Benjamin

Section 3: Status of Tazewell County Health Department in Relation to Public Health 3.0

All levels of staff and the Board of Health were actively involved in this Strategic Plan. Ten resources were considered when looking at the needs of TCHD, including: the current Strategic Plan, Community Health Needs Assessment, PH Wins, PHAB Accreditation Report, Employee Training Preference Survey, an all staff and Board Strengths/ Weakness/ Opportunities/ Threats (SWOT) analysis, Employee Satisfaction Survey, Technology Survey, Community Data Site and Illinois Youth Survey

Staff Members Providing Input about our Strengths, Weaknesses, Opportunities and Threats

A comprehensive summary of all meetings and notes are included in **Appendix E** of this document. Areas of concern were chosen from the input gathered by summarizing the 10 resource documents. After the draft of concerns was decided by the Strategic Planning Committee, the full staff and Board of Health had opportunity to vote on what will be our priority areas for this Strategic Plan. Each division has a representative on the Strategic Planning Committee, and they worked to attain votes from as many staff as possible. Board of Health Members were polled at their regular meeting.

Those concerns addressed within the Public Health 3.0 framework are outlined below. In addition, concerns that were not fully addressed in our concluding Strategic Plan are being brought forward, as

well as, long term planning and growth areas identified by the Administrator. A summary of our progress on the concluding Strategic Plan is included in **Appendix F**.

Planning sessions for this document started in August of 2018 and concluded in February of 2020.

The full schedule of meeting with staff and Board

Month/Date/Time	
9/10/2019 (2-3:30)	Committee meeting
9/24/2019 (2-3:30)	Committee meeting
October	Provide information to staff/BOH for input
11/5/2019 (2-3:30)	Committee meeting
11/19/2019 (2-3:30)	Committee meeting
December	Provide information to staff/BOH for input
1/7/2020 (2-3:30)	Committee meeting
1/21/2020	Committee meeting
1/27/2020	Discussion of priority areas with Board of Health
1/29/2020	Committee meeting
2/2020	Staff Input at regular division meetings
2/24/2020	Board of Health considers draft
7/27/2020	Draft goes before BOH for approval

PH 3.0 Areas:

Quality 1

Public Health Leaders Should Embrace the Role of Chief Health Strategist for Their Communities

Collaboration has been a key element of work over the past few years. The Partnership for a Healthy Community now has a fully functioning Board. As a team we have worked together with our Tri-County partners to successfully complete another cycle of community health needs assessment (CHNA) and community health improvement plan (CHIP). Leaders and priorities have transitioned for the period of 2020-2023 in January of 2020.

Tazewell County Health Department staff and our Epidemiologist greatly assisted this effort with data synthesis and interpretation. New to our partnership was the understanding that all hospitals, health departments, the Federally Qualified Health Center (Heartland Health Services) would work jointly on the same issues and objectives.

Healthy Equity for all is an underlying value in our Partnership for a Healthy Community Initiative. Along with Peoria and Woodford County Health Departments, we are looking to solve issues in a more strategic way. Partnerships, both traditional and non-traditional, will be essential.

As it relates to our Strategic Plan work TCHD Administration and the Board of Health will need to be diligently preparing staff for the new role as Chief Health Strategist in our community. Workforce development skills are needed in the area of marketing, message development, data use, understanding of target interventions and population. Mapping through systems like ArcGIS must be developed. Growth in surveillance of health issues in our community will be an area to target in this plan as our Department now has tools and access to more real time information of illness. This growth of knowledge must also include growth of skills and plans associated with this level of data.

Quality 2

Public Health Departments Should Engage with Community Stakeholders—From Both the Public and Private Sectors—To Form Vibrant, Structured, Cross-Sector Partnerships

Peoria, Tazewell, and Woodford County Health Departments have been collaborating with community partners to create a regional Community Health Improvement Plan since July 2015. This collaborative worked on a joint community health assessment (CHA) and community health improvement plan (CHIP). This relationship has grown and matured resulting in the creation of the Partnership for a Healthy Community.

The Partnership for a Healthy Community (P4HC) is a community-driven effort to improve health and wellness. Multiple organizations, sectors, and the public participate in population health planning to identify and prioritize health needs and quality of life issues, map and leverage community resources, and form effective partnerships to implement health improvement strategies in Peoria, Tazewell, and Woodford Counties. Local data was used to identify health needs and priorities, including those related to health disparities, inequities, and social determinants of health.

Members of the Partnership Board Planning Committee represent the following organizations that collaborated in the creation of the Community Health Needs Assessment and Improvement Plan: OSF Saint Francis Medical Center (OSF), UnityPoint Health |Peoria, UnityPoint Pekin Hospital, Peoria City/County Health Department, Tazewell County Health Department, Woodford County Health Department, Advocate Eureka Hospital, Hopedale Medical Complex, Heart of Illinois United Way, Heartland Community Health Clinic and Bradley University.

Illinois law requires Certified local health departments to conduct a community health needs assessment (CHNA) and to complete a community health improvement plan (CHIP). The CHNA satisfies the requirements of a health department under 77 Ill. Adm. Code 600 to complete a community health plan.

The P4HC has a board and a committee structure that works on health priorities defined in the CHNA and CHIP. Priorities currently being addressed include: Mental Health, Substance Use, Cancer and Obesity.

Quality 3

Achieve Public Health Accreditation Board (PHAB) Accreditation

Tazewell County Health Department achieved full national Accreditation through the Public Health Accreditation Board in November of 2015.

Annually, TCHD reports on progress and maintenance of the work outlined in the Accreditation process. TCHD is reaching the end of our first five years of accreditation which will require us to gain re-accreditation. The re-accreditation process is currently being addressed through management staff and the planning division. Karla Burress, Assistant Administrator is leading the team as they develop responses to requested criteria, identifying gaps and developing any necessary plans to overcome deficits.

From the Public Health Accreditation Website: *Reaccreditation measures and process are not a do-over of initial accreditation. Reaccreditation has been designed to address the impact and contributions of health strategies that improve population health. Reaccreditation ensures that accredited health departments continue to evolve, improve, and advance, thereby becoming increasingly effective at improving the health of the population they serve.*
The process utilized for reaccreditation is different than the initial process. Evidence is still sent into a group of reviewers but new this time will be a virtual site visit. Reviewers will conduct our review remotely communicating with staff through technology.

Work to complete this process and the review will be active through 2020 and into 2021.

Quality 4

Timely and Reliable Data Should Be Made Accessible to Communities Throughout the County. Clear Metrics Should Be Developed to Document Success in Public Health Practice

Great progress has happened in the area of timely and reliable data. TCHD has built capacity through several different ways. The first is getting all staff on the same version of software by investing in the

purchase of Office 365 for all staff. This package also enables the use of the "cloud" for storage and retrieval of documents allowing for remote work.

Two data platforms were purchased to assist with conveying health information to the public. The Network of Care Data site is integrated into the www.tazewellhealth.org website

The product provides a resource for individuals, families and agencies concerned with community health. It provides information about community health services, laws, and related news, as well as communication tools and other features. Regardless of where you begin your search for assistance with community health issues, the Network of Care helps you find what you need.

Additionally, in late 2019, Livestories were introduced taking data and explaining it more in story format. This will be an area that will grow and be further developed in 2020.

Through the P4HC a data team has been established. This team made of up of representatives from each of the member organizations and assigned the task of "mining" and utilizing data already collected through electronic medical records, surveys and other sources to assist in understanding community health issues and impact of interventions.

Lastly, in 2019 TCHD received funding for Opioid Surveillance. Through this funding training access to ESSENCE was given to our health department. Electronic Surveillance System for the Early Notification of Community-based Epidemics (ESSENCE) software is a system that inputs electronic emergency department (ED) data for the purpose of syndromic surveillance.

ESSENCE groups chief complaints from electronic ED data into 'syndrome' categories. This information is used to determine if the number of visits is greater than expected for that facility based on historical data. Chief complaint examples: hemorrhagic illness, influenza-like illness, injury, neurological, rash, respiratory, and coma.

This capacity will build our agency's ability to gather information and to respond to issues in our community that are emerging.

Quality 5

Funding for Public Health Must Be Enhanced and Sustainability Modified

Funding has become more stable in the last two years as the state has been able to achieve budgets that are timely. A constraint in funding has come through changes to managed care within the state and shutting down of funds that had previously come to public health but are now being captured by the insurance companies operating for those on public assistance. Examples of match funding for administration of programs such as dental and family case management and direct programming of High Risk Healthworks are recent funds that have been affected.

New funding or expanded funding of programs has helped to offset some of the reduction. Expanded funding has occurred with Tobacco, Radon, Substance Use Prevention Services and Illinois Breast and Cervical Cancer. New funding areas include: Opioid Surveillance, Teen Pregnancy Prevention

Program, and Illinois State Physical Activity and Nutrition. Expansion of some billable service areas that are better able to be controlled by TCHD directly are in process.

An area to be addressed is working with afterschool program staff and increasing their pay to meet minimum wage standards. Professional staff wages and benefits are of concern and are raising to areas of concern that will be addressed by this plan. Changes of pay structure because of internal or external decisions is a factor that can affect the funding levels of TCHD budgets.

Goals, Objectives, and Strategies 2020-2024

Sustainability of Agency and Workforce	
Goal #1: Expansion of Services	
Objective	Strategy
1. By December 2020 have an Advanced Professional Registered Nurse hired and providing services to TCHD's Women's Health clients.	A. Onboard an APRN by February 2020.
	B. Create the necessary credentialing and billing channels by April 2020.
	C. Complete client surveys to gage interest in TCHD's APRN services by May 2020.
	C. Introduce the onboarded APRN to the tri-county OB/GYN community and other practices that serve women's health by June 2020.
	D. Begin to see women in TCHD Clinic by 7/2020.
	E. Monitor APRN billing and services monthly to ensure program sustainability.
2. By July 2021 conduct a feasibility of coordinated intake for Senior Mental Health and Social Work Services and begin implementation of services.	A. Conduct a feasibility study amongst current healthcare organizations providing mental health services in Tazewell County by 8/2020.
	B. Create the required billing channels as recommended from the study by 10/2020.
	B. Research and select a technology platform to coordinate intake and referrals amongst providers by 10/2020.
	C. Market and educate providers including TCHD staff on the selected central referral system by 11/2020.
	D. Begin a pilot phase to test the intake and referral processes Manage referrals/intake by 11/2020.
	E. Address any issues within the pilot and launch a county wide Coordinated Intake process surrounding Senior mental health services by July 2021.
	F. Identify community partners with potential MSW students and assist with improving career pathways to Mental Health providers. Sign agreements accordingly by 10/2020.
3. By December of 2021 establish Dietitian Services within TCHD.	A. Select committee for feasibility study by July 2020.
	B. Identify potential gaps for the community that this position my fill and or assist with health priorities by September 2020.
	C. Look at potential billing opportunities for area identified as gaps by December 2020
	D. Create a plan with detail on sustainability for presentation to BOH by March 2021
	E. Work with Budget process to add position to TCHD by October 2021.
	F. Hire position if applicable by December 1, 2021.

Goal #2: Ensure Appropriate Pay and Benefits	
Objective	Strategy
1. By December 2022 ensure TCHD offers competitive wages and benefits to current and perspective employees.	A. Conduct a wage and benefit study comparing TCHD to like agencies (public health, hospital, private, industry) by June 2021.
	B. Develop a report outlining findings by December 2021.
	C. Present report along with recommendations (if applicable) to the Board of Health by March 2020.
	D. Present to county board in alignment with FY23 budget meetings.
2. By June 2022 conduct an evaluation study to determine how the evaluation system works in relationship to wages.	A. Conduct an evaluation study, testing cases to determine the overall ratings impact on retention and compression by June 2021.
	B. Develop a report outlining the findings including recommendations for improvement (if applicable) by December 2021.
	C. Revise the current evaluation procedure/tool accordingly by May 2022 to be utilized throughout the 2022-2023 evaluation period.
Goal #3: Increase Staff Retention	
Objective	Strategy
1. By June 2021 complete a workforce retention study and summary report including both internal and external findings.	A. Research like agencies retention plans (wages, benefits, interview process, onboarding process, work weeks) by June 2021.
	B. Interview current TCHD staff to determine why they stay with the agency by December 2021.
	C. Study exit interviews bi-annually to Identify trends amongst those leaving the agency and address comments accordingly.
	D. Develop a report of findings prior to December 2021 outlining recommendations.
2. By June 2022 create a workplan from the workforce retention study including actionable measures for each fiscal each year.	A. Determine what recommendations are within TCHD's capacity to accommodate by March 2022.
	B. Develop a workplan including actionable measures to incorporate the approved recommendations by June 2022.

Population Health Focus

Goal #1: Program Planning

Objective	Strategy
1. Annually ensure 100% of TCHD health promotion policies, programs, process, and interventions are strategic and address populations that have higher risks for poorer health outcomes.	1. Ensure 100% of health promotion programs are utilizing best practices.
	2. Ensure 100% of health promotion programs are created and implemented as a collaborative process with community partners, stakeholders, or community members.
	3. Ensure 100% of health promotion programs consider inclusion of health equity factors for specific populations.

Goal #2: Increase Public Health Awareness

Objective	Strategy
1. 90% of identified staff members will be educated on public health awareness topics and trained how to market public health programs/messages through an awareness lens.	A. 90% of identified staff members will be trained annually surrounding marketing outreach to establish consistency in messaging with the why data in mind (how to construct Why data messages)
	B. 90% of TCHD workforce will receive public health awareness education annually per Core Competency group assignments. (monthly awareness messages vs face-to-face)
2. Track marketing messages quarterly to ensure the "Why" message is included when submitted to management.	A. 50% of marketing messages sent in FY21 will include an appropriate "Why" message.
	B. 75% of marketing messages sent in FY22 will include an appropriate "Why" message.
	C. 90% of marketing messages sent in FY23 will include an appropriate "Why" message.
3. Public Health awareness campaigns will occur quarterly throughout FY21-FY23.	A. Birth to 5 will provide marketing information for at minimum 2 public health awareness campaigns.
	B. Business Operations will provide marketing information for at minimum 2 public health awareness campaigns
	B. Clinic will provide marketing information for at minimum 2 public health awareness campaigns.
	C. Community Health will provide marketing information for at minimum 2 public health awareness campaigns.
	D. Environmental Health will provide marketing information for at minimum 2 public health awareness campaigns.
	E. Office of Planning will provide marketing information for at minimum 2 public health awareness campaigns.

Goal #3: Ensure Health Equity	
Objective	Strategy
1. Ensure equitable access to quality services and education amongst those represented within Tazewell County identifying a minimum of 2 priority areas per year. (FY21-FY23)	A. Complete the Advocates for Access Accessibility Audit and develop a workplan per the recommendations by June 2021.
	B. Access select programs/curriculum for best practice models surrounding LGBTQ+ populations and make the appropriate programmatic/curriculum adjustments as recommended by May 2021
	C. Determine FY22 priority areas by May 2021.
	D. Determine FY23 priority areas by May 2022.
2. Annually monitor agency and division workplans to ensure health equity.	A. Ensure 100% of TCHD programs have completed the Health Promotion Program Planning checklist per procedure.

Communication and Cooperation	
Goal #1: Increase Staff to Staff Communication and Cooperation	
Objective	Strategy
1. Increase Staff to Staff Communication and Cooperation ratings to a __4__, as reported on the annual Employee Satisfaction Survey.	Presentations - EAP or other organizations Conflict in the Workplace Model Positive Attitude
	Division Retreat – Team Building Focus
	Interdivisional Retreats – 4 x per year
	Role Awareness – Job Shadowing, employee spotlight?
	BE Kind Campaign – staff led, snack/social hour, etc.

APPENDIX A

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

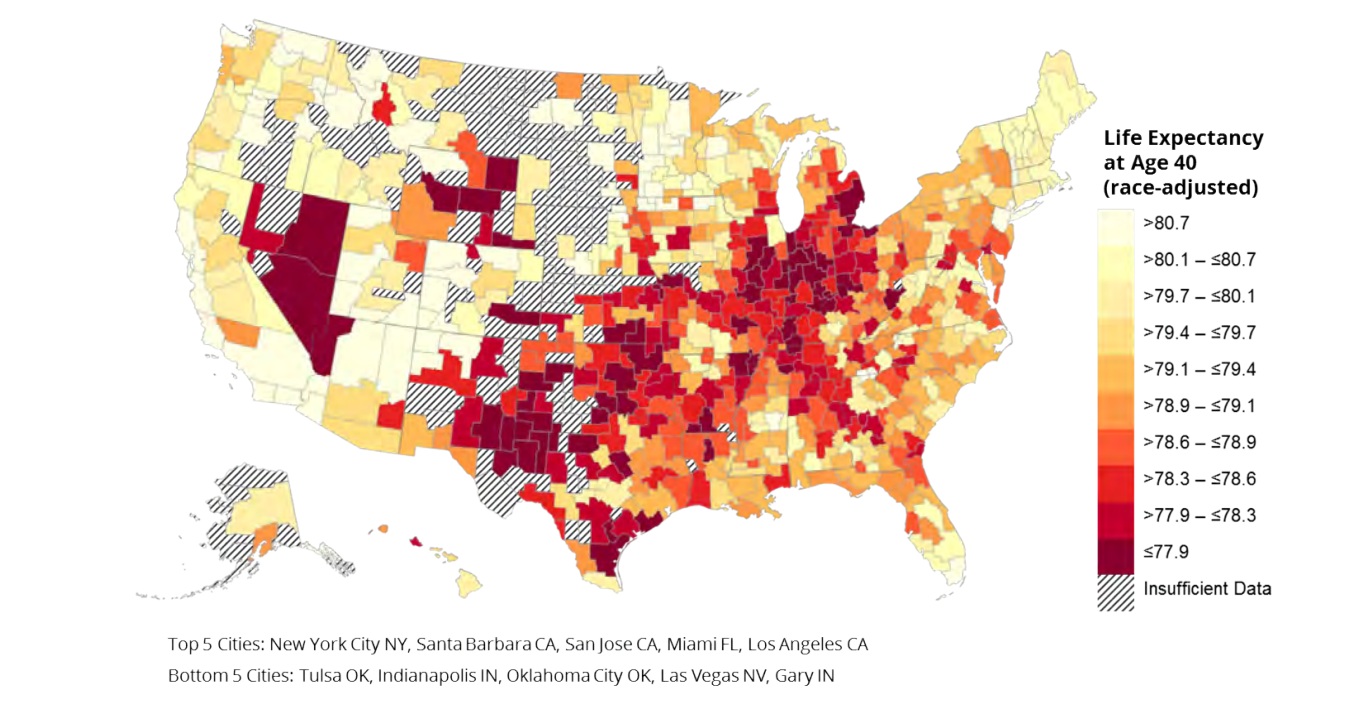
Key Influence of Social Determinants of Health

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

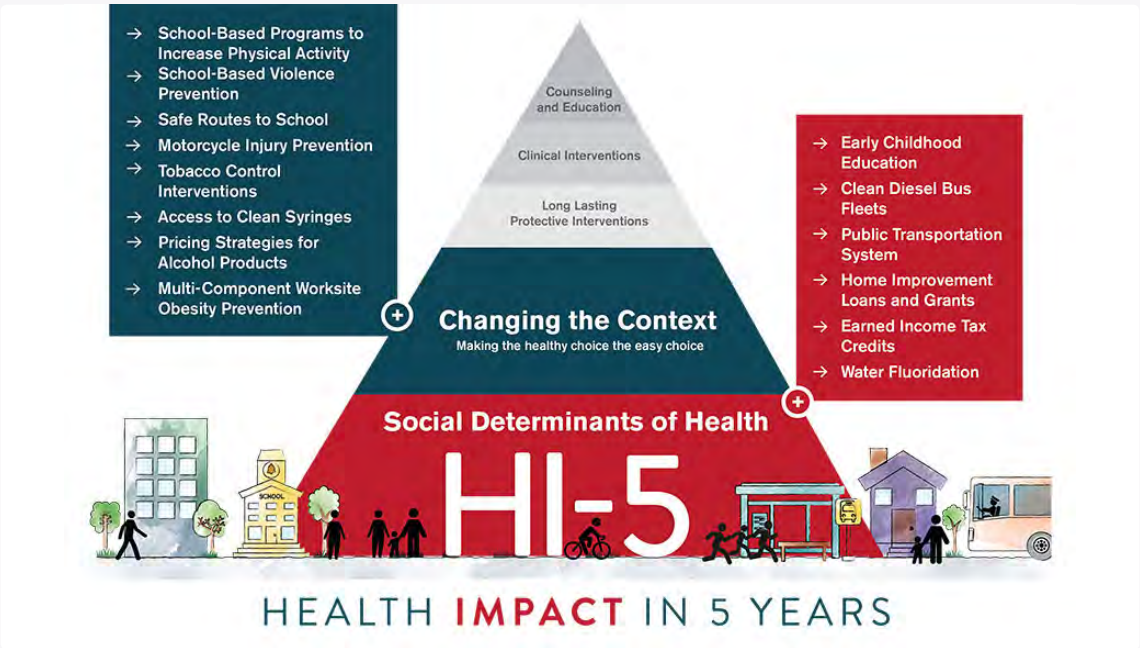
spending on medical care, had significantly better subsequent health outcomes.[16,17] Unfortunately, the 2008 recession precipitated a large and sustained reduction in state and local spending on public health activities.[18] Nearly two-thirds of the U.S. population in 2012 lived in jurisdictions in 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*[2,3] 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

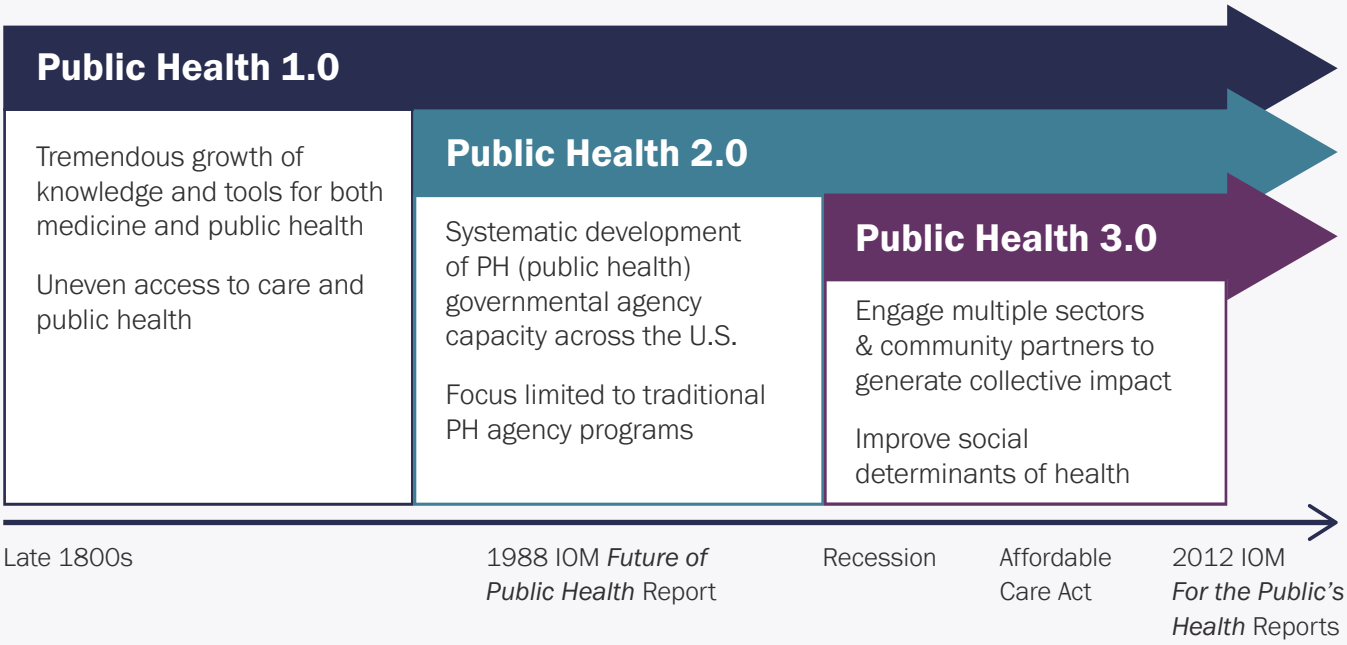
such as epidemiology and laboratory science. This scientific and organizational progress meant that comprehensive public health protection—from effective primary prevention through science-based medical treatment and tertiary prevention—was possible for the general population.

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/

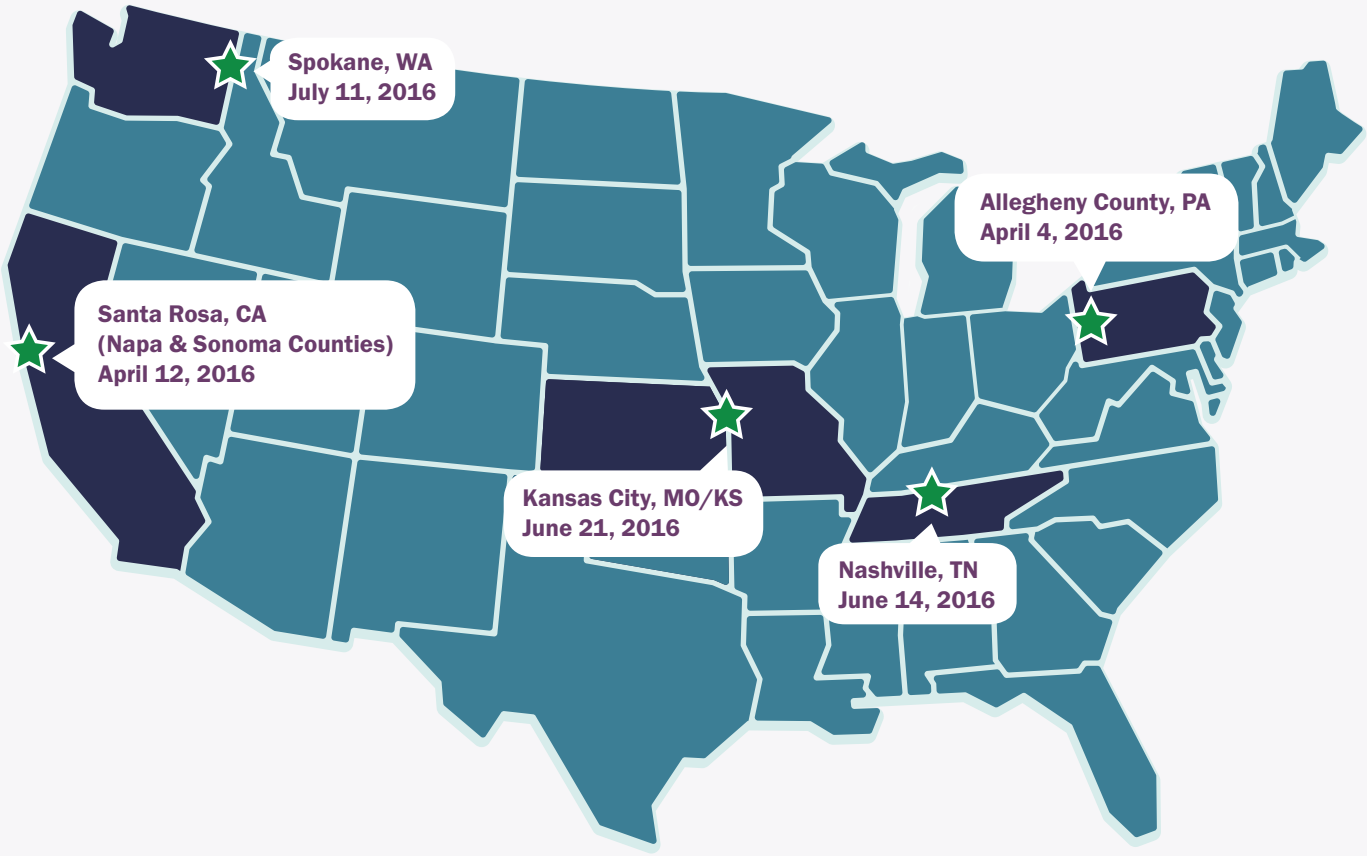
The National Dialogue

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

APPENDIX B

The High Achieving Governmental Health Department in 2020 as the Community Chief Health Strategist

Public Health Leadership Forum

This paper was prepared by RESOLVE as part of the Public Health Leadership Forum with funding from the Robert Wood Johnson Foundation. John Auerbach, Director of Northeastern University's Institute on Urban Health Research, also put substantial time and effort into authoring the document with our staff. The concepts put forth are based on several working group session (See Appendix B for members) and are not attributable to any one participant or his/her organization.

RESOLVE

May 2014

The High Achieving Governmental Health Department in 2020 as the Community Chief Health Strategist

Public Health Leadership Forum

Background

Local and state health departments need to adapt and evolve if governmental public health is to address emerging health demands, minimize current as well as looming pitfalls, and take advantage of new and promising opportunities. To succeed requires a view into the future. This paper provides that vision. And, importantly, it zeroes in on what a high *achieving* public health department of the future will be doing differently. It does so not with a comprehensive inventory of tasks but rather with a distillation of the most important new skills and activities essential to be high achieving and serve in the role of the *community chief health strategist*.

A working group of public health practitioners and policy experts was convened by RESOLVE as part of the Public Health Leadership Forum with funding from the Robert Wood Johnson Foundation (See Appendix B for a list of members). The working group purposely set a time frame of public health in 2020 – just six years into the future – in order to look far enough ahead to provide a compelling beacon, while staying close enough to the present to emphasize the urgency of taking immediate steps to start the process of change and build the leadership necessary to be successful.

Vision

The core mission of public health remains the same: the reduction of the leading causes of preventable death and disability, with a special emphasis on underserved populations and health disparities. This is our perpetual north star. But *how* we achieve that mission has to change, and change dramatically, because the world in which we find ourselves is very different than just a few years ago, and it will continue to rapidly change. Unless we recognize the new circumstances and adapt accordingly, public health will not just be ineffective, it runs the risk of becoming obsolete.

Just what are the conditions that have brought about the need for this overhaul and a call for new practices and skills? A short list includes:

- *The health care needs of the population are changing*. The prevalence of chronic disease has skyrocketed as life expectancy has increased and other causes of death have

decreased. Much attention has appropriately focused on obesity and asthma in the last several years, and health departments have scrambled to find the necessary resources to respond. In the coming years these diseases are likely to continue to remain priorities, but in addition, health departments will need to focus on other chronic diseases that are leading preventable causes of morbidity as well such as those associated with behavioral and oral health and sensory-related disabilities.

- *The demographics of the country are changing*. The increased prevalence of the chronic conditions mentioned above will continue as the elderly and very elderly (over 85 years of age) population grows. Public health departments will face the challenge of developing strategies to help elders maintain their independence and quality of life. The continuing growth of the Latino population and other populations of color could intensify the already existing health disparities even as access to care increases for many. To date, our public health successes have not often been evenly effective by class and race. As a consequence and particularly in poorly resourced areas the preventable disease burden of the future will require new approaches perhaps drawn from the global health arena.
- *Access to clinical care will change in a post Affordable Care Act (ACA) environment*. Although there will be differences from community to community, access to clinical care will likely grow everywhere due to an increase in public and private health insurance coverage. As a result some services traditionally provided by public health departments will be covered by health insurance. This change will mean that the role of public health departments as the safety net provider will be diminished and in some instances eliminated entirely. At the same time there will likely be an enhanced role of such departments in assuring that the care provided by others is accessible as well as high quality, prevention-oriented and affordable.
- *An information and data revolution is underway as the world changes to an internet-based, consumer-driven communications environment*. Public health's role as the primary collector of population health information will be reduced as new, diverse and real-time databases emerge. However, the public health role as interpreter and distributor of information will become more pronounced. Governmental public health will have the responsibility for surveying and aggregating the many sources and ensuring accessibility of the essential information in understandable formats.
- *As attention to the factors contributing to chronic diseases increases, the non-health sectors will often be the key to optimizing the health of the public.* Public health's role will involve working collaboratively with these diverse sectors – be they city planners, transportation officials or employers – to create conditions that are likely to promote the health and well-being of the public.

In combination, these new required practices might be characterized as creating a sweeping new role, one we are calling the *"chief health strategist"* of a community. This new role builds upon the past and present functions of health departments and is a critical evolution necessary to be a high achieving health department in the near future.

Public health departments functioning as chief health strategists should retain, refine and defend the programs that are currently successful, such as environmental health, infectious disease control, all hazards preparedness and response, and other skills, strategies and programs essential for protecting and improving the health of communities. But as the chief health strategist, public health departments' roles will differ in significant ways.

Departmental representatives will be more likely to design policies than provide direct services; will be more likely to convene coalitions than work alone; and be more likely to access and have real-time data than await the next annual survey. Additionally, chief health strategists will lead their community's health promotion efforts in partnership with health care clinicians and leaders in widely diverse sectors, from social services to education to transportation to public safety and community development. The emphasis will be on catalyzing and taking actions that improve community well being, and such high achieving health departments will play a vital role in promoting the *reorientation of the health care system towards prevention and wellness*. Health departments will also be deeply engaged in addressing the causes underlying tomorrow's health imperatives.

While it won't be easy for health departments, even those with the most resources, to achieve this vision of becoming chief health strategists in their communities, it is imperative. Even the smallest of health departments can take partial steps, and some departments are already changing to meet the new demands, and can provide examples for others to follow.

The vision of high achieving health departments serving as community chief health strategists may seem ambitious, particularly for those health departments that are small or under-resourced, and we recognize that many agencies will not be able to adapt quickly. Change across our nation's diverse health departments will occur at different times and at different paces, nut beginning the process is necessary for departments of all sizes whether or not they have lost resources. The demands of the future are unavoidable. Governmental public health must be ready to meet them.

Key Practices of the Chief Health Strategists of the Future

High-achieving local and state governmental health departments of 2020 serving as the community's chief health strategists will share several key practices, seven the working group identified as the newest or most unique are highlighted below. Following the description of the practices, we suggest a beginning menu of steps that health departments large and small can take in order to begin to work toward at least the first practice in the next few years.[1]

PRACTICE #1: Adopt and adapt strategies to combat the evolving leading causes of illness, injury and premature death.

Starting in the first few decades of the 20th century, public health departments focused great attention and received considerable funding to fight infectious disease. This orientation of funding reflected the dominance of such diseases as tuberculosis, food-borne illness, and influenza as causes of death in the early part of the century. While improved water and sewage-system regulations, widespread public education, and medical interventions helped address those illnesses, the HIV and then the H1N1 epidemics made clear the continuing health threat posed by infectious diseases, which remain serious health concerns in the U.S. These health threats will require adequate resources to maintain the progress that has already been made, as well as address new infectious disease challenges.

But health departments lack the equivalent capacity to prevent and respond to today's leading causes of illness and death: heart disease, cancer, lower respiratory illness, stroke, and unintentional injuries and overdoses. Unlike infectious diseases, many of these involve chronic conditions that require years if not decades of expensive care and control. Today's public health budgets are not properly aligned or sufficiently funded to tackle these now leading causes of illness, injury, and premature death. Current funding and programs are in fact more reflective of the health concerns of the past than of the present, let alone the future.

Here is where health departments of the future need to shift their focus and the funding streams must follow. Chief health strategists of the future will be able not only to *anticipate* those factors contributing to death and disease in a community, but be able to identify and secure the essential resources necessary to focus attention on chronic disease prevention. The health department strategists of the future will need to focus on the ongoing as well as emerging leading health concerns with the same intensity and strategic skills they once directed toward eliminating tuberculosis.

The most effective preventive solutions for these chronic conditions are often similar across disease categories. The widespread benefits associated with modified and improved conditions at community work places or schools, such as infrastructure for fresh fruits and vegetables and

[1] We look forward to gathering additional action steps for the other practices as this paper is disseminated more broadly.

locating near parks and other open spaces, to support the concurrent behavioral changes of improved diet and exercise, for example, can help individuals and communities that share multiple and interacting risks and health conditions. But prevention efforts that would substantially reduce deaths by addressing tobacco use and obesity are currently underfunded—dangerously so.

And while more needs to be done to address tobacco, obesity, heart disease, cancer and stroke, there are other challenges that will be increasingly appearing on our radar screen. For example, the lack of progress that has been made in reducing the prevalence of disabilities related to behavioral health, musculoskeletal disorders, and sensory loss, will become ever-growing problems if unaddressed as the make up of our communities change and as life expectancy increases. To effectively and efficiently improve community health, public health departments as chief health strategists must keep up to date not only with *what* is threatening people's health, but also *who* is most at risk – discussed in Practice #2 below.

To summarize: the high-achieving health department of 2020 serving as the chief health strategists must understand and address the primary causes of illness, injury, and premature death. These departments will ensure that their efforts are aligned with the needs of the growing prevalence of disabilities; that they have developed expertise in the prevention and/or treatment of chronic conditions; that they are continually looking to and preparing for the newly emerging health trends; and that they are seeking, securing and channeling resources to be successful.

PRACTICE #2: Develop strategies for promoting health and well-being that work most effectively for communities of today and tomorrow.

Demographic trends are shifting the make-up of our communities, rendering some of our focus and community health strategies outdated. If not updated, these changes will potentially compound some of our current weaknesses. By 2020, baby boomers will be over 65, and the percentage of the population that is elderly will be larger than ever before. This shift will intensify the need to focus on the health of the elderly, the importance of preserving their quality of life and the prevalence of such conditions as dementia, as well as paying more attention to their preventable health concerns, such as the injuries resulting from falls.

The country will also be more racially and ethnically diverse, as the non-white population edges toward outnumbering the white population for the first time. And unless we tap new strategies to more effectively confront and reduce health disparities, not only will these disparities increase, they will jeopardize the overall health and well-being of our communities even more extensively. To date our public health advances have often been less successful at reducing class and racial disparities. The preventable burden of the future will differentially require new,

health equity approaches including those that specifically improve health in poorly resourced areas.

These and other changes will compel the health departments of 2020 as the chief health strategists to focus on the health needs and concerns of the fastest-growing populations. Health departments that have historically focused on maternal and child health activities – understandable as high level of death and disability were occurring in infants and pregnant women in communities of the past. However, now – in communities of today and because of successes we have had with maternal and child health issues - health departments will need to broaden their vision to include the elderly as they become a larger proportion of the community and the injuries and illnesses they experience become a more significant variable of overall community health. Health departments also will need to pay greater and greater attention to people of color and Latinos, Asian-Americans, and other immigrants. Demographic shifts may also be accompanied by socioeconomic changes such as a growing income gap and concurrent inequalities in health outcomes. The state and local health departments as chief health strategists should be the trusted source regarding emerging demographic and health trends.

The high achieving health department and health strategist must address the needs related to emerging demographic patterns, and the health inequities experienced by specific sub-populations. Chief health strategists need to answers these questions for each community:

- What are (and will in the future be) the greatest health threats, and who is (and will be) most at risk?
- What will it take to reduce these threats and reach the greatest number of high risk populations with whatever resources are available?

A starting point is to have access to accurate, timely, and understandable data. And that leads to the next essential practice.

PRACTICE #3: Chief health strategists will identify, analyze and distribute information from new, big, and real time data sources.

Public health has always been an information-based discipline. That's its stock in trade. But the old ways of collecting and analyzing information are no longer sufficient. The nature of information technology, information sources, and public expectations of accessibility are changing, and public health needs to rapidly adapt and evolve in response.

Other new and often big data sources can help correct that. Future health departments as strategists should be able to retrieve certain up-to-date clinical data from Electronic Health Records. Among the other sources used will be "big data," data sets so large and complex that

traditional processing and management approaches don't apply. Health departments are unlikely to have data systems within their control that are large enough to capture all the necessary behaviors, attributes, and community determinants of health.

Instead, by 2020 health departments as chief health strategists may submit regular requests for data from Medicaid, Medicare, from all payer claims, or even outside of the health arena, from city planners, schools, and public safety officials. The strategist will need to look beyond the usual health-related data sources to patient-initiated feedback from social media and to extract data from search engines.

Once these data are collected, assessed, and aggregated, the public health departments as chief health strategist will not just make these data available but analyze them and translate the health implications of identified trends and hot spots, as well as share this information with the public, providers, partnering agencies, and policy makers to inform community-wide decision making and actions collaboratively in order to improve overall health and well being. The chief health strategist's responsibility is to the community it serves, and communities will want and should have meaningful interpretations of what information means for them and their health. The goal, in addition to informing the broad community, will be to offer a more comprehensive picture of health that will deepen their and their partners' understanding of the complex factors affecting the health of a community.

But by 2020, the obligation of health departments as strategists will go beyond accessing and analyzing data to providing information. Health departments will make information accessible for users to customize questions whenever they are needed for whatever purpose they are needed. Data collection and analysis must move closer and closer to real time. It will be unrealistic and unacceptable, in 2020, to wait one year or longer to have the latest reported information on, for example, infant mortality and diabetes rates, as is currently the case.

The health department as the chief health strategist will be prepared to answer what is happening in the current year and not what was happening one, two, or even three years ago. How will the health department as strategist get that information? One way is for clinicians, hospitals, and health departments to look to up-to-the-minute reporting of dangerous infectious disease outbreaks and the response to them. In recent years there have also been numerous examples of the value of rapid responses to clusters of health care associated infections. Access to such information might not require the regulatory-imposed reporting systems of infectious disease thanks to the evolving opportunities to access such data through meaningful usage agreements. In a growing number of communities there are local health information exchanges that can become intermediaries, collecting the data in a format that is usable by a health department without requiring unrealistically sophisticated IT capacity.

The range, freshness, and subtlety of new data sources can make the health department as strategist of the future far more responsive and effective than in the past. With such data health departments can, and good strategists will, focus interventions to more effectively serve populations with disparities. They will be able to evaluate ongoing interventions with more precision and accuracy. And with access to new kinds of data, the high achieving health department as strategist can respond quickly and inventively to chronic disease diagnoses, not just infectious disease outbreaks. If clinicians identify clusters of newly diagnosed asthma cases in one neighborhood, for instance, the public health department can determine which neighborhood environmental factors can be altered in order to reduce future incidence. This means that health departments as chief health strategists of the high achieving departments will need new kinds of skills. Mobilizing the department's existing resources to respond most effectively to the new health priorities will require familiarity with multiple data sources, the ability to advocate for access to those data sources, and then the ability to extract and interpret new data and share the most meaningful findings with the health department's partners and the public. Analysis, energy, and imagination will be essential characteristics; so will clear communication and the ability to make the complex seem simple.

Clear, accurate, and well-analyzed data will be especially important as health departments as strategists expand their partnerships to include multiple governmental agencies and community-based organizations that may be less familiar with health indicators and disease causation – as the next section will make clear. And above all, health departments as strategists will strive for increased accessibility of information to the community by such means as tapping friendly interfaces to accessible information and increasing sophistication in the use of social media.

In these efforts, high achieving health departments will rely heavily on one particular segment of the larger community – health care providers and facilities. The chief health strategist will understand, reach out to and collaborate with key partners in the health care community. These key allies and alliances promote good health, of course. But they may also be crucial in answering the all-important question of how high achieving health departments as chief health strategists of the future will fund community mobilization and policy-oriented campaigns – namely by redirecting funding from services for which they no longer need to pay. This leads to the next practice.

PRACTICE #4: Build a more integrated, effective health system through collaboration between clinical care and public health.

With some notable exceptions, the American public health and the clinical care systems have long been separate and distinct. One is focused on population groups and the other on individual patients; one is largely funded by the government, the other mostly by insurers.

Today, the two systems sometimes interact - for example, through infectious disease reporting during an outbreak like measles or pertussis, or when a community health center or a hospital needs a license. Numerous health departments directly provide or fund a limited number of clinical services such as immunizations or treatment for sexually transmitted infections. A few departments even run their own federally qualified community health centers. But these are the exceptions, not the rule.

This separation of public health and health care has not served us well in our overall goal to create a system that improves health. That can and must finally change. The high achieving health department as chief health strategist in 2020 will form close and interactive relationships with the clinical providers and health insurers in its municipality. The chief health strategist will know who to connect with and how best to make these connections, as well as work within the financing network to make respective efforts viable.

There are several reasons why this change will occur. The ACA is increasing health care access to millions of additional Americans and decreasing (although not eliminating) the need for the public health system to provide safety-net services such as immunizations, STD treatment, and family planning services.

Collaboration with Clinical Partners

In Massachusetts, a Prevention and Wellness Trust was created in 2012 by the state legislature, which awarded $60 million to the Department of Public Health to oversee a process of establishing community-clinical partnerships to promote health and reduce costs. With this resource, the health department has funded 9 collaborative initiatives made up of municipalities, community-based organizations, healthcare providers, health plans, regional planning agencies, and worksites. The activities funded include enhancing community-clinical relationships, lowering community members' barriers to optimal health, identifying health-related community resources, tracking referrals to and the use of community resources in clinical records, and using quality improvement to strengthen community-clinical process and linkage.)

By 2020, health departments as chief health strategists will have conducted careful analyses of the available and accessible clinical services in their communities and determined if their departments should continue to provide them, at what level, and for whom. The high-achieving health department will reduce, eliminate, or significantly adapt its provision of direct services, implement billing practices where services are still needed, and may shift to primary care providers some activities such as tuberculosis care and disease intervention so they are more integrated.

As more people have access to care through expanded health insurance benefits, governmental public health can increasingly serve an expanded health assurance function – linking those in need with potential providers rather than offering the services themselves. And they can play an increased role in monitoring and reporting on community access, cost, and quality of treatment care.

Departments may identify certain new services they can provide to complement those offered by clinical providers. One example: bundled packages of home visits by educators and risk reduction specialists to women with high-risk pregnancies or to families with a child who has moderate to severe asthma. Such services can be new generators of revenue, offered to insurers and clinicians in exchange for reimbursement. A second example involves using community health workers or other strategies to help patients address the social determinants of health, linking with opportunities for improved housing, employment training, or family unification.

Another dynamic changing the landscape is the continuing rise of health care costs and associated interest by the health care community in turning to partnerships to leverage their ability to improve health. The widening range of state and national payment reform initiatives will bring with it new possibilities for linkage between public health and clinical medicine. The movement away from the predominant fee-for-service to a global, value-based system of reimbursement should open the door for greater partnership and to the allocation of new revenue to support public health efforts. New global payment systems can potentially add population-based outcome measures to the list of quality measures that must be met to maximize reimbursement. For example, if clinicians have a financial incentive for their patients to stop smoking, they may seek the involvement of the local or state health department. And in turn, departments can share in the revenue incentives.

Such possibilities also build upon the momentum created by the ACA's provision that hospitals must develop community health assessment reports or face penalties from the IRS. Many hospitals have sought the guidance of and/or collaborated with their public health departments to meet that requirement. The health departments of the future will strive to solidify those connections, and to ensure that those connections result in the investment of hospital resources in population health initiatives. In addition, health departments may seek out or solicit new strategies for innovative investment in community prevention, for example through the use of wellness trusts and social impact bonds.

High-achieving health departments as chief health strategists will fight for a seat at the table where payment reform and insurance expansion are being determined in their states and localities, alongside the usual participants of Medicaid, private insurers, and providers. To achieve this goal by 2020, chief health strategists must develop new knowledge and skills in

such areas as benefit package design, identification and analysis of health metrics, and analyses of return on investment.

Finally, the movement to near-universal use of electronic medical records (EMRs) governed by the ACA's required "meaningful use" provisions will offer access to new and timely data, as discussed in Practice #3. And EMRs may assist in the tracking of patient referrals and the usage of community-level services supported by public health such as smoking cessation services, chronic disease self-management training, and home visits by community health workers.

In summary, the high achieving health department as chief health strategist, then, will take advantage of the numerous opportunities to join the efforts of public health, clinical providers and insurers. Health care and payment reform will allow for innovative collaboration such as linking smoking cessation treatment with community level cessation groups and expanding smoke-free regulations. Departments will face challenges in the process, as they reduce their own direct services and refer newly insured residents to primary care medical homes and as they strive to acquire a new understanding and appreciation of insurance practices. Additionally, as health departments work more closely with clinical partners, they may also learn useful lessons about quality improvement measures and transparent goal setting and monitoring – aspects of the health care business model that can be integrated into the high achieving health department's in 2020 and beyond. They can then look inward and identify some of the organizational system changes in their own departments that will help them function more efficiently and effectively. The following practice highlights why it will be important for departments to be on the lookout for those lessons, as well as Practice #6 which pushes further the need for improved business systems.

PRACTICE #5: Collaborate with a broad array of allies – including those at the neighborhood-level and the non-health sectors – to build healthier and more vital communities.

A century ago, as public health advocates grappled with deadly infectious diseases, they looked to other disciplines for assistance. They knew they would need the involvement of other kinds of authorities if they were going to solve the problems associated with, for example, water-borne and air-borne infections, which spread rapidly in the living conditions of the poor. It was changes in housing codes and municipal investments in sewer systems, plumbing infrastructure, swamp drainage, and aerial insecticide spraying that saved more lives, faster, than public information campaigns or even medical breakthroughs could.

The conditions today and in the future are clearly different. As mentioned in Practice #1, it takes more focused teamwork within the public health community, with new and different skills and strategies, as well as cooperation and coordination with the health care community, when grappling with chronic conditions instead of infectious disease. But there are some

additional lessons in the past successes worth learning from and adapting to the present. And among them is the importance of working beyond a limited circle of partnerships – even a more expanded team among health and human service organizations. There is once again the need for cross-disciplinary collaboration and close partnerships with non-health-oriented organizations.

Environmental irritants in the home, the workplace, and the community contribute to ever-rising asthma rates, to choose one current and pressing example of an illness that requires collaborations among diverse non-health – oriented agencies and community leaders as well as those in the public health and health care sectors. In order to reduce these asthma triggers, health departments need to align their particular skill sets, as well as form partnerships with the medical community, landlords and housing code inspectors, employers and unions, polluting businesses and environmental regulators – to name just a few.

But developing the needed partnerships with other sectors takes time, training, and specialized personnel, and those partnerships will happen only if they are made to be priorities. Much of our work with these sectors will need to be through adaptive leadership and influencing without direct authority. These partnerships will require developing experience and skills among non-governmental organizations and other community leaders with how to effectively navigate regulatory and legal processes at the local and state levels and to influence policy. But they will also require understanding and respecting the priorities, goals, and objectives of other public and private, governmental and non-governmental agencies and organizations.

Building Community Coalitions

The Robert Wood Johnson Foundation's County Health Rankings initiative has prompted the creation of a number of broad-based community coalitions to tackle local health problems. One such effort was in Scioto County, Ohio, which was ranked last among all 88 Ohio counties in 2012. That ranking motivated community leaders to convene meetings of stakeholders to set the agenda for helping improve the county's health. Local health departments played a key role in providing data, identifying needs and gaps, and highlighting other efforts that were already underway. The initial coalition members decided to broaden the group so it would include people from contiguous counties in urban Kentucky that were facing similar issues. While the meetings were initially primarily of health professionals, they soon included teachers, superintendents of schools, clergy, law enforcement officials, and large employers. An early project involved improving childhood immunizations by linking schools and electronic medical records.)

It is not just diseases that require cross-disciplinary partnerships. It is the socio-economic conditions that foster them and make them worse. As health departments confront and address health disparities caused by economic inequality, racism, and discrimination, they need to take a broader approach. Factors as diverse as housing segregation, high school dropout rates, gang violence, and unemployment contribute to elevated risk for illness, injury, and premature death in low-income and minority communities. Working on these issues can, it is true, push most health departments out of their comfort zones. Nonetheless, the high achieving health departments as chief health strategists of the future will speak out compellingly on the connection between these issues and specific health outcomes, and then work collaboratively to change those factors to improve health outcomes.

The health department of the future will also encourage and support the leadership of community members in the efforts to promote healthy conditions. By training, informing, and nurturing leadership in neighborhoods with elevated health problems, the chief health strategists can develop a valuable and long-term resource for health promotion and, in essence, expand the public health base.

The Surgeon General's National Prevention Strategy of 2011 touts the importance of a health department's active engagement with community members and organizations. Community efforts, the report says, help people "take an active role in improving their health, support their families and friends in making healthy choices, and lead community change."[1]

Health departments should thus explore the possibility that federal resources can support local and state health departments in convening broad-based collaborative efforts at the community level. But with or without federal funding, such convening is necessary.

In summary, by 2020 chief health strategists will identify, pursue and establish effective partnerships with those in positions to make a difference in the community's health. In addition to partnerships with others in the health system, as well as other governmental agencies, 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 grass roots level to help carry out those plans. In community-based collaborative efforts, health departments will share the latest findings on evidence-based action steps and, if possible, give community coalitions grants and other resources.

Partnerships can be catalyzed and fostered through the provision of access to information and unique skills that others see as adding value to their respective endeavors, as well as joining in meaningful collaborations. Additionally, potential and ongoing partners and patrons alike are drawn to professional practice and conduct, and business practices are key elements in demonstrating value.

PRACTICE #6: Replace outdated organizational practices with state-of-the-art business, accountability, and financing systems.

Not surprisingly, the training most public health professionals received in school and on the job is insufficient to handle the challenges of the future and as the health enterprise changes. Mining big data? Tapping social media for epidemiological information? Embedding population health metrics within value-based insurance contracting? Participating in designing bidding packages for major transportation projects? These aren't in the job description or the skill sets of the employees in most public health departments. But they need to be… and soon.

To assume the mantle of chief health strategist, health departments need to retool and retrain and seek new employees with updated required skills. The high achieving health department of 2020 will have the personnel, know-how, and technological tools to handle the variety of required tasks. By 2020, the health departments as chief health strategist will have assessed the necessary skills - particularly the newer ones required – and compared them with the skills of the current workforce. Where they don't match, the health department will develop a plan to either rewrite job descriptions or hire people with the needed skills as positions become available. Or, it will investigate and pursue re-training opportunities for the current workforce, prioritizing the skills that are most essential.

Public health programs operate inefficiently for a number of reasons. One is that they are simply following the practices that have previously been put in place. But these outdated modes need to be replaced with current business practices. These include being efficient, effective, transparent, and accountable – in other words, being good stewards of public resources. Among the necessary practices will be establishing visible goals (perhaps with the use of an online dashboard), measuring and analyzing the progress in meeting them, and striving for continuous improvement using a thorough analysis of the lessons learned in the process. Such practices are now common in the private sector. Health departments would do well to study and learn from the best of such models.

A second reason for the inefficiency of public health departments is the size and structure of some departments. Some are too small to capture the efficiencies that come with scale or to have the degree of specialization that is needed. So a key task of the chief health strategist will be to examine if such limitations can be overcome by sharing agreements across jurisdictions. This may necessitate and lead to formal affiliations and even mergers of health departments.

Health departments will need to make the business case for public health activities – that is, using health economics to highlight examples when public health interventions save money in the short, as well as the long, term. It will no longer be sufficient to simply claim that prevention saves money without the economic analysis to demonstrate that this is the case for

each specific activity. Such analyses will also be needed to demonstrate that health departments are wisely using their own resources and translating them into positive health and economic outcomes. One way to prove that they are will be to achieve accreditation from PHAB.

The health department as chief health strategist in 2020 will diversify the funding base for public health. In addition to relying on local, state, and federal grant funding, health departments will establish mechanisms to bill insurers and providers whenever possible. However, newly identified funding might or might not come to the health department itself, depending on an assessment by the department of where the funding can be of most use. Part of the role of the chief health strategist will be assuring that resources are directed to others. For example, departments of the future will collaborate with non-health related government agencies to encourage that they direct their own resources towards practices which will directly improve community conditions.

Accomplishing this expected practice is a tall order for any health department. To acquire this and the other goals for skills and practices mentioned previously, health departments need to help create and become part of a learning health system in which science, informatics, incentives, and culture are aligned for continuous improvement and innovation, with best practices seamlessly embedded in the delivery of public health, and community health overall, and new knowledge captured as an integral by-product of the ongoing experience of becoming chief health strategists.

Health departments as chief health strategists also need guidance, support, and encouragement from what for many is their largest funder and most important technical assistance and policy partner… the federal government. The next section explores why the federal public health system is so important for the health departments of the future.

PRACTICE #7: Work with corresponding federal partners – ideally, a federal Chief Health Strategist - to effectively meet the needs of their communities.

Chief health strategists require the support (financial and policy) and architecture of the federal government. Without this support – and, moreover, leadership – from the federal government, it will be difficult for local and state health departments to adequately prepare for 2020 and become chief health strategists. Locals and states can and must be their own agents of change to become the health departments of the future.

But the necessary transformation is not something they can make entirely on their own. Certainly, they need financial support from the U.S. Department of Health and Human Services. The federal government, as a major (sometimes THE major) funder of state and local public

health, sets the tone and drives the structure and function of public health at the state and local level.

In order for local and state health departments to function cohesively, they need greater flexibility in funding than federal agencies currently provide coupled with the skills and tools to take advantage of that flexibility. Grant awards with narrowly segmented focuses – a short-term work plan for asthma, a separate one for tobacco, a third one for diabetes – lead to organizational silos and more limited external partnerships. If locals are to bring together all who can affect health, then federal health agencies need to make it easier to braid federal funding, and the federal health and non-health agencies need to design their programs to permit closer coordination of funding.

Such flexibility will encourage health departments to address community, workplace, and school conditions in ways that have a positive impact on many health problems. Prevention-related activities that encourage healthy eating and active living decrease a number of many health risks, including diabetes and heart disease. Efforts have been underway at the Centers for Disease Control and Prevention (CDC) to provide more coordinated funding in such areas as HIV and other sexually transmitted diseases and has piloted integrated chronic disease grants. Such approaches enhance the likelihood of improving health outcomes.

An additional example that will be of growing relevance to the health department of the future is the potential to use funding for what might be referred to as foundational public health services such as the needed steps to update Health Information Technology, develop broad-based partnerships, and collaborate with clinical systems.

To be clear, flexibility in the use of funding should not be confused with the lack of accountability. But the chief health strategist will be hampered in accomplishing specific necessary (and measurable) tasks if the funding continues to be awarded in an overly restrictive manner.

But the federal government's role in fostering change at the state and local level is not simply about funding. Transformation also requires a change in the way the federal agencies interact with the local and state officials. To begin with, a unified set of policies and practices, including but not limited to funding, would provide a consistent system within which to function.

One obvious challenge to such cohesive structure is that the current federal health enterprise is not a single "health department" with a unified set of policies and practices. Rather, it is a diffuse set of agencies charged with different aspects of health services that drive state and local public health activities through different funding streams and associated requirements, regulatory authorities, and legislative efforts.

The federal system needs to establish and embrace a goal and a plan to function as a "virtual" federal health department and be a chief health strategist at the national level. Federal inter-agency coordination that gives consistent and unified guidance, resources, and training to support local and state changes is invaluable. In fact, without such support, the necessary changes mentioned in each section of this report are more difficult to achieve. It may be too ambitious to propose that within the next six years (our 2020 time frame) there should be a federal equivalent to the chief health strategist at the local or state level. But, the closer the federal health system can come to operate with a single voice, uniform procedures, and a common set of priorities, the better.

There is opportunity and evidence that federal leaders recognize the changes needed for the future. The National Prevention Strategy paints an ambitious picture of what public health and prevention efforts need to be. And that picture looks startlingly and encouragingly familiar to a number of the themes identified above. For instance, it strongly reinforces Theme #4 regarding the importance of seeking broad-based meaningful partnerships, as indicated by its language that "*Aligning and coordinating prevention efforts across a wide range of partners is central to the success of the National Prevention Strategy. Engaging partners across disciplines, sectors, and institutions can change the way communities conceptualize and solve problems, enhance implementation of innovative strategies, and improve individual and community well-being.*"[2] A consistent message throughout the National Prevention Strategy is the importance of bringing all societal and governmental resources together to address the determinants of health and their direct health consequences.

The same observation applies to the six practices discussed above. For example, if locals and states are to harness health information technology and mine new data sources, they can't be sidetracked by outdated national approaches to surveillance and other data collection. Or by conflicting reporting requirements that narrowly define what are the acceptable data for each federal agency and/or program. This means that the same vision of innovation and diversification in data sources needed at the local and state levels must occur at the federal level. Dozens of federal data collection efforts, surveys and registries need to be modernized. Cross-agency conferences and webinars should be held to identify promising practices. Partnerships with those managing useful big data sites should be brokered at the national level in ways that ease access to the data at the state and local levels. National and regional training for state and local health information technology staff should be frequent. And all federal agencies that fund public health should commit to abide by the outcome of such efforts, so that local and state health departments are not required to maintain the current, inefficient patchwork quilt of agency-specific data sources.

Similarly, if locals are going to succeed in bringing the community and clinical world together, then the federal government needs to incentivize both public health *and* the clinical world to

work together. Promising steps in that direction are beginning with the growing collaboration of CDC and the Center for Medicare and Medicaid Innovation, and the inter-agency support for Million Hearts and ABCS campaigns. But the funding, training, and prioritization of such efforts is limited.

One final point mentioned earlier but worth reiterating is the magnitude of the challenges faced by the health department of the future. It is unrealistic that a small and under-resourced department can achieve these. Therefore, an additional role for federal agencies might be to create incentives for health departments to consider municipal partnerships across local and state lines. Just as the ACA opens up whole new vistas for chief health strategists to collaborate across previously separated public-private lines, state and federal agencies should look to break down bureaucratic barriers.

In summary, the previous sections have called for the rethinking of the role of new local and state chief health strategists, suggesting a sweeping set of responsibilities that should be adapted to meet the actual conditions of the future. This final practice suggests not only that the state and local health departments as chief health strategists form a more effective partnership with the federal government agencies, but also necessitates that the federal government modify and adapt as well, as a virtual federal chief health strategist with the whole nation as its community, both to meet the new health needs and conditions, and to optimize, through unified goals, policies, and funding, the likelihood that local and state health departments will be modernized and well prepared. A few obvious starting points for such a federal health transformation would include the translation of the National Prevention Strategy into the terms and practices by which federal government and health agencies actually do business, and the creation of new, more unified working relationships across the federal departments and sectors.

Action Steps and Conclusion

It is not that long between now and 2020. Even as health departments persevere under the stressful conditions of several years of budget cuts and the simultaneous increase in the number of issues they must address, they must evolve. For some health departments, their limited size and relatively narrow scope of activities may potentially require combining resources with others in their state or region. It may simply be unrealistic for health departments below a certain size to become the chief health strategist and manage the necessary division of labor and flexibility to adapt to the new circumstances.

However, some health departments are already embracing the new opportunities outlined in this paper – whether through strategic planning, preparing for the Public Health Accreditation Board process, and considering the departmental changes they must make. They will recognize in our concept of a chief health strategist the new roles they have begun to assume.

These seven proposed practices are a tall order and require action that starts today if it is not already underway. Given the urgency of this need, we offer the following menu of suggested action steps, which are designed to stimulate discussion, idea development and additional to-dos. Some of the suggestions are intended to be scalable to the circumstances faced by any department. They emphasize processes that can be undertaken to assess new and future conditions, compare current practices to future needs, begin to explore new data sources, start one or more new partnerships, mobilize leadership at the community level, and strengthen management systems. Health departments can undertake necessary exploratory work – even without new resources. As more and more health departments engage in these efforts, there will be success stories and lessons from which all can learn.

Appendix A: Becoming the High Achieving Public Health Department as the Chief Health Strategist by 2020 and Beyond

1. *The first practice mentioned above involved understanding and addressing the primary causes of illness, injury, and premature death, while the second practice highlights the needs related to emerging demographic patterns, and the health inequities experienced by specific sub-populations*.

   To achieve both objectives of a health department as a chief health strategist of any size could begin with a planning process both internally and in partnership with others to determine the likely needs of 2020 and consider how best to meet them. Some of the steps could include:

   a. Collecting the most comprehensive available data on health and demographics including that prepared by area hospitals to meet the new IRS regulations;
   b. Assessing data for increasing prevalence of illness and injury and for changing demographics in the coming decade. Focus on the major causes of illness, injury and premature death; what's changing and what's problematic now and unaddressed.
   c. Convening an advisory group with external members to review data and determine if there are likely future trends and needs of the most prevalent current and future conditions not captured by the data; consider open public meetings to solicit additional input.
   d. Reviewing internal distribution of staff and resources relative to the issues of growing concern; assess ability to redistribute existing resources to better reflect these issues.
   e. Discussing possible steps to address the future needs with the advisory group; prepare materials highlighting the dilemma

2. *Assess the diagnoses, trends, and underlying causes of the leading illnesses, injuries, and premature deaths within a municipality and analyze their significance in relation to the current distribution of public health funding*.

3. *Assess the demographic trends for the municipality as well as the populations with the greatest health disparities, and analyze their significance in relation to the current distribution of public health funding for the area*.

4. *Examine existing and emerging databases in the area that can offer information relevant to the health department's planning, programs, and policies. Select one or two promising databases such as open-source, social media, or big data systems and invest in exploring what it would take to gain access to and analyze the data they hold. Learn to analyze aggregated information to better understand the health determinants in your area.*

5. *Convene meetings of clinical providers and insurers to discuss potential linkages between population health and clinical care. Develop at least one pilot program to strengthen these connections.*

6. *Collaborate with new non-health-sector partners such as police officers and educators who have the potential to make an impact on the living conditions of some of the more vulnerable segments of the community*.

7. *Invent or adapt job descriptions for positions likely to be needed in the future. These include: information technology, with expertise in big data systems, social media, and analyzing claims data from insurers; building coalitions and organizing communities; building bridges with other sectors including health care providers, non-health governmental agencies, large employers, and community-based organizations.*

8. *Initiate an effort to strengthen internal management systems in ways that create transparent goals, and establish ways to measure progress in achieving them.*

Appendix B–Working Group Members

John Auerbach
Institute on Urban Health Research and Practice, Northeastern University

David Fleming
Seattle King County Public Health

Thomas Goetz
Robert Wood Johnson Foundation

Katherine Hayes
Bipartisan Policy Center

Paul Kuehnert
Robert Wood Johnson Foundation

Jeff Levi
Trust for America's Health

Herminia Palacio
Robert Wood Johnson Foundation

Karen Remley
Eastern Virginia Medical School

Josh Sharfstein
Maryland Department of Health and Mental Hygiene

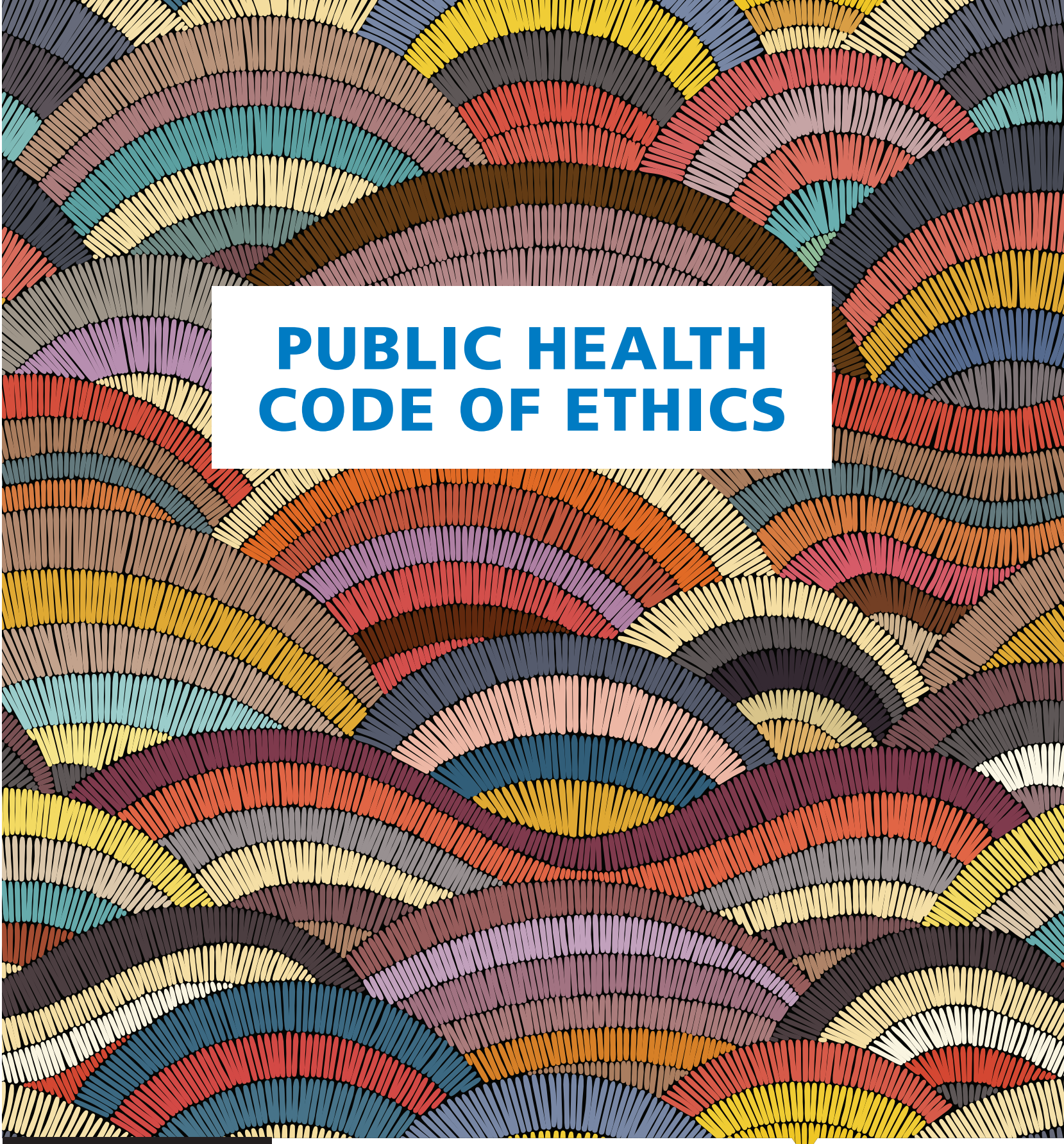
Lisa Simpson
Academy Health

RESOLVE Staff
Abby Dilley
Chrissie Juliano
Sherry Kaiman
Rachel Nelson

End Notes

[1] http://www.surgeongeneral.gov/initiatives/prevention/strategy/
[2] *Ibid.*

APPENDIX C



PUBLIC HEALTH CODE OF ETHICS

ISSUE BRIEF

APHA

AMERICAN PUBLIC HEALTH ASSOCIATION

For science. For action. For health.

TABLE OF CONTENTS

SECTION 1. INTRODUCTION

The *Public Health Code of Ethics* is a set of professional standards and expectations intended for public health practitioners[1] throughout the field. In 2002, a code entitled *Principles of the Ethical Practice of Public Health* was developed by a team of public health practitioners engaged in a project with the Public Health Leadership Society. The American Public Health Association adopted the principles, and they were published in the *American Journal of Public Health*[2]. At that time, it was already recognized that the field of public health was experiencing dynamic growth and that the code would best serve the field if it were occasionally reexamined and possibly revised. Now, as the field of public health enters the era of Public Health 3.0, in which public health practitioners and programs prioritize social determinants for health and interact with a growing diversity of partners, it is important to reexamine and reemphasize public health's commitments to ethical practice and public service.

Public health practitioners work in a variety of settings, including but not limited to local, state, and national governmental public health departments; domestic and international nongovernmental organizations (NGOs); and academia. Practitioners within each setting come from a variety of disciplines and represent numerous scientific and technical areas of study. The values and standards of public health apply to practitioners in these and other public health settings and disciplines.

In a practical and multidisciplinary activity as complex as public health, acting ethically and fulfilling ethical obligations requires careful reflection and intentional decision making. Public health is an evidence-informed practice. Public health actions are based on scientific observation and inference, lived experience, and what is valued by public health practitioners. Public health decisions affect the health and well-being of diverse individuals, groups, and communities.

This 2019 version of the *Public Health Code of Ethics* contains ethical standards and obligations for both public health practitioners and institutions, and it is intended to guide individual and collective decision making, especially in ethically challenging situations. Section 2 outlines the "what" of public health ethics; it lists and defines the shared foundational values of public health. These values form the high-level moral justification for public health work. Section 3 provides guidance for the "how" of public health ethics; it provides a set of considerations for use in a deliberative decision-making process that allows public health practitioners to ensure that authority and power in public health are exercised in fair and productive ways. Section 4 provides ethical guidance for actions and implementation strategies in 12 domains of public health practice, as identified by the Public Health Accreditation Board (PHAB)[3]. These domains do not exhaust the full range of the field of public health, but they do provide a well-recognized and useful map within which to organize the important action guides offered in this code. Those practicing public health who do not locate their own activities on this map may nonetheless be able to develop similar action guides that are germane to their own field of operation.

Addressing complex ethics questions requires public health personnel to have a set of skills that include the ability to:

- Identify the ethical dimensions of public health work,
- Articulate conflicting values and ethical dilemmas when they arise,

- Deliberate on options and courses of action using inclusive methods that engage individuals and groups affected by public health work, and
- Implement and evaluate solutions to keep the process open for revision, especially in situations where information is limited or developing quickly.

How can social justice and the ideals and standards of normative ethics be integrated within the structure of professional activity? Historically, part of the answer to this question has been provided by formal, written codes of professional ethics. Yet, assessments differ concerning the purposes served by professional codes of ethics. Some critics regard professions as nothing more than ways of making a living, or pathways to prestige and power. Accordingly, these critics tend to regard ethics codes as self-serving statements that protect the power and status of the profession and its members more than they protect the public interest.

However, even though codes have been used in professionally self-serving ways, they have also provided standards that critics and reformers have used to render professionals more accountable and trustworthy. It is important not to lose sight of the impartial ethical validity of the norms that codes can contain.

This code is premised on the belief that professions are not merely special interest groups *within* society but are charged and entrusted—more stringently than other occupations—with service *to* society. As such, professions must be dedicated and accountable to the people they serve. A code is not the only lens that society uses to evaluate the performance of its professions, but it is a visible statement of the collective conscience of a profession, and it is one benchmark against which specific professional practices can be measured.

If, for the entire profession, a code is like a promise to society, for an individual professional a code is part of a special commitment and a second identity. As human beings in families and societies, all people have ethical standards, rights, obligations, and a personal moral conscience. When people become professionals, they take on a second set of special responsibilities and obligations concerning how and for what ends their professional knowledge and authority should be used. At times, the special obligations of one's professional identity can come into conflict with one's personal interests and even obligations. Fulfilling the special ethical obligations of a professional is not easy. When health care professionals report for duty during a public health emergency, for example, they must leave their home and family, perhaps during a frightening and difficult time. Public health and safety professionals are expected to take risks and to put themselves in harm's way as a professional ethical obligation. Also, they are expected to put the public interest and the public trust ahead of their personal interests and to never misuse their office or authority for personal gain. Codes are documents in which such special professional obligations are pledged and explained.

When reflecting on ethics, many first think of regulation, supervision, and formal enforcement. This code is not a disciplinary or regulatory document; its importance derives from values and standards widely shared in the public health profession and from the force of reasoned argument. It is meant to address the field of public health, and it is not intended to be used to discipline and sanction professional misconduct. It offers a discussion of ethics that is sensitive to the varied nature of public health work and the contexts in which it takes place. It provides an ethical framework to guide both individuals and organizations engaged in the pursuit of the health of the public. Regulation, supervision, and formal enforcement play their part in ensuring that professional conduct meets high ethical standards, but these matters should be addressed by duly authorized agencies and organizations.

Identifying and cultivating ethical best practices is a reflective and dynamic endeavor. This code does not rest exclusively on any single theoretical approach to ethics such as rights-based approaches or utilitarian orientations. Instead, the theoretical stances informing this code are pluralistic: it describes foundational values that inform and animate public health across various ethical schools of thought, shows how these multiple values complement and conflict with one another, and examines the practical implications these values hold for policy and the beneficial use of public health expertise and authority today.

Public health is a multidisciplinary profession including numerous specialized bodies of knowledge and practical experience useful in service to society. As previously stated, the *Public Health Code of Ethics* takes its guiding orientation from the focal point of that service. While many discussions take the goal of this service to be individual and population "health," this code uses the notion of "flourishing" or well-being, which has a broader, more inclusive connotation. With the appropriate support, many live flourishing lives with impairments or illness. As used here, flourishing does not focus so much on biological function as on the social conditions of capability and opportunity upon which health itself and many other goods depend.

Flourishing refers to what individuals and communities experience when institutional and cultural structures create the opportunity for people to realize a wide range of potential capabilities inherent in all human beings. Flourishing occurs when capabilities for agency, creativity, intelligence, understanding, emotional engagement, and other positive human potentialities take shape in the form of lives well lived. As such, we take a life course perspective that examines public health issues from maternal and child health into old age while recognizing specific vulnerabilities at the extremes of age. The term human flourishing also underscores the relational interdependence among human beings, which is expressed in virtually all social and cultural activity and fits well with the contemporary understanding of the social determinants of health. The preconditions of everyone's health are communal and systemic, and the field of public health must address them as such. Human flourishing is thus consonant with a social-relational, rather than an exclusively individualistic, interpretation of key values such as human rights, liberty, equality, and social and environmental justice that play a vital role in contemporary public health.

The opposite of human flourishing is not only disease or ill health but also domination, inequity, discrimination, exploitation, exclusion, suffering, and despair: in a word, the stultification and denial of optimal human self-realization and thriving human communities.

We return once more to the fundamental question of how the ideals and standards of ethics can be integrated within the structure of professional activity in public health. If a rigorous and comprehensive code of ethics helps achieve this goal, the promulgation of written codes of ethics alone is not enough to ensure ethical professionalism in practice. More direct systemic, institutional, cultural, and psychological influences shape the ethical conduct of public health practitioners. These factors must be addressed head on and met with strategic efforts at organizational change and professional capacity building in public health. Updating and adopting the *Public Health Code of Ethics* is only the first step.

Therefore, it is important for professions to follow up and supplement the adoption of a code with other ongoing activities and with additional tools and resources for the training and development of sound ethical decision making in the field. Debate and discussion of the provisions of an ethics code can prompt and set in motion a

healthy process of institutional self-reflection and sensitization.

Empirical and philosophical research in public health ethics has increased significantly in recent years and has become an important area of scholarship. It will continue to examine specific areas of public health policy and practice, and ways should be found to bring the findings of such research to the attention of public health practitioners.

Periodic workshops and community meetings—among public professionals on the staff of agencies or NGOs and between public health practitioners and the communities they serve—can provide an opportunity to analyze what should be done in real-world case studies and scenarios.

Discussion forums such as these, together with other uses of social media, webinars, and training programs, can play a meaningful part in promoting and sustaining a humane and respectful ethos of moral respect and care in public health. Ongoing professional development and ethics competency building in public health can help the field learn from past crises, take steps to avoid repeating past mistakes, and address the structural and cultural factors that result in the conduct of the field falling short of its own ideals and those of the broader society.

SECTION 2. PUBLIC HEALTH CORE VALUES AND RELATED OBLIGATIONS

> **The following core ethical values are equally important and are not presented in rank order. These values are multifaceted conceptually and can be realized in practice in different ways. They do not have simple definitions. They require ongoing and explicit reflection and reaffirmation.**

A. Professionalism and Trust. The effectiveness of public health policies, practices, and actions depends upon public trust gained through decisions based on the highest ethical, scientific, and professional standards. Public health gains public trust in part because its practices are informed by evidence. When the needed evidence is lacking, public health seeks it, and when the evidence reveals faulty or inadequate practices, public health seeks to improve those practices. At times public health practitioners must respond to a situation in the absence of complete scientific information, which highlights the importance of having an ethical framework to drive decision making. Public health practitioners and organizations promote competence, honesty, and accuracy and ensure that their work is not unduly influenced by secondary interests. Public health decision makers need to be transparent and honest about disclosing conflicting interests and influences.

B. Health and Safety. Health and safety are essential conditions for human flourishing. Public health practitioners and organizations have an ethical responsibility to prevent, minimize, and mitigate health harms and to promote and protect public safety, health, and well-being.

C. Health Justice and Equity. Human flourishing requires the resources and social conditions necessary to secure equal opportunities for the realization of health and other capabilities by individuals and communities. Public health practitioners and organizations have an ethical obligation to use their knowledge, skills, experience, and influence to promote equitable distribution of burdens, benefits, and opportunities for health, regardless of an individual's or a group's relative position in social hierarchies. Health justice and equity also extend to ensuring that public health activities do not exacerbate health inequities. In addition, health justice does not pertain only to the distribution of scarce resources in transactions among individuals; it also involves remediation of structural and institutional forms of domination that arise from inequalities related to voice, power, and wealth. It is difficult for public health to promote health justice at the transactional level if it does not take steps to promote it at the structural and institutional levels as well.

D. Interdependence and Solidarity. The health of every individual is linked to the health of every other individual within the human community, to other living creatures, and to the integrity and functioning of environmental ecosystems. Public health practitioners and organizations have an ethical obligation to foster positive—and mitigate negative—relationships among individuals, societies, and environments in ways that protect and promote the flourishing of humans, communities, nonhuman animals, and the ecologies in which they live. Attention to potential intergenerational conflicts over resources can sometimes be essential.

E. Human Rights and Civil Liberties. While coercive legal measures limiting behavior can be ethically justified in certain circumstances, overall the effective and ethical practice of public health depends upon social

and cultural conditions of respect for personal autonomy, self-determination, privacy, and the absence of domination in its many interpersonal and institutional forms. Contemporary public health respects and helps sustain those social and cultural conditions.

F. **Inclusivity and Engagement.** Preventing adverse health outcomes and protecting and promoting the flourishing of individuals, societies, and ecosystems require informed public decision-making processes that engage affected individuals and communities. Public health practitioners and organizations have an ethical responsibility to be transparent, to be accountable to the public at large, and to include and engage diverse publics, communities, or stakeholders in their decision making.

SECTION 3. GUIDANCE FOR ETHICAL ANALYSIS

Ethical analysis can help public health practitioners and organizations assess what they should do and why. Grounding action in the core values presented above provides public health with a publicly defensible approach. In addition, sometimes values and ethical obligations conflict, resulting in the need to find common ground and seek integrity-sustaining compromise. Resolving ethical tensions does not mean finding the right answer; rather, it means searching for a morally appropriate way forward, all things considered.

As an integral part of the exercise of professional deliberation and judgment concerning proposed public health actions, skill in ethical analysis and reasoning is an important competency for public health practitioners and decision makers. Ethical analysis of proposed or contemplated public health actions involves four important components:

- Determination of the public health goals of the proposed action
- Identification of the ethically relevant facts and uncertainties
- Analysis of the meaning and implications of the action for the health and rights of affected individuals and communities
- Analysis of how the proposed action fits with core public health values

Such an analysis involves assessing the best available factual evidence, understanding the lived experience of affected stakeholders, and thinking explicitly through how the moral justification for the proposed public health action or program can best be publicly justified and explained. Finally, ethical analysis also includes steps to set up procedural arrangements that respect the interests and values of affected stakeholders and provides for direct or indirect participation of those stakeholders in the decision-making process.

Ethical goals and values are often at stake in a public health action or decision, and it is not always clear how they should be ranked or how conflicts between different goals and values should be resolved. Through serious discussion of the following considerations in a deliberative decision-making process, public health practitioners can strive to ensure that authority and power in public health will not be exercised in ways that are arbitrary, discriminatory, or otherwise abusive of the public trust. Below are eight considerations that should arise in virtually any setting where public health interventions and policies are planned and significant decisions concerning such interventions and policies are made. If these issues are not considered, whatever the ultimate decision, it would be difficult to say that the decision had been given sufficient ethical scrutiny.

- **Permissibility:** *"Would the action being considered be ethically wrong even if it were to have a good outcome?"* Ethics seeks to define and distinguish conduct that is morally permitted from conduct that is morally prohibited. An action is often judged to be morally acceptable based on two factors: the extrinsic consequences of the action and the inherent nature or meaning of the action. Sometimes motivation and intention are factored in as well. Evaluating the consequences of a proposed action or decision alone is always ethically pertinent, but it is not ordinarily ethically sufficient. To identify actions that are ethically suspect, public health practitioners must consider the social and cultural context of the proposed action. A given action might have permissible consequences—such as gaining new knowledge that can be used beneficially in the future—but nonetheless be a type of action that is prohibited because of social, cultural, and historical experience and consensus. One clear example of an impermissible action is torture; another is discrimination based on race,

gender, ethnicity, or functional impairment. Such actions violate values that today are recognized as central to the mission of public health.

Public health decision making and practice will normally function within the zone of ethically permissible actions, but even within that zone difficult and important value trade-offs must be made. For example, limiting the spread of sexually transmitted diseases requires a trade-off between privacy rights of individuals and use of methods, such as contact tracing, that have been effective in limiting the spread of disease in a population.

Finally, a discussion of the criterion of permissibility in moral reasoning would be incomplete without brief mention of a complex topic: the relationship between ethics and the law. Ethical public health practice must be set within the parameters of the law at any given time and within established procedures for changing the law over time. An ethical professional should strive to work within the law to serve the needs, rights, and well-being of individuals and society at large. In addition, individual professionals and organizations can ethically strive to change the law through the democratic and judicial process. (It should be noted that some public health practitioners might be restricted in their exercise of democratic citizenship by conditions of their employment in the government or nonprofit sector.)

- **Respect:** *"Would the proposed action be demeaning or disrespectful to individuals and communities even if it benefited their health?"* Respect supports human dignity within transactions, exchanges, and relationships. These considerations remain relevant even when—indeed, especially when—there is a significant disparity in need or resources among the parties involved. Respect also reminds us of the important values of justice and equity, as well as interdependence and solidarity. It is particularly important to safeguard the dignity of those who, by virtue of young age or cognitive disability, may not be able to fully participate in democratic deliberation or give consent or even assent.

- **Reciprocity:** *"Have we done what is reasonable to offset the potential harms and losses that the proposed action imposes on individuals and communities?"* The ethical ideal of reciprocity attests to the notion that social life should reflect mutual exchanges and cooperation rather than unilateral imposition. Reciprocity obligates us to relieve, as much as is reasonable, the burdens of adhering to public health policy. When a public authority requires individuals and communities to contribute to or participate in an important communal undertaking, it is incumbent on that authority to provide the means necessary to ensure that such contributions are not unduly or unreasonably burdensome. For example, if public health practitioners are sent to the location of a public health emergency, they must be provided with proper training and appropriate equipment. Similarly, if public health subjects individuals to compulsory quarantine or social distancing measures, it is the ethical responsibility of public health and other officials and agencies to provide appropriate medical assistance, housing conditions, nutrition, access to outside communication, and other human rights protections throughout the course of their isolation.

- **Effectiveness:** *"Is it reasonable to expect, based on best available evidence and past experience, that the proposed action would achieve its stated health goals?"* Once the planned goals of a proposed public health action are determined to be morally permissible, it is then necessary to assess how well those permissible goals will be met. Given the best information presently available, a proposed public health action or decision should be able to achieve its intended public health goal. Action for its own sake without a reasonable likelihood of

effective success is not ethically justified. For example, in an epidemic situation, especially one involving an unfamiliar pathogen or a grave infectious disease, measures involving quarantine or restriction on travel or assembly might be considered for political reasons, even when the evidence of their effectiveness in containing the epidemic is weak. Since substantial human, environmental, and economic costs—intended or unintended, current or long term—are associated with such measures, lack of evidence for their effectiveness would provide one ethical argument against their use.

- **Responsible Use of Scarce Resources:** *"Would the proposed action demonstrate good stewardship and deserve the trust that the public has invested in public health practitioners?"* Virtually every public health action, particularly those for which difficult ethical judgments must be made, involves the use of scarce resources such as human skill, talent, and time; medical equipment and supplies or other infrastructure; natural resources; and funds that could be directed to other activities. Even if permissible and effective on its own terms, ethical decision making requires consideration of whether a given action merits expenditure of resources in relation to other needs or health goals that require attention now or in the foreseeable future. For example, a possible future health emergency can be less devastating if large quantities of medical supplies or equipment—such as antivirals or ventilators—are stockpiled in reserve. But those stockpiled resources could go unused for a long period and even expire, while other ongoing public health programs and services are underfunded.

- **Proportionality:** *"Would the proposed action demonstrate that public health practitioners are using their power and authority judiciously and with humility?"* Virtually every public health action has both benefits and costs, particularly those for which difficult ethical judgments must be made. Proportionality involves assessments of the relative effects, positive and negative, of an action or a decision. A proportionate action would be one in which the means used to attain a public health goal are reasonable in light of the benefits they bring and the costs they impose, provided that those benefits and costs are distributed equitably and in a fair and nondiscriminatory way. Conversely, a disproportionate action would be one that involves a very small chance of significant benefit to a few and the cost of widespread deprivation or harm to many. For example, it has been argued that public health and safety goals can at times justifiably override other values, such as personal liberty, but that public health actions should nonetheless adopt the least restrictive alternative that will meet the public health goal. It should also be noted that the notion of proportionality can be thought of temporally as well as spatially: the prospect of disproportionate risk of harm can apply to both current and future generations. These judgments are perhaps more complex in the case of impact on future persons, but that is no reason to ignore their ethical significance.

- **Accountability and Transparency:** *"Would the proposed action withstand close ethical scrutiny and be justified by valid reasons that the general public will understand*?" Public health practice relies on the support and voluntary cooperation of individuals and communities, both of which require trust. Trust is built on ongoing transparency and accountability. This can involve explaining actions and motives even when no critical questions are being asked. By giving an account of the reasoning and evidence behind a program, public health practitioners demonstrate respect for affected communities and stakeholders. This also helps members of the public understand the difficulty and seriousness of purpose involved in public health decision making, even if they disagree with the specific decision or outcome in question. Real-time transparency, especially in

crisis or emergency situations, might not always be feasible or desirable; protecting individual privacy and avoiding public panic might be overriding considerations. But retrospective transparency of evidence and ethical reasoning is almost always a good ethical practice. It is the hallmark of learning organizations and reflective professional practice.

- **Public Participation:** *"In deciding on a proposed action, have all potentially affected stakeholders had a meaningful opportunity to participate. If some are to be deliberately excluded from decision making, is there an ethical justification for doing so?"* Public participation has many meanings and names: for example, public engagement, collaborative decision making, public involvement, community engagement, participatory research, and democratic deliberation. Public participation refers to the meaningful involvement of members of the public in public health research, decision making, planning, policy, and practice. Public participation should ensure that participants and decision makers alike are mutually informed and engaged in dialogue and exchange. This requires more than one-way communication to the public (e.g., public services announcements, social media campaigns, or marketing). Decisions that affect the trust of minority and marginalized communities, or that are highly sensitive and divisive, require concerted efforts to involve affected stakeholders. Public participation can enhance the legitimacy, transparency, and justice of decision making and build trust in public institutions.

  There are many different forms and methods of public deliberation. All share a commitment to the use of balanced, nonpartisan evidence and information to ensure that deliberations are well informed. They provide participants with time for discussion, reflection, and co-learning to promote dialogue that identifies the ethical, psychological, social, cultural, and economic impacts and difficult trade-offs of decisions. Public deliberations are also oriented toward finding collective solutions and providing direct feedback to decision makers. Empirical studies and anecdotal evidence show that when it is done well, public deliberation can yield more informed, considered, civic-minded, egalitarian discussions and mutually supported decisions. Appropriate attention needs to be given to citizens who cannot, by reason of young age or cognitive disability, fully participate in public discourse.

SECTION 4. ETHICAL ACTION GUIDANCE FOR POLICY AND PRACTICE IN FUNCTIONAL DOMAINS OF PUBLIC HEALTH

Previous sections of the code have identified core values that provide an ethical mission and identity for the profession and practice of public health (Section 2) and have outlined key considerations that should be contemplated carefully as public health practitioners analyze proposed policies and practices from an ethical point of view (Section 3). Taken together, these core values and components of diligent and deliberative ethical decision making form the foundation for more specific ethical guidance concerning public health functions and activities.

The purpose of Section 4 is to highlight ethical issues that arise in distinct functional domains of public health's service to society and to provide guidance on how those issues should be understood and addressed. Here scientific research, expertise, legal and social authority, public trust, and ethical responsibility meet in the everyday work—the debates, deliberations, and decisions—of public health organizations and practitioners.

Ethical Action Guidance

What does ethical "guidance" mean in the context of Section 4? The action guidance recommendations described below are meant to inform and enlighten the judgment necessarily exercised by public health organizations and practitioners, not to eliminate the need for such judgment or to curtail reasonable and responsible discretion. They are not ethical "rules" that must be followed no matter what. Public health decision makers should presume that these recommendations should be followed, but the facts and circumstances within which a given decision must be made may, from time to time, rebut this presumption. In other words, the recommendations are best understood as ethical starting points, default settings that can legitimately be overridden by specific conditions and factors that impinge on particular policies and decisions. This definition and interpretation of ethical action recommendations is generally in keeping with the use of the term "guidance" familiar in the field of public health and applicable to many kinds of considerations, not only to ethics.

Specific ethics guidance in a field as functionally diverse as public health could be organized in many ways. This code has adopted a classification of public health functional areas or "domains" as a clear and recognizable framework for presenting the guidance in this section. While a number of descriptions of key public health functions have been proposed, we use the familiar and well-validated set of functions described by the Public Health Accreditation Board (PHAB). In developing these functional domains, PHAB promulgated accreditation standards for local and state governmental public health entities and set detailed standards within those domains that could be used to assess and evaluate the entities' performance over time. A parallel classification of functional areas is also useful for organizing ethics action and decision-making guidance, although, as previously noted, this guidance does not set enforceable standards in the manner of accreditation. Note that in at least one instance (Domain 7), we have altered a domain's name to facilitate analysis of the specific ethical aspects of that particular domain. The functional domains listed in this section are meant to encompass a wide range of public health activities in whatever context they occur, including within government agencies, academia, NGOs, and other community-based organizations.

ACTION GUIDANCE RECOMMENDATIONS

Domain 1: Conduct and disseminate assessments focused on population health status and public health issues facing the community

Public health practitioners and organizations should strive to conduct and disseminate meaningful health assessments focused on population health status and public health issues facing the community. Health assessments, which can exist at the state, tribal, local, or territorial level, generally seek to identify key health needs and issues through systematic, comprehensive data collection and analysis. Community health assessments can be used to guide a strategic planning process, prioritize the development or delivery of services, and assist local communities with activity development. Doing so helps to identify existing community assets (e.g., organizations, partnerships, funding, facilities) and/or deficits (e.g., lack of funding, lack of services, community violence) to promote the health of the community and minimize harms. Findings from health assessments should be disseminated in an ethically responsible manner informed by key stakeholders and community members through an established process.

Ethical policies and practices used to conduct and disseminate assessments of public health status and public health issues facing communities should:

4.1.1. Promote cross-disciplinary collaboration to define community problems and identify causal factors or social determinants of health. Understanding complex and persistent health problems and their determinants is strengthened through multiple nuanced perspectives and disciplinary lenses, always attending to cultural differences among participants with sensitivity and openness. Cross-disciplinary collaboration allows individuals with diverse training and experiences to come together to address a common goal. Thus, it is important to understand and recognize the experience and knowledge that each individual brings to the table. Furthermore, such collaboration provides the opportunity to build alliances and partnerships across professions and with communities as a means of developing well-informed, tailored strategies to improve the health of the community.

4.1.2. Engage, empower, and train community members to conduct and disseminate health assessments. Community members' knowledge and skills are often underutilized. Engaging, empowering, and training community members is important. Doing so builds community capacity and sustainability to improve health outcomes in the long term. Community residents and organizations can help identify, mobilize, and address the strengths and deficits that exist within their communities. This assists them in being more effective partners with public health in health planning and priority setting. Cultural humility and competence are both key in these efforts.

4.1.3. Balance perceived needs with expressed and expert-defined needs to improve community health. There often exists a tension related to balancing the needs and interests perceived by the community with the needs and interests that may be inferred from analyses of data on health care utilization behaviors and with needs and interests perceived by experts and health professionals. It is critical to use multiple forms of data collection and innovative technology and methods to capture the various types of needs germane to the population of interest. In balancing such needs, it must be taken into account that understanding and addressing the health of the community is complex and requires

a multifaceted approach to assessment with due consideration to the valued role and voice of the affected community in the process. Humility about the limits of expertise is critical. Interpretation of community needs and interests by health professionals should not be given automatic precedence over conflicting points of view. Public health must remain in dialogue with the communities it serves.

4.1.4. Prioritize health problems and disseminate relevant findings. Once community health problems have been identified by key stakeholders through a health assessment, health priorities should be established using various techniques as part of an ongoing process informed by key stakeholders, including community members. Selected priorities should be diffused through agreed-upon dissemination channels and carefully dispersed in a manner that empowers, rather than marginalizes and stigmatizes, the population of interest.

4.1.5. Have safeguards in place so that public health information does not harm individuals or communities. Public health information should not be used to harm individuals or groups. Cultural minorities are often particularly vulnerable. Protocols that are co-developed with those at risk should be in place to protect individual privacy and confidentiality. In small communities and when small numbers are involved, inadvertent personal identification is a possibility and steps should be taken to safeguard against it. Similarly, certain terminology and classification systems can stigmatize or otherwise adversely affect particular groups and communities. Appropriate care should be taken in anticipating public interpretation, misinterpretation, or adverse reaction to public health information and language. Early input about cultural beliefs and language barriers from community leaders, especially those who are members of potentially disadvantaged groups within the community, should be obtained. Dissemination efforts should include means to reach those whose literacy levels are lower than average norms, including children, adults with less education, and those with cognitive impairments.

4.1.6. Promote reflexivity to minimize the influence of biases on the research process. Public health practitioners should engage in ongoing reflexivity and acknowledgment of their positionality in the context of sociocultural and political influences. Engaging in practices that help characterize those biases and their influence on professional actions and interactions is especially important. Critical self-reflection is crucial in examining the types of research questions we construct and pursue, our approach to addressing these research questions, how we identify and engage stakeholders, how we interpret data, and how and to whom we disseminate research findings. Ongoing reflexivity is required to identify less visible or empowered stakeholders or changes in who has a stake in a public health policy, program, or research endeavor.

Domain 2: Investigate health problems and environmental public health hazards to protect the community

When investigating health problems and environmental hazards, it is necessary to collect the information most relevant to characterizing the problem in question and implementing control measures. There are several methods for doing so, all involving some form of active surveillance such as outbreak investigations or surveys of populations and individuals. Problems addressed could be short term, such as communicable disease, or long term, such as cancers associated with environmental exposures. Ethical considerations underlie many decisions

involved in any investigation. General issues such as maintaining confidentiality to the extent possible and avoiding conflicts of interest emerge in this domain (as well as in many others). Practical issues related to investigation itself have moral valences. For example, investigators must decide which populations or groups to survey, what data or specimens to collect, how to present the results of the investigation, and how to respond to protect the public. All these activities involve trade-offs between individual privacy and confidentiality and the right of members of the public to know about problems and hazards that could affect them. Attention should be paid to including vulnerable groups (e.g., children and elders) that might be omitted in data collection efforts.

Ethical policies and practices used to investigate health problems and environmental health hazards should:

4.2.1. Detect, recognize, and acknowledge public health threats promptly and efficiently. Given the responsibility public health practitioners carry to protect the public, they must continuously monitor communicable disease and environmental data, periodically conduct risk assessments about potential environmental hazards, and diligently scan the built and natural environments to recognize public health threats promptly. Clues to the presence of public health threats come from varied sources, such as reports of notifiable conditions received from health care providers and labs, disease registries, and anecdotal reports. Decisions to set response thresholds too high or to require additional unnecessary data collection may contribute to a delayed response.

4.2.2. Avoid conflicts of interest that could interfere with the willingness to acknowledge public health threats. Personal or organizational conflicts of interest and conflicts of commitment (e.g., subordinating the obligation to public service to more parochial interests or objectives) must be avoided, as they could influence how a public health practitioner or public health agency acknowledges or responds to a threat. Organizational conflicts can also occur when different agencies want to protect themselves or compete with others in making a response.

4.2.3. Ensure that investigators use resources efficiently and effectively. Public health research and practice frequently involve the use of scarce public resources. Therefore, public health practitioners have an obligation to evaluate each investigation and demonstrate that they have used resources efficiently and effectively.

4.2.4. Ensure data validity, account for the limitations of available data, determine statistical thresholds for defining significance, and take steps to assist others who use the data, including the media and policymakers, so they will not draw inappropriate conclusions regarding cause and effect. The science of epidemiology identifies associations between exposures and disease and assists in determining whether and how these associations represent causal linkages. Those inexperienced in epidemiology may make false assumptions about these associations. This is particularly problematic when done by individuals in policy-making positions. Public health practitioners have a responsibility to collect high-quality data; assess and account for data limitations and potential confounders and modifiers in analyses, conclusions, and reports; and protect against misinterpretation, misrepresentation, and misunderstanding of data and findings. This applies to data from both quantitative and qualitative research.

4.2.5. Give special attention to protecting the privacy and confidentiality of individuals when gathering data, collect only data elements and specimens necessary for disease control or protection, and remove personal identifying information from the data set as soon as it is no longer needed. The nonconsensual nature of many investigative activities requires that public health investigators give special attention to individual privacy and confidentiality. In addition, even aggregated data can be linked to individuals when small numbers and rare demographic features are involved.

4.2.6. Balance the public's need for information with the possibility that an investigation's results will create undue burdens or stigma for populations, groups, or individuals or cause other adverse outcomes. Even when aggregated data are being reported, the results have the potential to stigmatize specific populations or create financial risk for individuals in exposed communities, including adverse economic impacts of public health communications such as loss of equity value in homes or increased insurance costs.

4.2.7. Require reporting of findings promptly, especially to individuals and community partners who contributed data to the investigation. Prompt reporting is essential if public health practitioners wish to maintain trust with affected individuals and communities.

4.2.8. Ensure that resulting interventions have the least restrictions necessary to protect the public. After the completion of an investigation, public health practitioners might consider a number of potential responses, all of which are likely to have ethical implications, especially if they involve restrictions on the movements of individuals and populations (e.g., isolation and quarantine) or the use of sanctions to promote desirable behavior and deter undesirable behavior. Public health practitioners have the responsibility to ensure that they use the least restrictive interventions necessary to achieve these goals while reducing the negative effects of these interventions, such as providing adequate food and water for quarantined populations. In addition, public health practitioners have a responsibility to ensure that their recommendations and interventions do not lead to increased health disparities.

4.2.9. Ensure that resulting interventions do not have a disproportionately negative impact on minority or otherwise vulnerable populations (including children and elders) and that there is an effort to enhance the resilience of populations and ecosystems to prevent future harm. Some decisions public health practitioners make involve distribution of scarce resources, such as vaccines, antiviral medications, or ventilators, or imposition of regulations, such as whether health-promoting or health-reducing substances are allowed in specific areas or accessible to specific populations. Public health practitioners have an obligation to work with community stakeholders to develop equitable, transparent systems for distribution and allocation and to ensure that regulatory burdens do not disproportionately affect a minority or vulnerable population.

4.2.10. Empower community members and stakeholders to be active participants in the decision-making process. Public health practitioners can build trust and increase their effectiveness by creating

meaningful opportunities for dialogue; being open to unanticipated ideas; attuning themselves to cultural, social, and historical contexts that influence environmental and community health; and being receptive to partnerships. In creating such opportunities, it is not enough to simply schedule meetings or events; it is also necessary to address community background factors or barriers (e.g., lack of transportation, child care services, and translation services) that could limit otherwise desired participation by individuals or groups. Engagement of young and elder people may require special effort.

Domain 3: Inform and educate the public about health issues and functions

Public health practitioners and organizations should strive to provide accessible information about public health issues and functions to the public, including but not limited to political leaders, health care providers, affected populations, and communities. Knowledge is a necessary (but insufficient) input into building healthy homes, workplaces, and communities. Imparting accurate and accessible information requires that public health practitioners and organizations use a variety of communication techniques and teaching methods, remaining sensitive to the diverse audiences they must reach. Doing so helps public health practitioners meet their goals of protecting the health and safety of individuals and fostering the health of communities.

Ethical policies and practices used to inform and educate the public about public health issues and functions should:

4.3.1. Engage all members of the community. Public health activities touch all members of a community, even those who do not recognize the work of the field. All members of a community should know or be made aware of how the efforts of public health practitioners and organizations help to keep them safe and healthy.

4.3.2. Attend to the needs of diverse audiences. Public health organizations serve individuals and communities that vary with respect to demographic characteristics, social and cultural factors, familiarity with public health, and health status. Ensuring that information and education about public health issues and functions are tailored to the needs of diverse audiences is critical to meeting the obligations of health and safety, justice and equity, and inclusivity.

4.3.3. Be honest and accurate. The design, implementation, and outcomes of some public health efforts are straightforward and extremely successful, while others are complex, debated, and uncertain. Public health practitioners and organizations must be honest and accurate when informing and educating the public about actual and potential public health issues and functions, including acknowledging strengths and vulnerabilities about what public health practitioners and organizations know and what they can and cannot do. Honesty and accuracy build public trust, which is essential for the success of most public health efforts. Being honest and accurate in communications with the public also demonstrates respect for the individuals and communities that public health serves.

4.3.4. Portray risk in a variety of ways. Many public health efforts are related to preventing or mitigating risk of poor health outcomes. Yet, risk is poorly understood and misinterpreted by human beings. Risk of an outcome is a combination of the gravity of a potential harm and the likelihood of its occurrence.

Public health practitioners and organizations should communicate and educate about risk in a variety of ways (e.g., absolute vs. relative) to avoid overemphasizing or underemphasizing potential harm.

4.3.5. Engage individuals and communities in the development of individual and collective solutions to public health issues. The process of informing and educating the public about public health issues and functions should include messages and processes that empower individuals and communities to participate in the development of healthy communities. Recognition of the interdependence of health and the solidarity needed for solutions to public health problems should be clearly communicated to the public.

4.3.6. Incorporate individual and community experiences and perspectives in the development of individual and collective solutions to public health issues. Informing and educating the public is an important ethical responsibility, but it is incomplete without the openness and willingness of public health practitioners to listen and learn. Neither public health, including its partners and collaborators, nor the communities it serves have a monopoly on scientific knowledge or ethical discernment. Practicing and engaging in ongoing processes of civic learning is fundamental to good public health outcomes.

Domain 4: Engage with the community to identify and address health problems

Public health practitioners and organizations should strive to create meaningful opportunities to involve members of the public in decision making and to build community partnerships that are based on mutual respect, co-learning, and shared power. These engagements and partnerships should seek to develop and implement policies and practices that improve population health and reduce health disparities; cultivate resilience, efficacy, and agency among individuals and communities; and promote accountability of and trust in public health institutions. Strong trusting partnerships can serve as a moral compass for routine public health planning and programming and in public health emergencies.

Ethical policies and practices used to engage with the community to identify and address health problems should:

4.4.1. Create meaningful opportunities for ongoing dialogue with stakeholder communities and the public at large to identify health challenges, opportunities, and priorities for action. Meaningful opportunities for dialogue provide people with factual and unbiased information communicated in plain language that the public understands, with adequate time to ask questions, express views, and receive feedback in an environment of mutual respect and reciprocity.

4.4.2. Encourage building public health capability early in life. Work should be done with schools, educators, parent groups, and others to provide improved health education to children. Health literacy in childhood and adolescence is a culturally and political sensitive topic in the United States, but constructive approaches can be developed with the help of educators and parents, among others. Many indicators of child health are alarming, and a life-span perspective indicates that many adult illnesses are affected by health experiences—both medical and psychosocial—early in life.

4.4.3. Be diligent in identifying communities and groups with a stake in health planning and programming activities. Inclusive efforts to identify and reach out to populations with a stake in health planning and programming and to reduce barriers to their participation are essential for public health success, especially including often omitted groups such as young and elder people. Such efforts need to extend beyond health care to other social sectors and involve both recognized community leaders and stakeholders without formal leadership positions.

4.4.4. Convene stakeholders throughout all phases of policy and intervention development, implementation, and evaluation. Inclusion of community members early and throughout health planning and programming can enrich team learning, improve the quality and relevance of health programs and interventions, identify and build community leadership, and strengthen community capacity and vitality.

4.4.5. Be responsive to community perspectives on health challenges, opportunities, and priorities for action. A responsive stance recognizes that communities living with health deficits are often best situated to understand the challenges to and opportunities for better health. Members of these communities have lived experience with social conditions that are detrimental to health and health conditions that can compromise well-being and agency. Ignoring community insights and experience can lead to ineffective programs and wasted resources and cause or compound public mistrust.

4.4.6. Be open to unanticipated ideas for creating positive change. Communities can be a rich source of creative ideas for health improvement, reflecting deeply situated knowledge of where and how people connect, share ideas, and influence positive change.

4.4.7. Be attuned to cultural, social, and historical contexts that influence community health and receptivity to public health partnerships. Attunement to cultural, social, and historical contexts is particularly important when addressing health disparities because communities burdened by excess illness and disease may also be socially disadvantaged by discrimination related to race, ethnicity, age, social class, geography, immigrant status, and sexual orientation and gender identity, among other differences reflected in social hierarchies.

4.4.8. Promote sharing decision making, information, and resources with community partners. Strong community partnerships are built on and sustained by a commitment to equity and respect, demonstrated through shared decision making and collaboration during the planning and implementation of public health interventions. This approach need not abrogate a public health agency's legal authority or ethical responsibility. Overall, however, the effectiveness of many public health efforts is enhanced rather than undermined by taking a respectful and cooperative approach with affected communities and stakeholders. Not all public health decisions require or are amenable to public participation, but if public health practitioners decide not to involve the public—in order to protect confidential information, to avoid panic, or to avoid giving unfair advantage to certain interested parties, for example—they should be prepared to publicly defend their decision after the fact

and demonstrate why it is or would have been unrealistic or counterproductive to make the decision-making process more participatory.

4.4.9. Seek to enhance resilience, efficacy, and agency in individuals and communities. Effective public health planning and programming draws on community resources and creativity and strives to strengthen the capabilities of individuals and communities to respond creatively, preventatively, and proactively to everyday health challenges and emergent health crises.

4.4.10. Build relationships and partnerships based on mutual respect and reciprocity, recognizing the dignity and capability of individuals and the assets and strengths of the community. Community engagement and partnerships built upon these ethical guideposts can promote the accountability of and trust in public health.

Domain 5: Develop public health policies and plans

Public health practitioners and organizations should strive to develop meaningful, effective, and practicable health policies and plans aimed at improving population health. Public health measures are most properly applied when they are based on the best available scientific evidence and incorporate the knowledge gained through previous public health activities and community engagements. Efforts to promote the public's health must be applied in a manner that incorporates feedback from the affected communities, local values and customs, and appropriate measures to avoid harm to or stigmatization of community members. Moreover, it is imperative that public health practitioners implement measures that will respect the privacy and personal autonomy of affected individuals and will minimize infringement upon personal liberties and adverse health or social outcomes.

Ethical policies and practices used to develop public health policies and plans should:

4.5.1. Be designed with input from community members and be sensitive to local values and customs. Public Health policies and plans will be most effective when community members participate in their development. By encouraging community participation, public health practitioners will ensure that public health plans and policies are relevant and feasible within the communities in which such plans and policies will be implemented. Specifically designed intergenerational conversation may allow richer conversation bridging past, present, and future.

4.5.2. Incorporate scientifically vetted, research-based data to the fullest extent possible. Valuable financial and personnel resources are used in the development and implementation of public health policies and plans. Therefore, care should be exercised in ensuring that the bases of such policies and plans have been rigorously tested and proven viable.

4.5.3. Consider the experiences of designing and implementing these types of policies and plans within the community in question, as well as in other similar communities, and incorporate lessons learned from these experiences into future design and implementation efforts. Public health practitioners should seek to learn from their own and others' public health efforts in the development of public health policies and plans to avoid pitfalls and improve upon successes. In this way, practitioners will make best use of limited resources.

4.5.4. Promote policies that enhance community health and well-being and collaboratively respect the privacy, dignity, and civil liberties of individuals and communities affected by the policies and plans. Public health policies and plans are inherently focused on improving health across populations rather than focusing on any one individual. Special care should be taken to ensure that individuals and communities are respected and afforded appropriate ethical consideration during the development and implementation of such policies and plans.

4.5.5. Avoid unintentional stigmatization of specific groups within the community. Public health policies and plans can inadvertently bring unwanted or undue focus on certain individuals or groups. This should be avoided to ensure protection of privacy and prevent embarrassment and/or social ostracism.

4.5.6. Aim to improve the health of - and health care for - all vulnerable populations impacted by existing disparities and inequities. Health and health care disparities are commonplace in our society. In improving the health of a population, the concept of social justice renders it imperative that public health practitioners recognize the unmet needs of vulnerable populations, including children and elders, and seek to eliminate existing inequities.

4.5.7. Consider and, where possible, address determinants of health that reside outside a person's genetic endowment and personal behaviors, including the circumstances in which people grow, live, work, and age. These determinants might include individual resources, community resources, hazardous exposures, and opportunity structures. Appropriate measures must be taken to minimize the impact of inadequate individual or community resources by ameliorating shortcomings or inequities to the extent possible. Moreover, after a careful analysis of the social and environmental determinants of health within the community, appropriate remedial efforts must be taken to prevent further harms precipitated by such factors.

4.5.8. Reduce or eliminate negative impacts on communities and the environment, particularly as these negative impacts tend to be disproportionately experienced by individuals already faced with health inequities. Public health practitioners must be sensitive to the impact of identifiable health determinants on all members of society, noting that vulnerable populations may well be most affected in these circumstances. In response, educational, social, and public health measures must be appropriately tailored to meet the needs of specific population audiences.

4.5.9. Ensure that reasonable alternative options are considered and evaluated and that final public health policies and plans are designed to most effectively accomplish stated goals while minimizing the potential for harm. Attention must be paid to potential undesirable consequences such as limitation of individuals' autonomy or personal liberties, potential breaches of privacy, and/or social alienation of specific population groups. It is incumbent upon public health practitioners to draw on their own and others' expertise and previous experiences to determine the best course of action in view of potential negative consequences.

4.5.10. Include impartial mechanisms for assessing the ethical appropriateness of public health policies and plans after they have been implemented, as well as mechanisms for adjusting such policies and plans to ensure continued adherence to ethical standards. All public health interventions must be subject to systematic ethical reviews with the intent of ensuring that the benefits of the interventions are achieved in a way that minimizes burdens on the individuals and communities being served. These ethical reviews should incorporate frank discussions involving representatives of the community, specific community populations (where applicable), and public health leaders.

4.5.11. Ensure that public health policies and plans are sensitive to race, ethnicity, sex, sexual orientation, gender identity, and other unique characteristics of individuals affected by the policies or plans. Public health measures must consider the culture, language, and health beliefs of all individuals they aim to serve. Public health practitioners should, in the development of public health plans and policies, recognize that individual community subpopulations may express specific needs, beliefs, and preferences. These factors should be incorporated to the greatest extent possible to facilitate a sense of inclusion while simultaneously enhancing the efficacy of public health interventions.

Domain 6: Enforce public health laws

Governmental regulatory agencies should partner with public health practitioners and organizations to protect individual and population health, safety, and welfare by ensuring that individuals and businesses abide by public health laws. Government agencies are authorized to act to protect and improve health by enforcing regulations aimed at implementing and managing practices that promote health, protecting against injury or disease, ensuring the administrative capacity of organizations carrying out public health functions, and monitoring and responding to health and safety issues within the jurisdiction. Enforcement of public health laws provides government agencies with an opportunity to build trust with the community, improve the accountability of organizations whose actions impact health, and reduce health disparities. Enforcement of public health policies, or lack of enforcement, may itself serve either to mitigate or to reinforce existing health disparities; care should be taken to avoid the latter. Government public health authorities have a duty to enforce public health laws effectively to fulfill the values and goals of public health.

Ethical policies and practices used to enforce public health laws should:

4.6.1. Be established by government authorities authorized to enforce public health laws. Government officials are obligated to address the ethical issues associated with public health laws. Ideally, ethical considerations are examined and deliberated during the drafting of public health laws and regulations.

4.6.2. Mitigate health disparities. Public health law enforcement should aim to improve the health of individuals in underserved communities and those experiencing the greatest disparities in health. During implementation of public health laws, regulatory bodies should use scarce resources efficiently to produce just outcomes, with a fair and equitable distribution of resources.

4.6.3. Avoid infringing on individual liberties and privacy to the extent possible. Public health typically focuses on population health rather than individual health. However, the pursuit of population health in any specific context or setting should be accompanied by respect for the rights of the individuals who make up that population. Enforcement of public health laws and implementation of public health measures should adhere to due process of law in protecting individuals' rights to privacy, liberty, and autonomy. When individual interests and rights must be infringed, the least restrictive effective means should be employed, and accessible complaint and restitution mechanisms should be in place.

4.6.4. Encourage participation by nongovernmental entities. Participation by nongovernmental entities in both the drafting of public health law and implementation of regulations (e.g., built-in comment periods and draft iterations before final rules are released) will promote more effective implementation. True partnership during the drafting and implementation phases with nongovernmental entities working within communities will ensure that regulations fulfill their intended purpose.

4.6.5. Include appropriate publication of the public health law and educate the public on how to comply with both the letter and the spirit of the law. Nongovernmental public health authorities can provide support in educating the public about health laws.

Domain 7: Promote improved access to social resources conducive to health and health care

Public health practitioners and organizations should strive to promote and improve both population and individual health using multiple strategies based on epidemiological, medical, and social scientific research. The ethical action guidance offered below addresses four areas in particular: (1) health information and literacy, (2) social determinants and inequities that limit the capabilities of individuals and groups to achieve reasonable levels of health and functioning, (3) equitable access to public health services, and (4) equitable access to clinical medical and nursing care.

Ethical policies and practices used to improve access to social resources conducive to health and health care should:

4.7.1. Encourage collaboration with other health experts, professional associations, and civic groups to improve health care finance and delivery. Achieving universal, equitable access to key resources conducive to health and health care requires the engagement of all health-associated sectors, including public health. Public health organizations and practitioners have obligations to ensure equitable access to clinical medical nursing, and ancillary care. Through research and reasoned argument, public health practitioners and organizations should assist in the promotion of adequate geographical coverage of essential health and nursing services in those areas where such physical access is lacking or unreasonably expensive or inconvenient. Public health organizations should address the situation and needs of those who lack access to affordable health insurance coverage, either in the private insurance marketplace or through publicly funded entitlement programs. Finally, public health practitioners should be vigilant concerning situations in which access to clinical medical services is blocked by the unwillingness of providers in a particular specialty or region to provide care. Public health organizations in some cases may be able to offer a safety net in such situations or should seek new ways to provide access to individuals whose personal interests or needs are marginalized or stigmatized.

4.7.2. Assist, through research and reasoned argument, the process of informing policymakers and the public concerning the requirements of a sustainable health insurance system that provides comprehensive and universal coverage. Currently, one of the most serious health risks in America is widespread factual misunderstanding about how sustainable social insurance systems function and what their requirements are, such as a shared sense of solidarity and the equitable sharing of financial risk. Public confusion and controversy about these matters is a major political obstacle to just health reform and to achieving the ethical goal of equitable access to health care. Educational efforts by public health organizations and practitioners in this area are no less ethically important than those pertaining to tobacco use, substance abuse, nutrition, or obesity.

4.7.3. Base health promotion efforts on respect for the dignity and capability of individuals, not on strategies of stigmatization or on appeals to motivations of fear, disgust, and shame. Clearly, public health must engage in health promotion and behavior modification efforts such as providing information, health education, and reasonable persuasion addressed to people's values and interests. Other health promotion efforts aimed at eliciting negative emotion and affect are also widely used and may be effective, but public health practitioners should exercise caution when following such strategies. The behavioral gains may be short lived, and the cost of using personal stigma and shame to deter unhealthy behaviors can be high in terms of the many other values public health stands for and promotes. The ethical importance of discouraging deleterious health behaviors does not justify stigmatizing individuals or groups engaging in those behaviors. Negative messaging cannot be controlled in society and culture and will likely redound to individuals and groups. Respectful messaging can help minimize stigma. Strategies based on stigmatization are likely to generate mistrust of public health institutions and professionals, thereby undermining efforts to gain public cooperation at other times.

4.7.4. Develop programs to promote health that supplement individual informed choice and access to clinical and preventive care by attending to the social environment. Public health efforts that address only the biological risk factors affecting populations and seek to provide only individual access to health insurance and clinical services are ethically necessary but insufficient. Improving access to the social environmental conditions and resources that enable individuals and groups to be healthy is a key component of the ethical service that public health should provide, and often does provide, to society.

4.7.5. Improve access to community-based public health services and outreach to underserved populations and those most affected by health disparities. Access to community-based services, including many vital preventive, harm reduction, counseling, and other programs, is an essential part of the social service and health care safety net. Public health should coordinate efforts to integrate health, mental health, and social services more effectively to meet the comprehensive needs of all populations, especially those underserved and most affected by health disparities.

4.7.6. Recognize and act upon the fact that the ethical obligation to provide access to health care is not limited to persons with citizen status only. The ethical obligation of public health to promote health and safety does not always entail proactive cooperation with law enforcement agencies. Public health problems often affect all members of a population or community, irrespective of individual

citizenship status. Citizenship status can be irrelevant to fulfilling public health responsibilities (e.g., ensuring a safe work environment or the safety of the food production system). Prioritization of legal action to address immigration status can undermine implementation of policies that seek to protect the public's health. Public health law and ethics both recognize the role of health institutions and professionals in safeguarding the privacy of all community members, which is often a necessary precondition for public health officials to be trusted with sensitive information they need to protect and promote the public health.

4.7.7. Engage in program planning to increase the capacity of the public health infrastructure to respond to increased need and to maintain equitable access to services. This is particularly important in anticipation of a growing population of uninsured, underinsured, or medically indigent persons. Policy and funding advocacy for maintenance and support of this infrastructure is not only ethically permissible but required in times of systemic, inequitable access to health care.

Domain 8: Maintain a competent public health workforce

Public health leaders, researchers, and organizations cannot protect the public's health and perform their ethical obligations to society unless a well-trained, competent, and well-motivated workforce exists as a resource to support them. Ultimately, society must support this vital resource and provide the education and public funding necessary for its maintenance. Nonetheless, the field of public health itself and public health organizations must also do their part to maintain a competent workforce. This domain of public health has ethical significance because the ethical goals of public health cannot be met unless the work of public health is well done.

Ethical policies and practices used to maintain a competent public health workforce should:

4.8.1. Provide ongoing training in all relevant areas to the workforce. Ongoing training of public health practitioners will be most effective if done with an eye toward career progression and building leadership capacity.

4.8.2. Promote education and training of public health workers from diverse social, cultural, economic, and other backgrounds and communities. It is ethically advisable to recruit into the public health workforce individuals from groups and communities disproportionately affected by public health problems. Over time, this will build better rapport between public health workers and those they serve.

4.8.3. Support access to public health education and training and provide financial assistance based on need. In-service training and career development should be available to public health practitioners and students regardless of their ability to pay. Public health practitioners have an ethical obligation to stay current with the most reliable knowledge in their fields and should not be deterred—or forced to make undue personal or family sacrifice—through the prospect of incurring burdensome educational debt. Here training programs include not only degree-granting programs but also conferences, workshops, and other professional development opportunities. Public health organizations that may sponsor these programs should set fees in accordance with this ethical consideration.

4.8.4. Provide adequate institutional and professional support to enable competent performance. In public health, as in other fields, there is a strong connection between individuals' competent actions and the context within which they practice. Public health leaders and organizations should recognize the nature and significance of supportive contexts and arrange for individual public health practitioners to be adequately supported. Without such support, competent performance is not a reasonable ethical expectation.

4.8.5. Encourage broad and creative thinking about educational and training needs. It is important to be aware of "real-world" environments and communities in which public health practitioners work and how that affects their effective competence. Training should also be provided in communications skills and political acumen related to public health work. Finally, attention should be paid to often underutilized educational models such as apprenticeships and mentoring. Such intergenerational learning opportunities can enhance learning about the evolution of problems over time and increase the imaginative space of solutions.

4.8.6. Incorporate ongoing evaluations of educational and training programs/activities. Scientific knowledge and social knowledge are essential to public health programs. These bodies of knowledge are dynamic, and continuing education is essential. This not only will put public health practitioners in a position to be more effective but will also help them remain alert to the emergence of new public health issues and novel challenges.

4.8.7. Provide ethics education as a central part of public health education and ongoing training. Public health practitioners should be trained to recognize and articulate the ethical aspects of their work. They should be trained in deliberative decision-making processes and aware of the need to evaluate the ethical implications of their interventions and programs.

Domain 9: Evaluate and continuously improve processes, programs, and interventions

Continuous quality improvement (CQI) approaches include a range of techniques but have at their heart cycles of plan-do-check-act. CQI submits plans, policies, and procedures to a cycle (with multiple iterations, if necessary) of taking action, evaluating the action, and modifying the plan or policy accordingly. The cycles can be quite short (a matter of days or less) or long term (months or even years). CQI is appropriately a part of public health accreditation processes. Many resources are available to guide efforts. Ethical issues are imbedded in the entire process based on the overarching value of attempting to provide constantly improving services to the public and other stakeholders. Many of the specific issues associated with components of the cycle (planning, investigation, research, action) are included in other domains.

Ethical policies and practices used to evaluate and continuously improve processes, programs, and interventions should:

4.9.1. Involve a commitment to a continuous improvement process for all essential programmatic components. Continuous quality improvement is essential to public health because it promotes

vigilance in staying responsive to ever-changing community and organizational needs and excellence in programmatic response. Moreover, it relates to other critical aspects of scientific method such as hypothesis testing, strategic planning, general program improvement, enhancement of education, and experiential learning.

4.9.2. Engage a wide spectrum of stakeholders in the improvement process. Public health belongs to everyone, and everyone has some responsibility for its ongoing improvement. Stakeholder analysis is a key aspect of CQI. For specific CQI projects, omitting relevant stakeholders accidently or intentionally can diminish the likelihood of positive outcomes.

4.9.3. Develop as appropriate strategic plans with measurable goals for essential program components. Strategic planning should include CQI, as all strategic plans need to adapt to changing internal and external circumstances. Strategic plans that are static and not incorporated into the life of the organization are likely to be a waste of organizational and social resources.

4.9.4. Incorporate regular reviews of all essential program aspects in the context of specified goals. Comparable and appropriate metrics should be used to evaluate community health programs in relation to other critically important activities. Triggers for new CQI cycles should be as transparent as possible.

4.9.5. Assess the environment for improvements in evaluation approaches. CQI methods are constantly changing, for example using new information technology approaches such as collection and mining of increasingly large data sets to find patterns that would otherwise go undetected. Hence, CQI processes should themselves be subject to CQI methodology.

4.9.6. Evaluate the quality improvement process on a regular basis. CQI processes should be built into performance metrics. For example, one can ask questions such as the following: What improvements in service quality or outcomes resulted from the human and financial resources allocated? What were the opportunity costs associated with CQI processes?

4.9.7. Involve an investment in relevant innovations in approaches to providing feedback through learning interventions. CQI promotes organizational and individual learning. Translating what is learned through CQI into ongoing individual, community, and organizational practices is essential. As appropriate, sharing with other organizations should be a key value to enhance the benefit of what is learned in one place, often at a high cost to that organization.

Domain 10: Contribute to and apply the evidence base of public health

Public health practitioners and organizations should strive to contribute to and use credible evidence to promote and improve population and individual health. This requires two essential conditions: First, public health practitioners must have basic skills to assist them in making sound judgments with respect to the quality and applicability of evidence. Second, public health scientists and researchers must possess high-quality skills in

research design, data analysis, and interpretation. Together, creating and applying evidence in public health practice helps public health practitioners and organizations meet their obligation to protect the public's health and promote human flourishing.

Ethical policies and practices used in contributing to and applying the evidence base of public health should:

4.10.1. Employ the best available evidence to guide public health work. Public health is a multidisciplinary field that addresses complex and varied issues requiring a variety of types of evidence. Determining what constitutes the best available evidence requires practitioners and organizations to consider findings from multiple disciplines as well as the lived experience of affected communities. In addition, it requires evaluation of the strength and appropriateness of various findings with respect to the context and character of the problem at hand. Use of best available evidence helps public health practitioners and organizations meet their obligations related to fidelity and responsibility, effectiveness, inclusivity, and responsible use of limited public resources.

4.10.2. Emphasize that scientific evidence comes in different forms with different degrees of certainty and probability. Public health evidence should be presented with a degree of certainty that is warranted by its underlying methodology and completeness. This applies to internal communications among public health practitioners as well as to external communications with policymakers and the public.

4.10.3. Consider evidence from multiple disciplines. Public health organizations address a complexity of distal determinants and a variety of the proximate determinants of health. This requires consideration of evidence from clinical and laboratory sciences, social and behavioral sciences, epidemiology, and the lived experience of affected communities. Consideration of the full body of evidence leads to more inclusive and effective interventions. Interdisciplinary and transdisciplinary approaches can enhance more basic multidisciplinary and cross-disciplinary approaches by intensifying the intergenerativity of boundary-spanning thinking and action.

4.10.4. Evaluate the strength and appropriateness of different types of evidence. The strength and appropriateness of evidence depend on the public health problem and context at hand. Some problems are new and require indirect or analogous evidence at the start; others are perennial and require a critical examination of often conflicting findings. Evaluation of evidence requires an understanding of the relative merits of various research methods, scientific disciplines, and types of data available given the specific public health problem being addressed. Using the strongest and most appropriate evidence available helps public health practitioners and organizations achieve their obligations of fidelity and accountability, as well as transparency.

4.10.5. Recognize and acknowledge when evidence is changing or incomplete and when assumptions or contexts change the relevance of evidence. Some public health problems are new or changing in such a way that evidence is unavailable or rapidly developing and changing. Identifying and communicating gaps in knowledge—knowing and communicating what we do not know—is an important aspect of judging strength of evidence, being accountable and transparent, and building public trust.

4.10.6. Involve an investment of resources in collecting ethically and methodologically sound evidence. Where evidence is lacking or conclusions are unclear, public health practitioners and organizations should both gather sound evidence that strengthens the ability to identify and address public health problems and support the collection of such evidence by others. When methods are inadequate for producing sound evidence, public health practitioners and organizations should invest in developing methods that meet the needs of public health science. When producing evidence, public health practitioners and organizations should comply with disciplinary ethics standards and expectations, including research integrity, ethical research practices, protection of human and animal subjects, and responsible communication of results. Investing in the production of sound evidence allows public health practitioners and organizations to honor their obligations to fidelity, effectiveness, and responsible use of scarce resources.

Domain 11: Maintain administrative and management capacity

Ethical standards of conduct apply directly to the decisions and actions of individuals at all levels of practice in public health. Because organizational leadership can create a climate that encourages or inhibits ethical conduct and practice, additional ethical expectations hold for individuals with administrative and managerial authority and responsibility. Sustaining an organization's administrative and managerial capacity is a part of public health ethics. The guidance within this domain pertains particularly to those in leadership roles who shape and maintain public health organizations and their capacity to carry out a public health mission in service to society. Public health ethics is attentive to the important interaction between individual character and activity on the one hand and organizational culture and support on the other. Individuals with ethical integrity make good organizations function, but an organizational environment and culture are also needed to support individuals with ethical integrity—to recruit them, enable them, and retain them.

Ethical policies and practices used to maintain administrative and management capacity in public health organizations should:

4.11.1. Provide for the recruitment, retention, and career development of highly qualified public health practitioners in managerial roles. The managerial capability of an organization depends upon the quality, experience, and professional expertise of those who fill leadership and managerial roles. Analytic reasoning skills, the ability to recognize ethical and value dimensions of public health practice, and an ethical vision for oneself and the organization should be among those qualities sought in managers and leaders in public health.

4.11.2. Ensure nondiscriminatory personnel practices in recruitment, hiring, retention, and promotion. Making leadership offices in public health equally open to all based on competitive merit is both a standard of ethics and a pragmatic practice that will maintain the quality of the public health profession over time.

4.11.3. Incorporate periodic financial disclosures and prohibitions on conflicts of interest, including perceived conflicts of interest applicable to all directors, management, staff, and the organization itself. The misuse of office or position for personal financial gain or other types of unfair

advantage must not be permitted. In addition, public health organizations and authorities must have policies and procedures in place to avoid creating actual or perceived conflicts of interest.

4.11.4. Maintain an organizational culture that promotes ethical integrity and equal dignity and respect in relationships among staff, with the outside community, and with the beneficiaries of the organization's public health programs and services. This is one component of the important objective of bringing about tangible change in the culture and practice of organizational management. Key values that the public health profession and public health organizations should promote and profess in the broader community should also be reflected within the culture, policies, and conduct of the organization, including incorporating into risk management ethical considerations that encourage transparency while ensuring individual privacy.

4.11.5. Establish employee performance standards and evaluations based on ethical standards of conduct and public health values. By including goals and objectives based on public health values in performance evaluations, managers can encourage employees to incorporate ethical considerations and conduct into their daily work.

4.11.6. Provide resources for periodic education and staff training concerning ethical issues that arise throughout the organization's work, both among staff and in the broader community. If individuals, including employees and leadership, and organizations are to be held accountable for compliance with ethical standards of conduct, it is ethically incumbent on organizations to provide the necessary learning, professional development, and support.

4.11.7. Establish formal structures, such as ethics committees, to address and resolve ethical disagreements and challenges and to enhance organizational ethics and decision making. Formal structures such as ethics committees that include community stakeholders and employees can create a climate of ethical performance by promoting open, transparent decision making while building community trust.

4.11.8. Incorporate ethics into quality improvement and performance management policies and activities. Quantifiable performance metrics should be attentive to the effects policies, programs, and practices have on equity, public trust, and public perceptions of the organization; respect for vulnerable individuals; and engagement with vulnerable communities.

Domain 12: Maintain capacity to engage with public health governing entities

Legally authorized public health governing bodies, agencies, and professionals are granted authority to develop and promote public health programming. These individuals and groups within the government can determine funding for public health activities and therefore have a duty to maintain open and responsive communication with the public. Similarly, nongovernmental public health organizations have a duty to ensure ongoing engagement with public health governing bodies, agencies, and individuals; to promote the interests of the public; to ensure transparent justification of government policies, regulations, and activities; and to influence the development and

maintenance of public health infrastructure. Organizations familiar with jurisdictions' needs should participate in public health law and regulation drafting processes to ensure that needs are met ethically and equitably.

Ethical engagement with public health governing bodies should:

4.12.1. Promote constructive communication among the public, nongovernmental entities, individuals, and groups that draft and enact public health legislation and individuals and groups within the government that develop and implement public health activities. Offering public comment periods for proposed legislation and regulation by the government and participation in comment periods by all who can participate (e.g., NGOs, the public, and individuals and groups within the government tasked with carrying out the government's public health programming) will aid effective execution of public health laws by setting reasonable operational goals and clarifying roles and responsibilities. This includes cross-government communication within, between, or among local, state, and federal governing bodies.

4.12.2. Empower nongovernmental entities to engage in open dialogue with the government. Nongovernmental entities are often positioned close to the communities and populations they serve and can quickly identify how those communities and populations might be affected by proposed or enacted regulations as well as government public health activities. Therefore, those entities should communicate with the government regarding how government regulations and activities are affecting, both positively and negatively, the populations served by the entities.

4.12.3. Promote openness among the government, nongovernmental entities, and the public regarding resource allocation and performance improvement. If the government is to allocate resources efficiently and effectively, particularly resources funded by taxpayer dollars, the government and nongovernmental entities should discuss expectations and reality regarding resource allocation when the government is implementing interventions as well as the steps the government is taking to improve efficiency and effectiveness.

4.12.4. Encourage policy development to protect the public's health. Improvements in public health over the past century are in large part attributable to the development of policies, ordinances, and statutes aimed at improving living and working conditions and safety, stymieing the spread of disease, and ensuring access to health care. Nongovernmental public health entities have an obligation to collaborate with the government to develop policies and regulations that promote health and to support governing entities in advocating for public health.

REFERENCES

1 By public health practitioner, we do not mean only those who work with governmental public health agencies, but also all those persons who are involved in the development, implementation, evaluation, and study of practices and policies designed to advance public health.

2 Thomas JC, Sage M, Dillenberg J, Guillory VJ. A code of ethics for public health. Am J Public Health. 2002;92(7):1057–1059.

3 Public Health Accreditation Board. Standards and measures, version 1.5. Available at: http://www.phaboard.org/wp-content/uploads/SM-Version-1.5-Board-adopted-FINAL-01-24-2014.docx.pdf. Accessed April 2, 2019.

VISION

Create the healthiest nation in one generation.

MISSION

Improve the health of the public and achieve equity in health status.

APHA champions the health of all people and all communities. We strengthen the public health profession. We speak out for public health issues and policies backed by science. We are the only organization that influences federal policy, has a nearly 150-year perspective and brings together members from all fields of public health. Learn more at **www.apha.org.**

APHA
AMERICAN PUBLIC HEALTH ASSOCIATION
For science. For action. For health.

800 I Street, NW | Washington, DC 20001 | 202-777-2742

APPENDIX D

Background

What is PH WINS?

The Public Health Workforce Interests and Needs Survey (PH WINS) is a national level survey of state and local public health agency workers that captures their perspectives on key issues such as workforce engagement and morale, training needs, worker engagement, emerging concepts in public health, as well as collects data about the demographics of the workforce. PH WINS is a partnership between the Association of State and Territorial Health Officials and the de Beaumont Foundation. First fielded in 2014, PH WINS is the only nationally representative data source of the governmental public health workforce.

The goals of PH WINS are to:

1. Influence future investments in public health workforce development
2. Identify trends in workforce attitudes, morale, and climate
3. Build the evidence base of cross-cutting training needs and skill gaps across the workforce

PH WINS provides information critical to understanding and improving the workforce that delivers public health services nationally, as well as actionable data for participating health agencies to address cross-cutting training needs and skill gaps. Findings from PH WINS 2014 have been used by participating health agencies to better understand and address workforce development, as well as federal and foundation partners to help inform future investments in public health workforce development.

PH WINS 2017

Building upon successful methods and lessons learned from PH WINS 2014, PH WINS was fielded for the second time in the fall of 2017 to provide actionable, high quality data to support the governmental public health workforce. 47 state health agencies, 25 large city health departments, and for the first time, workers in a nationally representative sample of local health departments were invited to participate in PH WINS 2017.

Methods

Sample Frames

All state health agencies and member agencies of the Big Cities Health Coalition, an independent project of the National Association of County and City Health Officials (NACCHO) were invited to participate in PH WINS. Additionally, a random sample of local health departments with at least 25 staff serving a population of at least 25,000 were invited to participate. Participating agencies identified a workforce champion, typically a human resources or workforce development director, or someone with interest or expertise in workforce related issues, to assist with the communications and promotional efforts. Agency staff were contacted by ASTHO via email to complete the online survey after receiving a staff list from the agency.

Launch and Administration

PH WINS was fielded from September 2017 - January 2018. Approximately 102,305 emails were sent to employees at 47 states, 25 large city health departments, and 71 independent local health departments. Reminder emails were sent by ASTHO staff and workforce champions throughout the survey period. In some cases, senior leadership also assisted in promoting and encouraging staff to participate.

Data

47,756 employees across 47 states, and 97 local health departments responded to PH WINS 2017. For this report, we used statistical methods to create an agency-level estimate that extrapolates the responses from staff who participated in the survey to everyone in your agency. We used a Balanced Repeated Replication estimation and also adjusted for non-response and used a finite population correction based on whether the employee worked at the agency's central office versus local or regional health departments. Agency-specific data are presented in summary tables and charts with national comparisons.

How to use this workbook

This report is organized by the major sections of PH WINS. Tables in this report represent the data by local health department (LHD), which is labeled by "Agency - 2017," and provides estimates for other local health departments which are labeled as "National LHD - 2017."

Role Classifications And The Foundational Public Health Services Model
To maintain privacy of our survey respondents we collapsed program areas and role classifications using the Foundational Public Health Services (FPHS) model. The definitions page explains how these variables were categorized.

Reading The Tables
Each table presented in this report will indicate whether your agency's results are statistically significantly different from the national average. Each estimate you'll see will have two parts - the point estimate and a confidence interval. For example, 78% of respondents in your jurisdiction (95% CI 76%-80%) may agree/strongly agree with a particular statement. The point estimate is the first part of the example (78%), while the confidence interval is the second (76%-80%). A 95% confidence interval means that if we were to repeatedly take independent samples of staff from your health department, 95% of the time the true value we are estimating will fall within that range - in this example 76%-80%. It is a measure of uncertainty that occurs because we don't have responses from 100% of your staff in PH WINS.

Reading The Charts
The charts in each worksheet represent the overall agency and national point estimates. When examining the charts be sure to note the title and axis labels.

Statistical Significance
To figure out if your jurisdiction's estimate for a particular item is different from the national average, check if your agency column's 95% confidence interval overlaps with the "National LHD - 2017" column's 95% confidence interval. For example, if your jurisdiction's estimate is 60% agree/strongly agree (95% CI 55%-65%) and the national average is 50% agree/strongly agree (95% CI 48%-52%), then because the two confidence intervals do not overlap, the difference is statistically significant. If, on the other hand, your estimate had been the same but the national average was 57% (95% CI 55%-59%), then the two confidence intervals (55%-65% and 55%-59%) would overlap. Even though your point estimate is different from the national average, that difference is not statistically significant. We would advise you to treat two estimates where the difference is not statistically significant as essentially equal for your policy or planning purposes. There may be some instances where confidence estimates go below 0% or above 100%; please interpret those as 0% and 100%, respectively. This occurs in circumstances where the number of responses is relatively low (for instance, job satisfaction among managers). As explained below, there are also circumstances where the number of responses are too low to create any estimates.

Why A Category Is Listed As 0 Percent Or Blank
You may notice in this report that certain values are omitted or listed as 0% in a given table. This occurs because the number of responses in that particular category are too low to generate reasonable estimates. We have included national estimates overall for informational purposes only. ASTHO staff will provide additional assistance, as needed, to help you or your staff interpret results.

Definitions

Supervisory Status

Non-supervisor: you do not supervise other employees
Supervisor: you are responsible for employees' performance appraisals and approval of their leave, but you do not supervise other supervisors
Manager: you are in a management position and supervise one or more supervisors
Executive: member of Senior Executive Service or equivalent

Training Needs Assessment

Importance: respondents were asked "how important is this item in your day-to-day work?" and given the answer choices "not important," "somewhat unimportant," "somewhat important," and "very important."
- Low importance is the aggregate of "not important" and "somewhat unimportant."
- High importance is the aggregate of "somewhat important" and "very important."

Skill: respondents were asked "what is your current skill level for this item?" and given the answer choices "not applicable," "unable to perform," "beginner," "proficient," and "expert."
- Low skill is the aggregate of "unable to perform" and "beginner."
- High skill is the aggregate of "proficient" and "expert."

Skill gap: a skill that respondents identify is of high importance to their day-to-day job and report low proficiency in that skill (high importance/low skill)

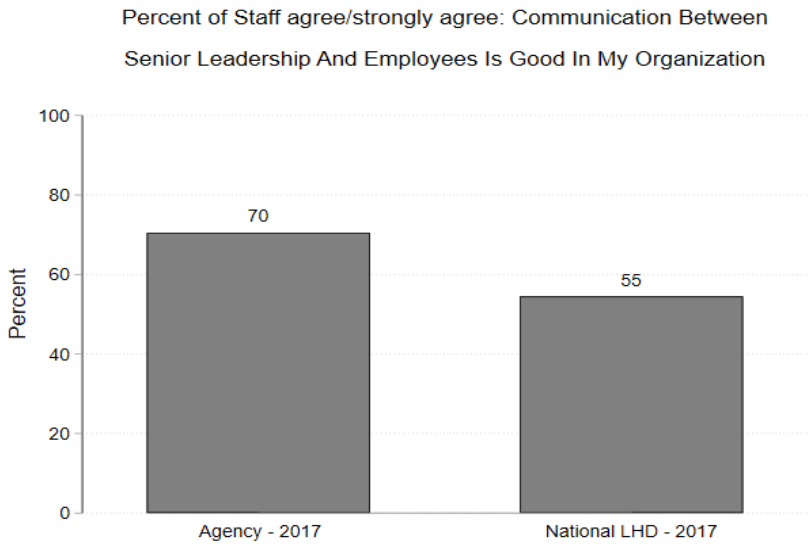
Program Area Classifications

Chronic Disease & Injury	Health Promotion/Wellness Injury/Violence Prevention Non-Communicable Disease
Communicable Disease	Communicable Disease - HIV Communicable Disease - STD Communicable Disease - Tuberculosis Other Communicable Disease
Environmental Health	Animal Control Environmental Health
Maternal and Child Health	Maternal and Child Health Maternal and Child Health - Family Planning Maternal and Child Health - WIC
Other Health Care	 Clinical Services (excluding TB, STD, family planning) Clinical Services - Immunizations Emergency Medical Services Mental Health Oral Health/Clinical Dental Services Substance Abuse, including tobacco control programs
All Hazards	Emergency Preparedness
Assessment	Community Health Assessment/Planning Epidemiology Surveillance Informatics Medical Examiner Public Health Genetics Public Health Laboratory Vital Records
Communications	Health Education
Organizational Competencies	Administration/Administrative Support Program Evaluation Training/Workforce Development
Other	Global Health Other Program Area (specify) I work equally in multiple program areas

Table of Contents

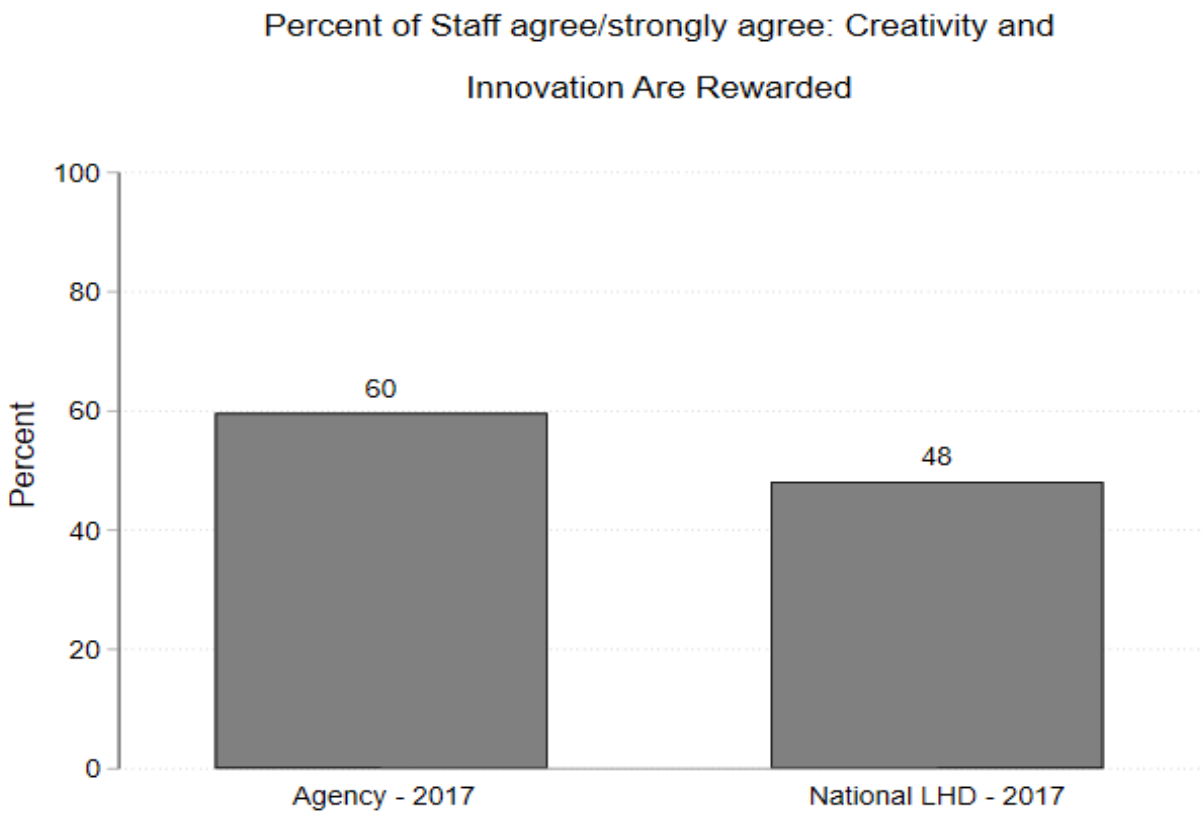
Percent of staff who agree/strongly agree that Communication Between Senior Leadership and Employees is Good in my Organization

Overall	Agency - 2017		National LHD - 2017	
	Estimate	95% CI	Estimate	95% CI
No	30%	19%-42%]	45%	43%-48%]
Yes	70%	58%-81%]	55%	52%-57%]



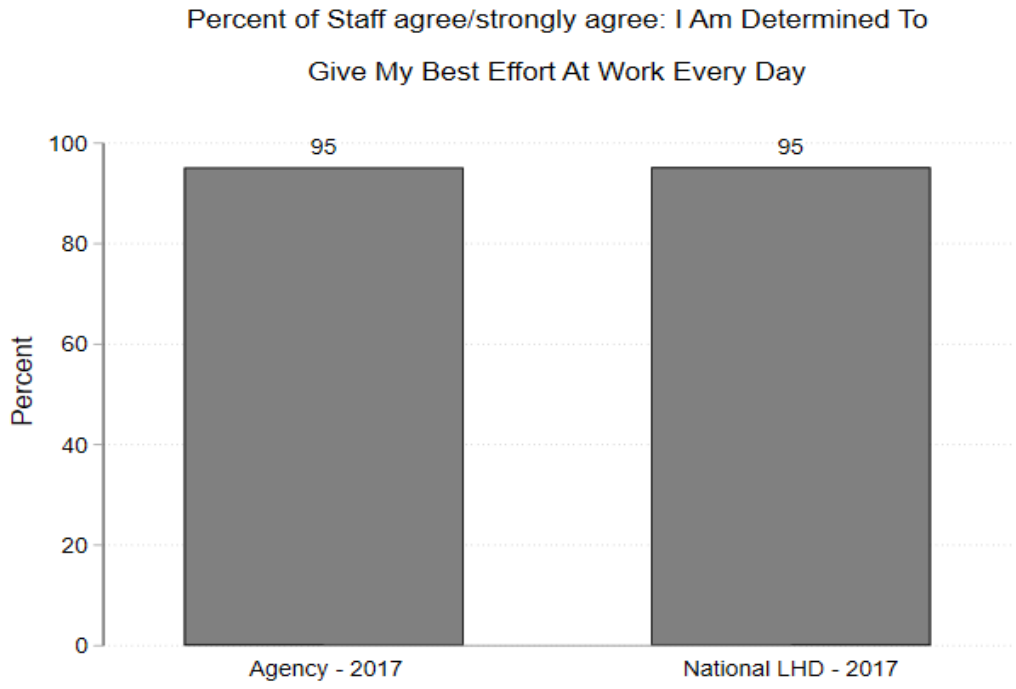
Percent of staff who agree/strongly agree that Creativity and Innovation are Rewarded

Overall	Agency - 2017		National LHD - 2017	
	Estimate	95% CI	Estimate	95% CI
No	40%	[29%-53%]	52%	[50%-54%]
Yes	60%	[47%-71%]	48%	[46%-50%]



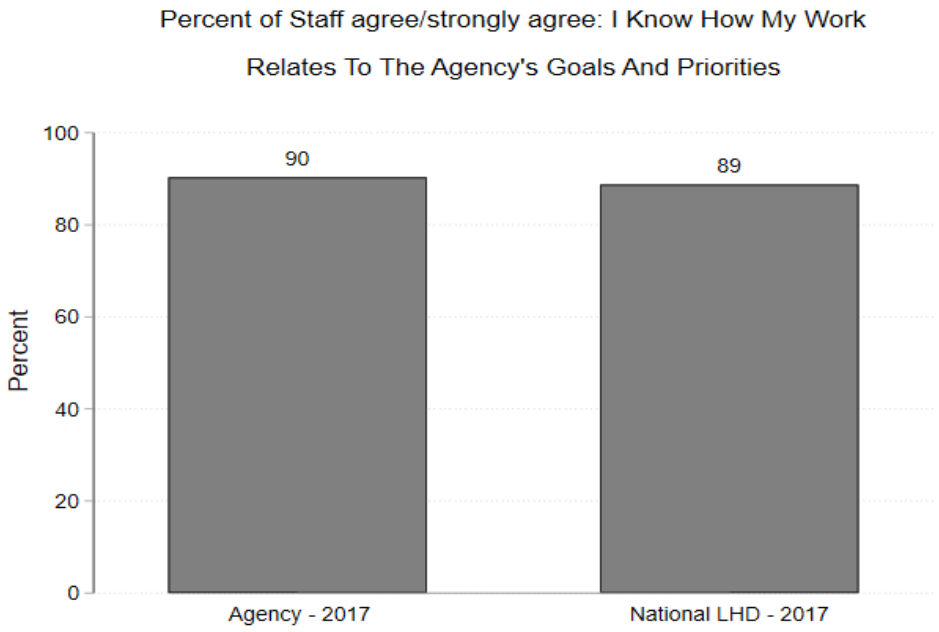
Percent of staff who agree/strongly agree that I am Determined to Give my Best Effort at Work Every Day

Overall	Agency - 2017		National LHD - 2017	
	Estimate	95% CI	Estimate	95% CI
No	5%	[2%-14%]	5%	[4%-6%]
Yes	95%	[86%-98%]	95%	[94%-96%]



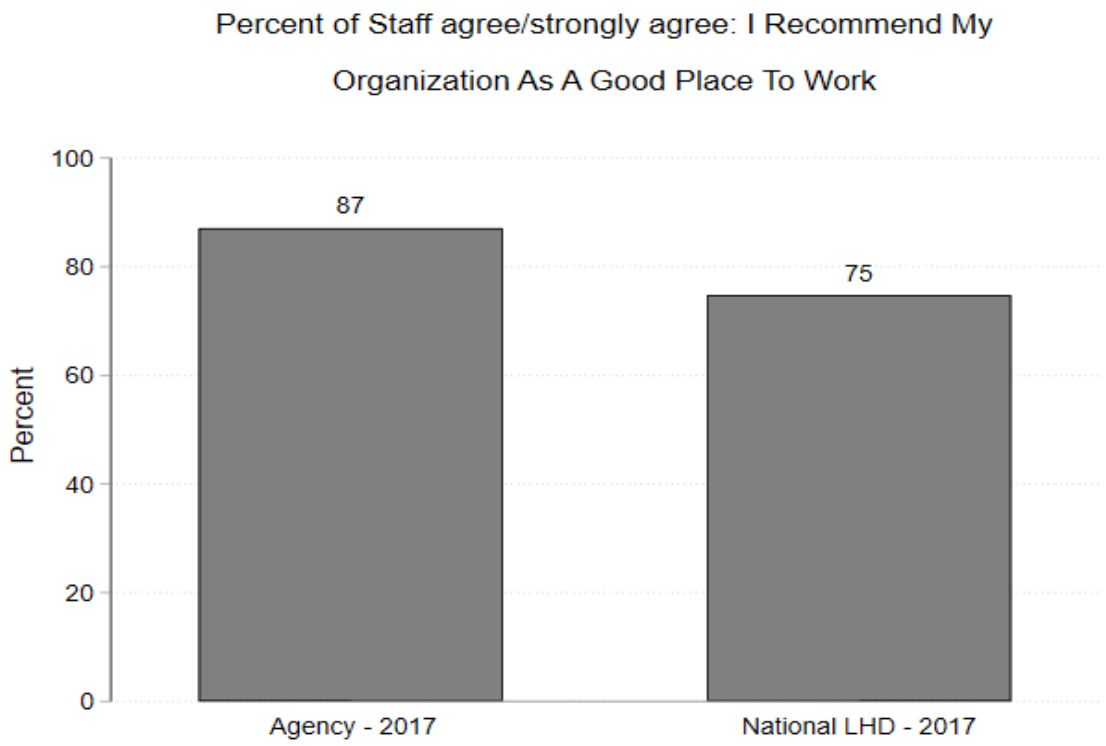
Percent of staff who agree/strongly agree that I Know How My Work Relates To the Agency's Goals and Priorities

Overall	Agency - 2017		National LHD - 2017	
	Estimate	95% CI	Estimate	95% CI
No	10%	[4%-20%]	11%	[10%-13%]
Yes	90%	[80%-96%]	89%	[87%-90%]



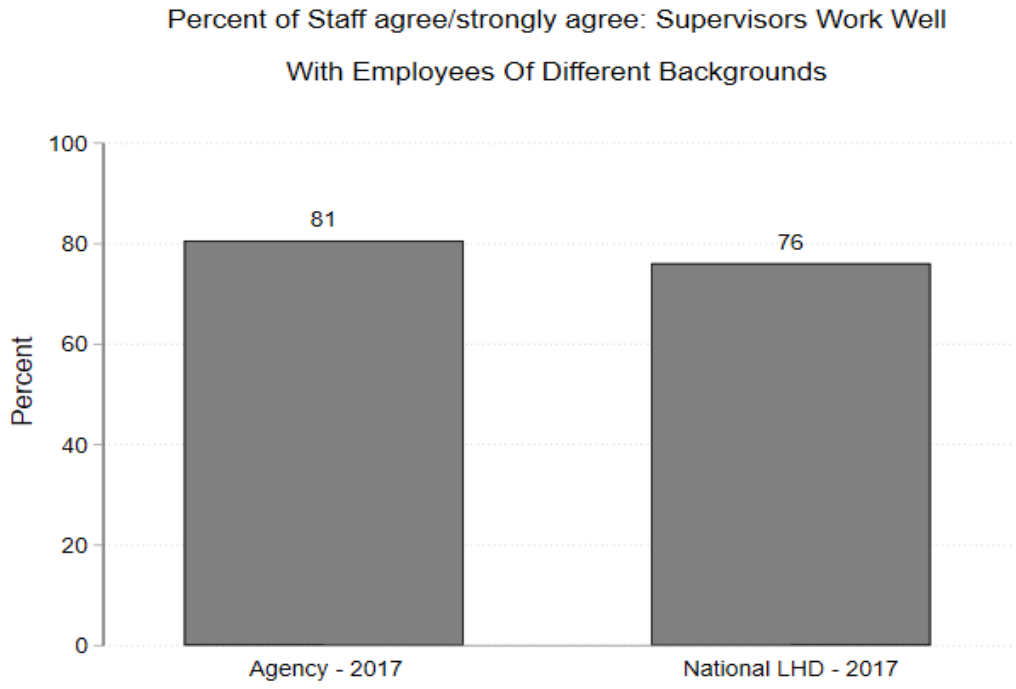
Percent of staff who agree/strongly agree that I Recommend My Organization As a Good Place to Work

Overall	Agency - 2017		National LHD - 2017	
	Estimate	95% CI	Estimate	95% CI
No	13%	[7%-24%]	25%	[23%-27%]
Yes	87%	[76%-93%]	75%	[73%-77%]



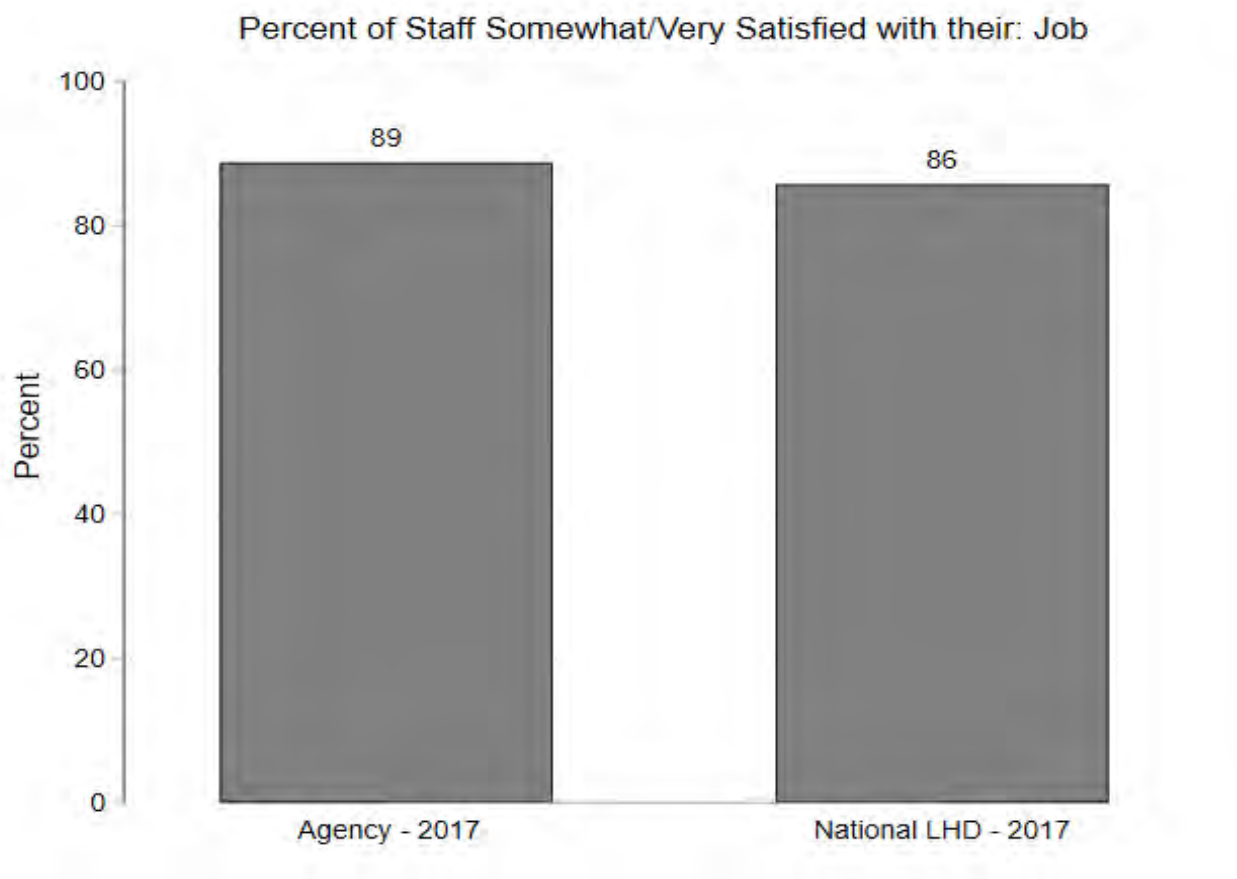
Percent of staff who agree/strongly agree that Supervisors Work Well With Employees of Different Backgrounds

Overall	Agency - 2017		National LHD - 2017	
	Estimate	95% CI	Estimate	95% CI
No	19%	[11%-31%]	24%	[22%-26%]
Yes	81%	[69%-89%]	76%	[74%-78%]



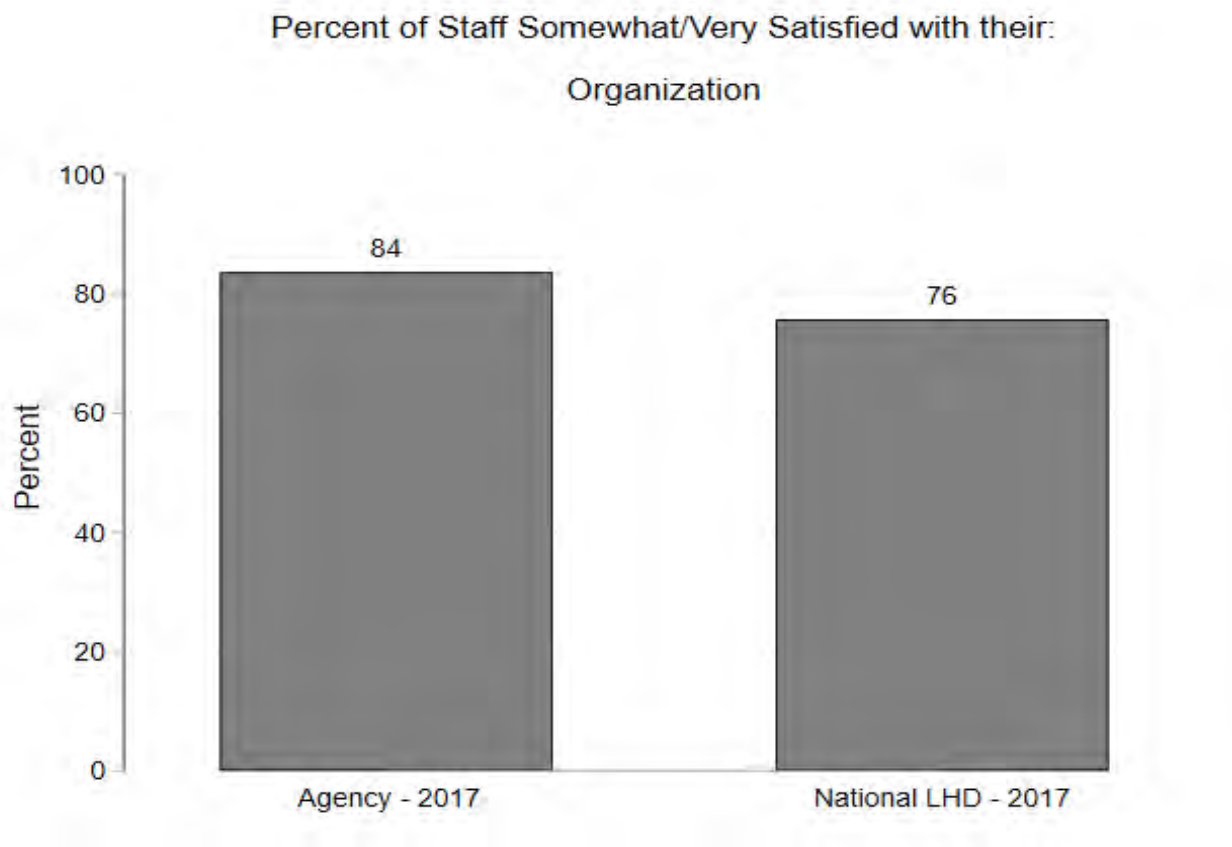
Percent of staff somewhat/very satisfied with their job

Overall	Agency - 2017		National LHD - 2017	
	Estimate	95% CI	Estimate	95% CI
No	11%	[5%-22%]	14%	[13%-16%]
Yes	89%	[78%-95%]	86%	[84%-87%]



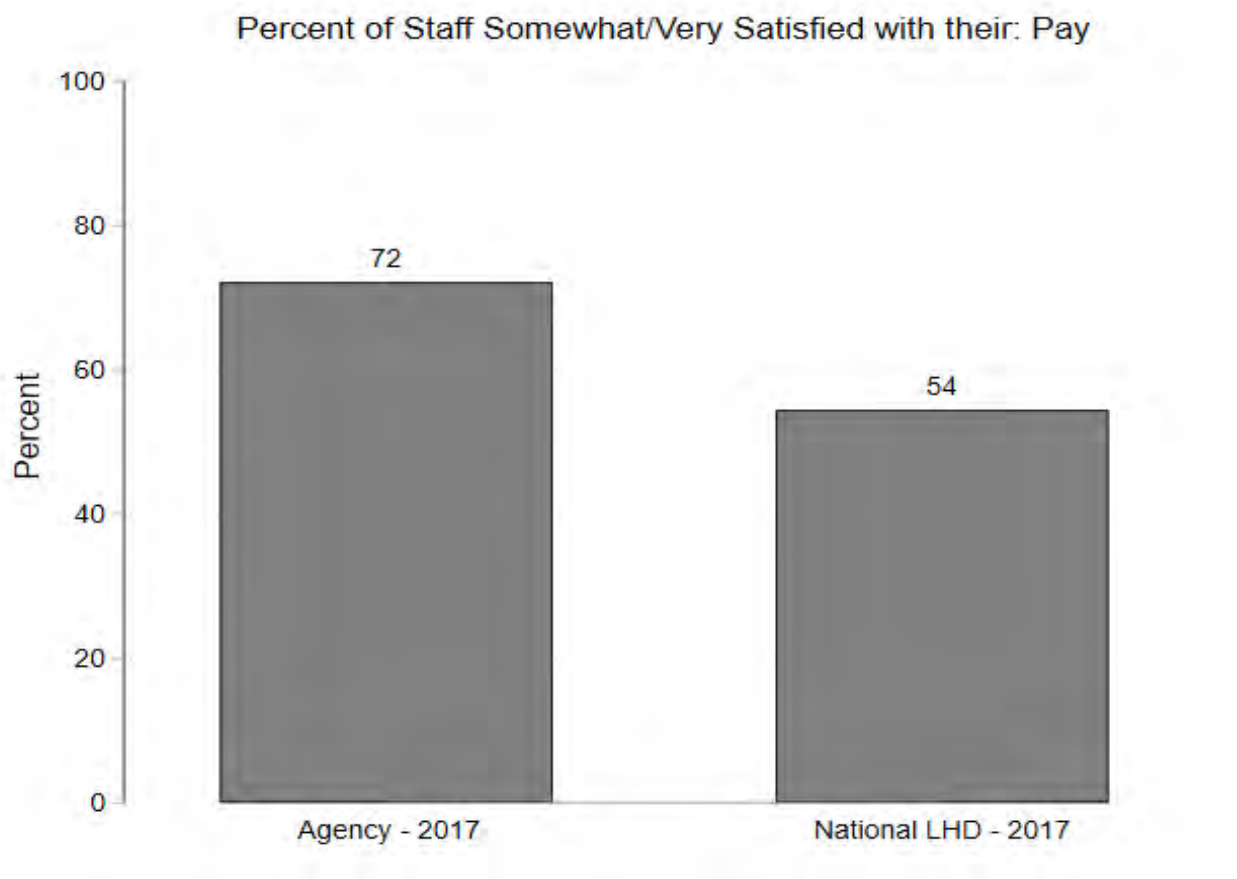
Percent of staff somewhat/very satisfied with the organization

Overall	Agency - 2017		National LHD - 2017	
	Estimate	95% CI	Estimate	95% CI
No	16%	[9%-28%]	24%	[22%-26%]
Yes	84%	[72%-91%]	76%	[74%-78%]



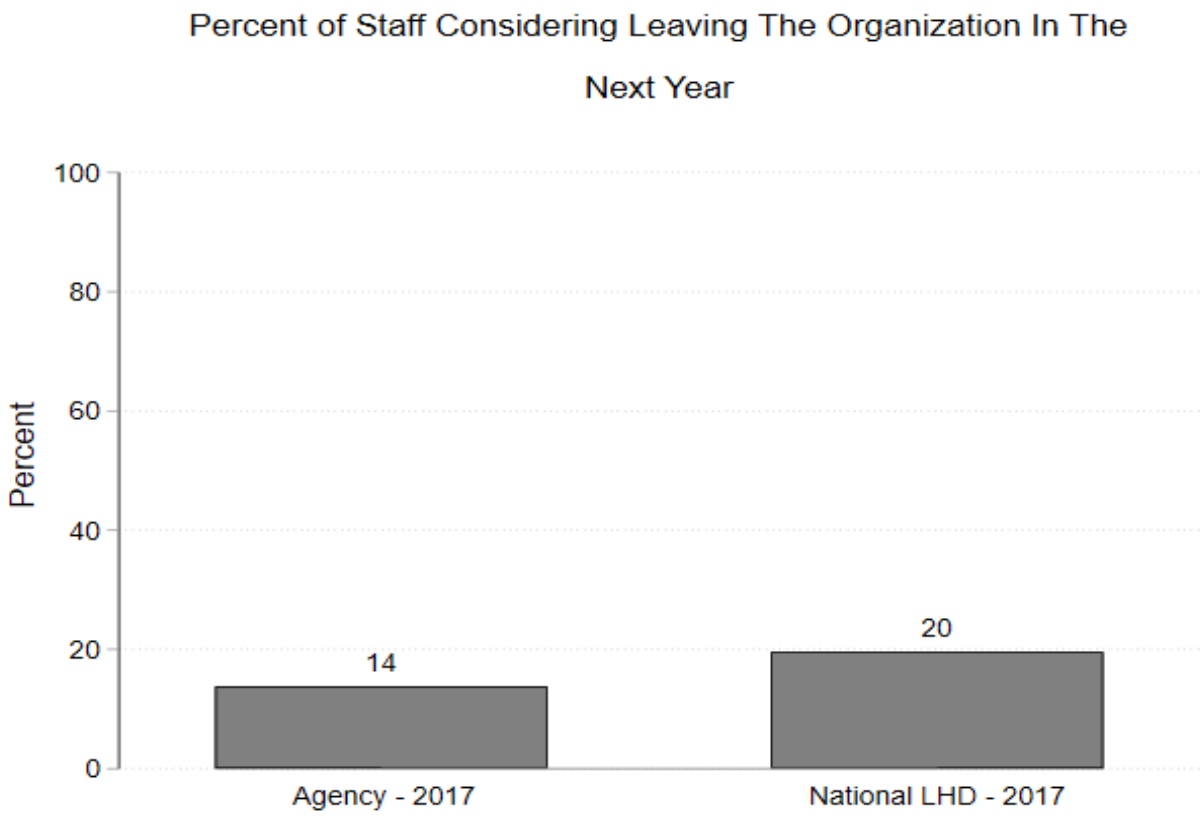
Percent of staff somewhat/very satisfied with their pay

Overall	Agency - 2017		National LHD - 2017	
	Estimate	95% CI	Estimate	95% CI
No	28%	[18%-40%]	46%	[43%-48%]
Yes	72%	[60%-82%]	54%	[52%-57%]



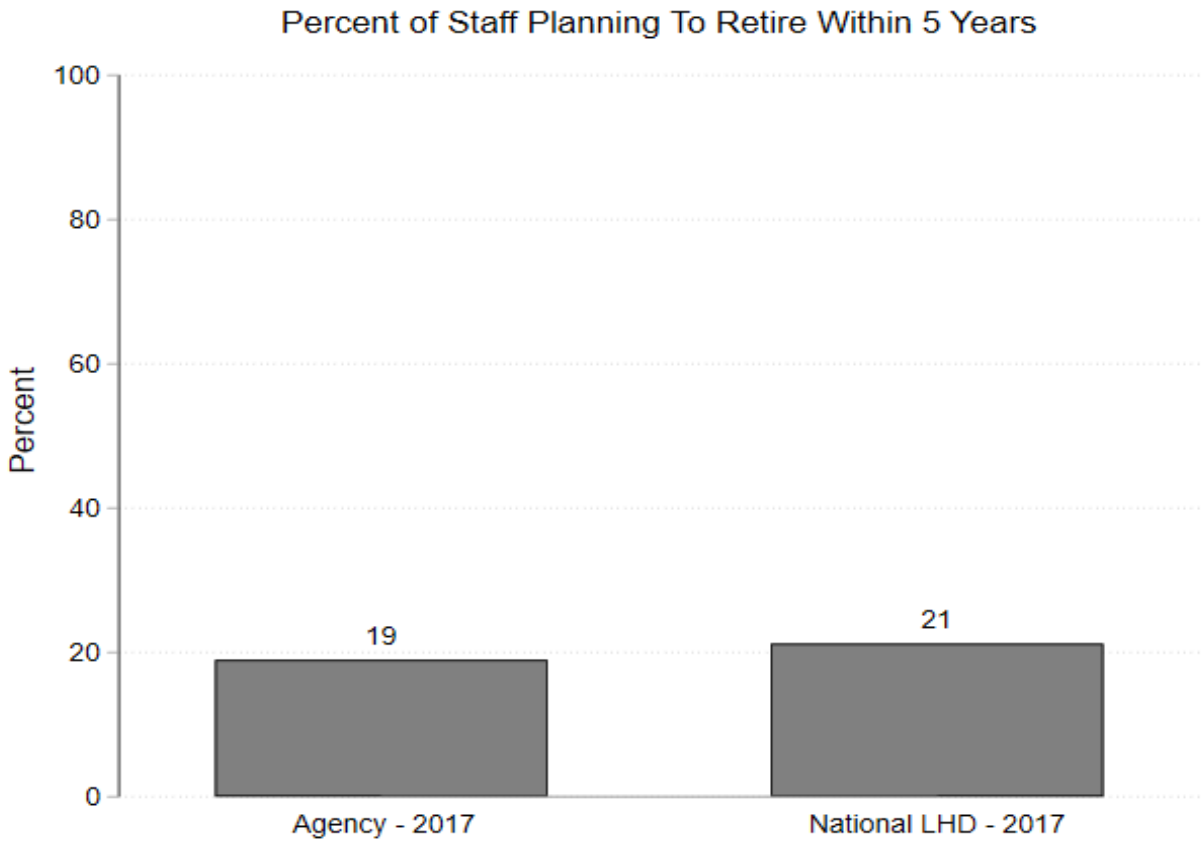
Percent of staff considering leaving agency in next year (excluding retirements)

Overall	Agency - 2017		National LHD - 2017	
	Estimate	95% CI	Estimate	95% CI
No	86%	[75%-93%]	80%	[78%-82%]
Yes	14%	[7%-25%]	20%	[18%-22%]



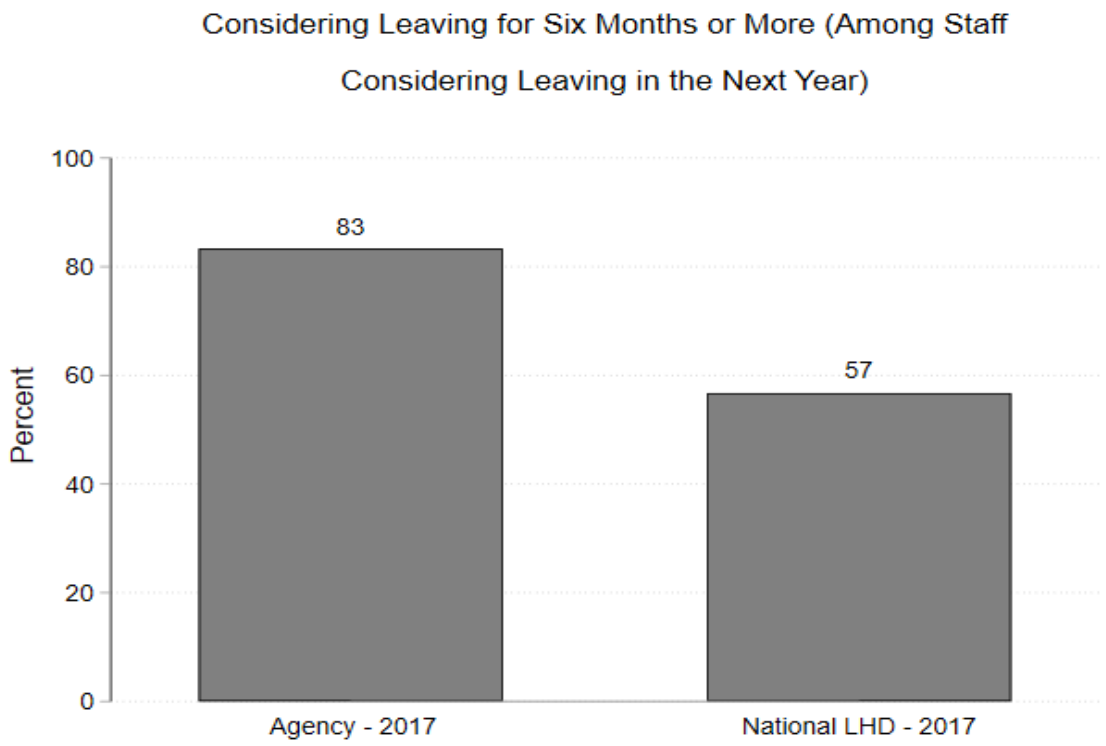
Percent of Staff Planning To Retire Within Five Years

Overall	Agency - 2017		National LHD - 2017	
	Estimate	95% CI	Estimate	95% CI
No	81%	[69%-89%]	79%	[77%-81%]
Yes	19%	[11%-31%]	21%	[19%-23%]



Considering Leaving for Six Months or More (Among Staff Considering Leaving in the Next Year)

Overall	Agency - 2017		National LHD - 2017	
	Estimate	95% CI	Estimate	95% CI
No	17%	[4%-48%]	43%	[39%-48%]
Yes	83%	[52%-96%]	57%	[52%-61%]



Most Important Reasons for Leaving Organization Among Staff Considering Leaving in the Next Year

	Agency - 2017		National LHD - 2017	
	Estimate	95% CI	Estimate	95% CI
Lack of acknowledgement/recognition				
No	100%	[100%-100%]	80%	[76%-83%]
Yes	0%	[0%-0%]	20%	[17%-24%]
Job satisfaction				
No	92%	[59%-99%]	77%	[73%-81%]
Yes	8%	[1%-41%]	23%	[19%-27%]
Lack of opportunities for advancement				
No	92%	[59%-99%]	67%	[63%-71%]
Yes	8%	[1%-41%]	33%	[29%-37%]
Lack of training				
No	100%	[100%-100%]	92%	[90%-94%]
Yes	0%	[0%-0%]	8%	[6%-10%]
Leadership changeover				
No	100%	[100%-100%]	88%	[85%-91%]
Yes	0%	[0%-0%]	12%	[9%-15%]
Other opportunities outside agency				
No	100%	[100%-100%]	83%	[79%-87%]
Yes	0%	[0%-0%]	17%	[13%-21%]
Pay				
No	75%	[45%-92%]	58%	[53%-63%]
Yes	25%	[8%-55%]	42%	[37%-47%]
Retirement				
No	100%	[100%-100%]	98%	[96%-99%]
Yes	0%	[0%-0%]	2%	[1%-4%]
Satisfaction with your supervisor				
No	92%	[59%-99%]	81%	[77%-85%]
Yes	8%	[1%-41%]	19%	[15%-23%]
Stress				
No	92%	[59%-99%]	80%	[76%-83%]
Yes	8%	[1%-41%]	20%	[17%-24%]
Lack of flexibility (flex hours/telework)				
No	100%	[100%-100%]	90%	[87%-92%]
Yes	0%	[0%-0%]	10%	[8%-13%]
Weakening of benefits (e.g., retirement contributions/pensions, health insurance)				
No	92%	[59%-99%]	89%	[86%-92%]
Yes	8%	[1%-41%]	11%	[8%-14%]
Work overload / burnout				
No	83%	[52%-96%]	78%	[74%-82%]
Yes	17%	[4%-48%]	22%	[18%-26%]
Workplace environment				
No	83%	[52%-96%]	72%	[67%-76%]
Yes	17%	[4%-48%]	28%	[24%-33%]
Lack of support				
No	92%	[59%-99%]	78%	[74%-82%]
Yes	8%	[1%-41%]	22%	[18%-26%]
Other (Please specify)				
No	83%	[52%-96%]	79%	[74%-83%]
Yes	17%	[4%-48%]	21%	[17%-26%]

Training needs - Nonsupervisory Staff

	Agency - 2017		National LHD - 2017	
	Estimate	95% CI	Estimate	95% CI
Effectively target communications to different audiences				
Low Importance/Low Skill	2%	[0%-15%]	1%	[1%-2%]
Low Importance/High Skill	5%	[1%-17%]	2%	[1%-3%]
High Importance/Low Skill	31%	[19%-46%]	16%	[14%-19%]
High Importance/High Skill	62%	[47%-75%]	80%	[78%-83%]
Communicate in a way that persuades others to act				
Low Importance/Low Skill	5%	[1%-16%]	1%	[1%-2%]
Low Importance/High Skill	2%	[0%-14%]	1%	[1%-2%]
High Importance/Low Skill	18%	[9%-32%]	15%	[13%-17%]
High Importance/High Skill	75%	[60%-86%]	83%	[80%-85%]
Identify appropriate sources of data and information to assess the health of a community				
Low Importance/Low Skill	12%	[5%-28%]	5%	[4%-7%]
Low Importance/High Skill	0%	[0%-0%]	3%	[2%-4%]
High Importance/Low Skill	45%	[30%-62%]	30%	[27%-33%]
High Importance/High Skill	42%	[27%-60%]	62%	[59%-65%]
Collect valid data for use in decision making				
Low Importance/Low Skill	9%	[4%-22%]	2%	[1%-3%]
Low Importance/High Skill	2%	[0%-15%]	2%	[2%-3%]
High Importance/Low Skill	37%	[24%-52%]	19%	[16%-21%]
High Importance/High Skill	51%	[37%-66%]	77%	[75%-80%]
Identify evidence-based approaches to address public health issues				
Low Importance/Low Skill	8%	[3%-22%]	4%	[3%-5%]
Low Importance/High Skill	0%	[0%-0%]	3%	[2%-4%]
High Importance/Low Skill	49%	[33%-64%]	26%	[23%-28%]
High Importance/High Skill	43%	[28%-59%]	68%	[65%-71%]
Describe the value of a diverse public health workforce				
Low Importance/Low Skill	8%	[3%-22%]	4%	[3%-5%]
Low Importance/High Skill	5%	[1%-19%]	4%	[3%-6%]
High Importance/Low Skill	43%	[28%-59%]	21%	[19%-24%]
High Importance/High Skill	43%	[28%-59%]	71%	[68%-74%]
Support inclusion of health equity and social justice principles into planning for program and service delivery				
Low Importance/Low Skill	9%	[3%-25%]	5%	[4%-7%]
Low Importance/High Skill	0%	[0%-0%]	3%	[2%-4%]
High Importance/Low Skill	53%	[36%-69%]	30%	[27%-33%]
High Importance/High Skill	38%	[23%-55%]	62%	[58%-65%]
Deliver socially, culturally, and linguistically appropriate programs and customer service				
Low Importance/Low Skill	5%	[1%-18%]	2%	[1%-3%]
Low Importance/High Skill	0%	[0%-0%]	2%	[1%-2%]
High Importance/Low Skill	30%	[18%-46%]	20%	[18%-22%]
High Importance/High Skill	65%	[49%-78%]	77%	[74%-79%]
Describe financial analysis methods applicable to program and service delivery				
Low Importance/Low Skill	20%	[9%-38%]	16%	[13%-18%]
Low Importance/High Skill	0%	[0%-0%]	3%	[2%-5%]
High Importance/Low Skill	57%	[39%-73%]	49%	[45%-52%]
High Importance/High Skill	23%	[12%-42%]	33%	[29%-37%]
Describe how public health funding mechanisms support agency programs and services				
Low Importance/Low Skill	16%	[7%-32%]	10%	[9%-13%]
Low Importance/High Skill	0%	[0%-0%]	3%	[2%-5%]
High Importance/Low Skill	50%	[33%-67%]	47%	[44%-51%]
High Importance/High Skill	34%	[20%-52%]	39%	[36%-43%]
Describe the value of an agency business plan				
Low Importance/Low Skill	17%	[7%-38%]	14%	[11%-17%]
Low Importance/High Skill	0%	[0%-0%]	3%	[2%-4%]
High Importance/Low Skill	61%	[40%-78%]	49%	[45%-52%]
High Importance/High Skill	22%	[9%-43%]	35%	[31%-38%]
Describe the influence of internal changes on organizational practices				
Low Importance/Low Skill	13%	[5%-30%]	10%	[8%-12%]
Low Importance/High Skill	3%	[0%-20%]	3%	[2%-5%]
High Importance/Low Skill	58%	[40%-74%]	43%	[40%-46%]
High Importance/High Skill	26%	[13%-44%]	44%	[40%-47%]
Assess the external drivers in your environment that may influence your work				

Low Importance/Low Skill	9%	[3%-24%]	6%	[5%-8%]
Low Importance/High Skill	0%	[0%-0%]	2%	[1%-3%]
High Importance/Low Skill	41%	[26%-58%]	41%	[38%-44%]
High Importance/High Skill	50%	[34%-66%]	51%	[48%-54%]
Describe how social determinants of health impact the health of individuals, families, and the overall community				
Low Importance/Low Skill	3%	[0%-19%]	4%	[3%-5%]
Low Importance/High Skill	0%	[0%-0%]	2%	[1%-3%]
High Importance/Low Skill	58%	[40%-73%]	35%	[32%-39%]
High Importance/High Skill	39%	[24%-57%]	59%	[56%-62%]
Participate in quality improvement processes for agency programs and services				
Low Importance/Low Skill	8%	[2%-21%]	6%	[4%-7%]
Low Importance/High Skill	0%	[0%-0%]	2%	[2%-3%]
High Importance/Low Skill	60%	[44%-74%]	42%	[39%-45%]
High Importance/High Skill	33%	[20%-48%]	50%	[47%-54%]
Describe the value of community strategic planning that results in a community health assessment or community health improvement plan				
Low Importance/Low Skill	3%	[0%-20%]	8%	[6%-10%]
Low Importance/High Skill	0%	[0%-0%]	3%	[2%-5%]
High Importance/Low Skill	65%	[47%-79%]	45%	[42%-49%]
High Importance/High Skill	32%	[18%-50%]	44%	[40%-47%]
Describe your agency's strategic priorities, mission, and vision				
Low Importance/Low Skill	3%	[0%-16%]	3%	[2%-5%]
Low Importance/High Skill	5%	[1%-18%]	3%	[2%-4%]
High Importance/Low Skill	43%	[28%-58%]	34%	[31%-37%]
High Importance/High Skill	50%	[35%-65%]	60%	[57%-63%]
Describe the importance of engaging community members in the design and implementation of programs to improve health in a community				
Low Importance/Low Skill	5%	[1%-19%]	4%	[3%-5%]
Low Importance/High Skill	0%	[0%-0%]	2%	[1%-3%]
High Importance/Low Skill	59%	[43%-74%]	40%	[37%-43%]
High Importance/High Skill	35%	[22%-52%]	54%	[51%-57%]
Engage community assets and resources to improve health in a community				
Low Importance/Low Skill	3%	[0%-17%]	3%	[2%-4%]
Low Importance/High Skill	3%	[0%-17%]	3%	[2%-5%]
High Importance/Low Skill	58%	[42%-73%]	37%	[34%-41%]
High Importance/High Skill	36%	[22%-53%]	56%	[53%-60%]
Collaborate with public health personnel across the agency to improve the health of the community				
Low Importance/Low Skill	11%	[4%-26%]	3%	[2%-5%]
Low Importance/High Skill	0%	[0%-0%]	2%	[1%-3%]
High Importance/Low Skill	41%	[26%-57%]	31%	[28%-33%]
High Importance/High Skill	49%	[33%-64%]	64%	[61%-67%]
Describe your role in improving the health of the community served by the agency				
Low Importance/Low Skill	3%	[0%-16%]	1%	[1%-2%]
Low Importance/High Skill	3%	[0%-16%]	2%	[2%-4%]
High Importance/Low Skill	33%	[20%-49%]	21%	[19%-24%]
High Importance/High Skill	62%	[46%-75%]	75%	[72%-77%]

Training needs - Supervisor/Manager

	Agency - 2017		National LHD - 2017	
	Estimate	95% CI	Estimate	95% CI
Communicate in a way that different audiences can understand				
Low Importance/Low Skill	8%	[1%-39%]	1%	[0%-2%]
Low Importance/High Skill	0%	[0%-0%]	0%	[0%-2%]
High Importance/Low Skill	8%	[1%-39%]	13%	[10%-17%]
High Importance/High Skill	85%	[55%-96%]	86%	[82%-89%]
Communicate in a way that persuades others to act				
Low Importance/Low Skill	8%	[1%-39%]	0%	[0%-3%]
Low Importance/High Skill	0%	[0%-0%]	0%	[0%-2%]
High Importance/Low Skill	31%	[12%-59%]	16%	[13%-21%]
High Importance/High Skill	62%	[34%-83%]	83%	[78%-86%]
Identify appropriate sources of data and information to assess the health of a community				
Low Importance/Low Skill	9%	[1%-44%]	3%	[2%-5%]
Low Importance/High Skill	0%	[0%-0%]	1%	[1%-3%]
High Importance/Low Skill	64%	[34%-86%]	30%	[25%-36%]
High Importance/High Skill	27%	[9%-59%]	65%	[60%-70%]
Use valid data to drive decision making				
Low Importance/Low Skill	0%	[0%-0%]	0%	[0%-1%]
Low Importance/High Skill	0%	[0%-0%]	0%	[0%-2%]
High Importance/Low Skill	38%	[17%-66%]	19%	[15%-24%]
High Importance/High Skill	62%	[34%-83%]	80%	[75%-84%]
Apply evidence-based approaches to address public health issues				
Low Importance/Low Skill	8%	[1%-41%]	2%	[1%-5%]
Low Importance/High Skill	0%	[0%-0%]	1%	[0%-2%]
High Importance/Low Skill	67%	[38%-87%]	23%	[19%-28%]
High Importance/High Skill	25%	[8%-55%]	73%	[68%-78%]
Support development of a diverse public health workforce				
Low Importance/Low Skill	0%	[0%-0%]	4%	[2%-6%]
Low Importance/High Skill	0%	[0%-0%]	2%	[1%-4%]
High Importance/Low Skill	50%	[22%-78%]	23%	[19%-28%]
High Importance/High Skill	50%	[22%-78%]	71%	[66%-76%]
Incorporate health equity and social justice principles into planning for programs and services				
Low Importance/Low Skill	22%	[6%-58%]	4%	[3%-7%]
Low Importance/High Skill	0%	[0%-0%]	2%	[1%-5%]
High Importance/Low Skill	22%	[6%-58%]	34%	[29%-39%]
High Importance/High Skill	56%	[25%-82%]	60%	[54%-65%]
Implement socially, culturally, and linguistically appropriate policies, programs, and services that reflect the diversity of individuals and populations in a community				
Low Importance/Low Skill	0%	[0%-0%]	2%	[1%-4%]
Low Importance/High Skill	0%	[0%-0%]	2%	[1%-3%]
High Importance/Low Skill	36%	[14%-66%]	26%	[22%-31%]
High Importance/High Skill	64%	[34%-86%]	70%	[65%-75%]
Use financial analysis methods in managing programs and services				
Low Importance/Low Skill	0%	[0%-0%]	6%	[4%-8%]
Low Importance/High Skill	0%	[0%-0%]	2%	[1%-5%]
High Importance/Low Skill	67%	[38%-87%]	52%	[47%-58%]
High Importance/High Skill	33%	[13%-62%]	40%	[34%-45%]
Identify funding mechanisms and procedures to develop sustainable funding models for programs and services				
Low Importance/Low Skill	0%	[0%-0%]	6%	[4%-9%]
Low Importance/High Skill	0%	[0%-0%]	1%	[1%-3%]
High Importance/Low Skill	69%	[41%-88%]	52%	[46%-57%]
High Importance/High Skill	31%	[12%-59%]	41%	[36%-46%]
Implement a business plan for agency programs and services				
Low Importance/Low Skill	0%	[0%-0%]	5%	[4%-8%]
Low Importance/High Skill	0%	[0%-0%]	3%	[2%-6%]
High Importance/Low Skill	82%	[49%-95%]	51%	[45%-57%]
High Importance/High Skill	18%	[5%-51%]	41%	[35%-47%]
Modify programmatic practices in consideration of internal and external changes				
Low Importance/Low Skill	0%	[0%-0%]	3%	[2%-5%]
Low Importance/High Skill	0%	[0%-0%]	1%	[0%-2%]
High Importance/Low Skill	30%	[10%-62%]	36%	[31%-41%]
High Importance/High Skill	70%	[38%-90%]	60%	[55%-65%]
Assess the drivers in your environment that may influence public health programs and services				
Low Importance/Low Skill	9%	[1%-44%]	4%	[3%-7%]
Low Importance/High Skill	0%	[0%-0%]	1%	[0%-2%]
High Importance/Low Skill	73%	[41%-91%]	45%	[40%-51%]
High Importance/High Skill	18%	[5%-51%]	50%	[44%-55%]
Integrate current and projected trends into strategic planning for programs and services				
Low Importance/Low Skill	8%	[1%-41%]	5%	[3%-7%]
Low Importance/High Skill	0%	[0%-0%]	1%	[0%-1%]
High Importance/Low Skill	58%	[31%-82%]	44%	[38%-49%]
High Importance/High Skill	33%	[13%-62%]	51%	[46%-57%]
Build cross-sector partnerships to address social determinants of health				

Low Importance/Low Skill	0%	[0%-0%]	3%	[2%-6%]
Low Importance/High Skill	9%	[1%-44%]	2%	[1%-5%]
High Importance/Low Skill	27%	[9%-59%]	36%	[31%-42%]
High Importance/High Skill	64%	[34%-86%]	58%	[52%-63%]
Apply quality improvement processes to improve agency programs and services				
Low Importance/Low Skill	0%	[0%-0%]	2%	[1%-4%]
Low Importance/High Skill	0%	[0%-0%]	1%	[0%-1%]
High Importance/Low Skill	46%	[22%-72%]	38%	[33%-44%]
High Importance/High Skill	54%	[28%-78%]	59%	[54%-65%]
Apply findings from a community health assessment or community health improvement plan to agency programs and services				
Low Importance/Low Skill	9%	[1%-44%]	4%	[3%-7%]
Low Importance/High Skill	0%	[0%-0%]	2%	[1%-5%]
High Importance/Low Skill	55%	[27%-80%]	38%	[33%-44%]
High Importance/High Skill	36%	[14%-66%]	55%	[49%-60%]
Implement an organizational strategic plan				
Low Importance/Low Skill	0%	[0%-0%]	4%	[2%-6%]
Low Importance/High Skill	0%	[0%-0%]	3%	[1%-6%]
High Importance/Low Skill	42%	[18%-69%]	42%	[36%-47%]
High Importance/High Skill	58%	[31%-82%]	51%	[46%-57%]
Engage community members in the design and implementation of programs to improve health in a community				
Low Importance/Low Skill	10%	[1%-47%]	6%	[4%-9%]
Low Importance/High Skill	0%	[0%-0%]	2%	[1%-4%]
High Importance/Low Skill	70%	[38%-90%]	41%	[36%-47%]
High Importance/High Skill	20%	[5%-54%]	51%	[45%-57%]
Identify and engage assets and resources that can be used to improve health in a community				
Low Importance/Low Skill	0%	[0%-0%]	3%	[2%-5%]
Low Importance/High Skill	0%	[0%-0%]	1%	[0%-4%]
High Importance/Low Skill	60%	[30%-84%]	38%	[32%-43%]
High Importance/High Skill	40%	[16%-70%]	58%	[52%-64%]
Engage in collaborations within the public health system, including traditional and non-traditional partners, to improve the health of a community				
Low Importance/Low Skill	0%	[0%-0%]	3%	[2%-5%]
Low Importance/High Skill	0%	[0%-0%]	1%	[0%-2%]
High Importance/Low Skill	64%	[34%-86%]	33%	[28%-39%]
High Importance/High Skill	36%	[14%-66%]	63%	[57%-68%]
Assess how agency policies, programs, and services advance population health				
Low Importance/Low Skill	0%	[0%-0%]	5%	[3%-7%]
Low Importance/High Skill	0%	[0%-0%]	2%	[1%-5%]
High Importance/Low Skill	82%	[49%-95%]	41%	[36%-47%]
High Importance/High Skill	18%	[5%-51%]	52%	[47%-58%]

Motivations for seeking additional training

	Agency - 2017		National LHD - 2017	
	Estimate	95% CI	Estimate	95% CI
Maintenance of licensure				
No	60%	[47%-71%]	58%	[56%-61%]
Yes	40%	[29%-53%]	42%	[39%-44%]
Taken into account during performance reviews				
No	55%	[42%-67%]	66%	[64%-68%]
Yes	45%	[33%-58%]	34%	[32%-36%]
Requirement for promotion				
No	69%	[57%-80%]	59%	[57%-61%]
Yes	31%	[20%-43%]	41%	[39%-43%]
Peers were taking it				
No	84%	[73%-91%]	83%	[82%-85%]
Yes	16%	[9%-27%]	17%	[15%-18%]
Expectation from my supervisor				
No	48%	[36%-61%]	57%	[55%-60%]
Yes	52%	[39%-64%]	43%	[40%-45%]
Mandated by agency supervisor/management/leadership				
No	45%	[33%-58%]	52%	[50%-55%]
Yes	55%	[42%-67%]	48%	[45%-50%]
Covered time for training				
No	50%	[38%-62%]	45%	[43%-47%]
Yes	50%	[38%-62%]	55%	[53%-57%]
Paid travel for training				
No	52%	[39%-64%]	50%	[48%-53%]
Yes	48%	[36%-61%]	50%	[47%-52%]
Availability of applicable in-person training opportunities				
No	48%	[36%-61%]	45%	[43%-48%]
Yes	52%	[39%-64%]	55%	[52%-57%]
Availability of applicable online training opportunities				
No	58%	[46%-70%]	50%	[48%-52%]
Yes	42%	[30%-54%]	50%	[48%-52%]
Personal growth/interest				
No	21%	[13%-33%]	17%	[16%-19%]
Yes	79%	[67%-87%]	83%	[81%-84%]
None of the above				
No	100%	[100%-100%]	99%	[98%-99%]
Yes	0%	[0%-0%]	1%	[1%-2%]
Other				
No	100%	[100%-100%]	96%	[95%-97%]
Yes	0%	[0%-0%]	4%	[3%-5%]

Emerging Concepts in Public Health: Staff Awareness of Select Public Health Trends

	Agency - 2017		National LHD - 2017	
	Estimate	95% CI	Estimate	95% CI
Cross-jurisdictional sharing of public health services				
Nothing at all	23%	[14%-35%]	26%	[24%-28%]
Not much	24%	[15%-36%]	24%	[22%-25%]
A little	35%	[25%-48%]	33%	[31%-35%]
A lot	18%	[10%-29%]	17%	[16%-19%]
Fostering a culture of quality improvement (QI)				
Nothing at all	8%	[3%-18%]	17%	[15%-19%]
Not much	5%	[2%-14%]	15%	[13%-16%]
A little	13%	[7%-24%]	30%	[28%-32%]
A lot	74%	[62%-84%]	38%	[36%-41%]
Public health and primary care integration				
Nothing at all	16%	[9%-27%]	22%	[20%-24%]
Not much	21%	[13%-33%]	23%	[21%-25%]
A little	40%	[29%-53%]	33%	[31%-35%]
A lot	23%	[14%-35%]	23%	[21%-25%]
Evidence-Based Public Health Practice (EBPH)				
Nothing at all	10%	[4%-20%]	18%	[16%-20%]
Not much	11%	[5%-22%]	17%	[16%-19%]
A little	39%	[27%-51%]	32%	[30%-35%]
A lot	40%	[29%-53%]	32%	[30%-34%]
Health in All Policies (HiAP)				
Nothing at all	38%	[27%-50%]	39%	[37%-41%]
Not much	25%	[15%-37%]	24%	[22%-26%]
A little	26%	[17%-39%]	23%	[21%-25%]
A lot	11%	[6%-22%]	13%	[12%-15%]
Multi-sectoral collaboration				
Nothing at all	23%	[14%-35%]	31%	[29%-33%]
Not much	18%	[10%-29%]	23%	[21%-25%]
A little	35%	[25%-48%]	28%	[26%-30%]
A lot	24%	[15%-36%]	18%	[16%-20%]

Staff perceptions about how much agency should be involved in:

	Agency - 2017		National LHD - 2017	
	Estimate	95% CI	Estimate	95% CI
Affecting the K-12 education system in your jurisdiction?				
Not at all involved	8%	[3%-18%]	13%	[11%-14%]
Not very involved	5%	[2%-14%]	18%	[16%-19%]
Somewhat involved	52%	[39%-64%]	41%	[39%-43%]
Very involved	35%	[25%-48%]	29%	[27%-31%]
Affecting the economy in your jurisdiction?				
Not at all involved	13%	[7%-24%]	14%	[13%-16%]
Not very involved	20%	[12%-32%]	27%	[25%-29%]
Somewhat involved	49%	[37%-62%]	40%	[38%-43%]
Very involved	18%	[10%-30%]	19%	[17%-20%]
Affecting the built environment (roads, parks, greenways, walking and biking trails) in your jurisdiction?				
Not at all involved	10%	[4%-20%]	17%	[15%-19%]
Not very involved	25%	[15%-37%]	20%	[19%-22%]
Somewhat involved	38%	[27%-50%]	37%	[34%-39%]
Very involved	28%	[18%-40%]	26%	[24%-28%]
Affecting the quality of housing in your jurisdiction?				
Not at all involved	13%	[7%-24%]	14%	[13%-16%]
Not very involved	11%	[5%-22%]	19%	[18%-21%]
Somewhat involved	42%	[30%-54%]	41%	[39%-43%]
Very involved	34%	[23%-46%]	25%	[23%-27%]
Affecting the quality of transportation in your jurisdiction?				
Not at all involved	15%	[8%-26%]	18%	[16%-19%]
Not very involved	24%	[15%-36%]	24%	[22%-26%]
Somewhat involved	40%	[29%-53%]	38%	[36%-41%]
Very involved	21%	[13%-33%]	20%	[19%-22%]
Affecting the quality of social support systems for individuals in your jurisdiction?				
Not at all involved	6%	[2%-16%]	8%	[7%-9%]
Not very involved	3%	[1%-12%]	11%	[10%-13%]
Somewhat involved	45%	[33%-58%]	41%	[39%-44%]
Very involved	45%	[33%-58%]	39%	[37%-41%]
Affecting health equity in your jurisdiction?				
Not at all involved	10%	[4%-20%]	5%	[4%-7%]
Not very involved	0%	[0%-0%]	5%	[4%-6%]
Somewhat involved	29%	[19%-41%]	28%	[26%-30%]
Very involved	61%	[49%-73%]	61%	[59%-64%]

Staff demographics

	Agency - 2017		National LHD - 2017	
	Estimate	95% CI	Estimate	95% CI
Supervisory Status				
Non-supervisor	76%	[64%-85%]	74%	[72%-76%]
Supervisor	13%	[7%-24%]	15%	[13%-17%]
Manager	8%	[3%-18%]	7%	[6%-8%]
Executive	3%	[1%-12%]	3%	[3%-4%]
Tenure at the agency				
0-5 years	30%	[20%-43%]	42%	[40%-45%]
6-10 years	20%	[12%-32%]	17%	[15%-19%]
11-15 years	23%	[14%-36%]	14%	[13%-16%]
16-20 years	13%	[7%-24%]	11%	[10%-13%]
21 or above	13%	[7%-24%]	15%	[14%-17%]
Tenure in current position				
0-5 years	57%	[45%-69%]	61%	[59%-64%]
6-10 years	21%	[13%-33%]	16%	[15%-18%]
11-15 years	11%	[6%-22%]	9%	[8%-11%]
16-20 years	8%	[3%-18%]	7%	[6%-8%]
21 or above	2%	[0%-11%]	7%	[6%-8%]
Tenure in public health practice				
0-5 years	22%	[13%-34%]	33%	[31%-35%]
6-10 years	20%	[12%-32%]	17%	[16%-19%]
11-15 years	28%	[18%-41%]	15%	[14%-17%]
16-20 years	12%	[6%-23%]	13%	[11%-15%]
21 or above	18%	[10%-30%]	22%	[20%-24%]
Highest Degree				
No college degree	29%	[19%-42%]	20%	[18%-22%]
Associates	22%	[13%-34%]	18%	[16%-20%]
Bachelors	44%	[32%-57%]	40%	[38%-43%]
Masters	5%	[2%-15%]	19%	[18%-21%]
Doctoral	0%	[0%-0%]	2%	[2%-3%]
Age in years				
21-30	23%	[14%-35%]	14%	[12%-15%]
31-40	11%	[6%-22%]	22%	[20%-24%]
41-50	33%	[22%-45%]	24%	[22%-26%]
51-60	30%	[19%-42%]	27%	[25%-29%]
61+	3%	[1%-12%]	13%	[11%-14%]
Occupational Classification				
Administrative	35%	[25%-48%]	33%	[31%-36%]
Clinical and Lab	34%	[23%-46%]	28%	[26%-30%]
Public Health Sciences	31%	[20%-43%]	32%	[30%-34%]
Social Services and All Other	0%	[0%-0%]	7%	[6%-8%]
Program Area				
Chronic Disease & Injury	3%	[1%-12%]	4%	[4%-6%]
Communicable Disease	2%	[0%-11%]	5%	[4%-7%]
Environmental Health	10%	[4%-20%]	15%	[13%-16%]

Maternal and Child Health	26%	[16%-38%]	13%	[12%-15%]
Other Health Care	18%	[10%-29%]	10%	[9%-11%]
All Hazards	2%	[0%-11%]	2%	[1%-2%]
Assessment	3%	[1%-12%]	4%	[4%-6%]
Communications	8%	[3%-18%]	7%	[5%-8%]
Organizational Competencies	13%	[7%-24%]	12%	[10%-13%]
Other	16%	[9%-27%]	28%	[26%-30%]

APPENDIX E

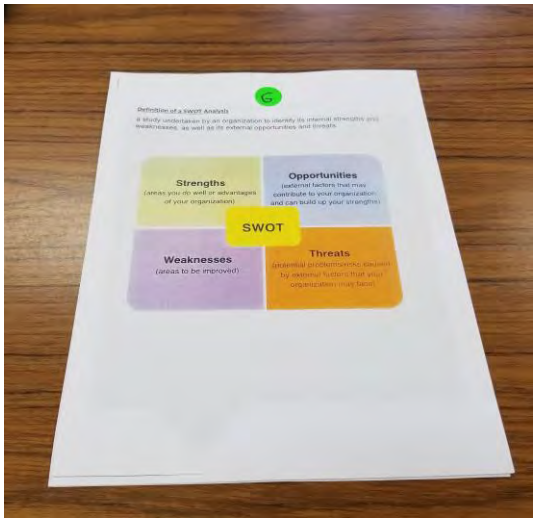
Summary of TCHD Strategic Planning Activities 2019:

05/22/2019:

TCHD Staff's input on Mission, Vision and Values along with a SWOT analysis:

Strategic planning began at the Annual All Staff Training Day. Our 70 staff members broke into 7 smaller groups, with the guidance from the Administrator, to review the Mission, Vision, and Values and bring forward any potential changes—each team had to sign off on the document. Some suggestions in changes to the Mission, Vision, and Values are as follows:

- Values—look at "advocate"
- Change wording in Service to "Understanding and meeting public health needs through (instead of with) creativity and commitment"
- Add wording at the end to Collaboration to "Communicating and working together for the overall good of the public both internally and externally"



Groups were also given instructions to go through a SWOT analysis documenting those thoughts/ideas on the hand-outs they were provided. The following is the lists brought forward in all 4 areas from staff:

Strengths	Weaknesses
▪ Knowledgeable staff***	▪ Dental Center safety/security**
▪ Positive working environment	▪ More equipment to improve our efficient (Technology)
▪ Nationally Accredited***	▪ Stress load on staff—staff needs an outlet (Employee wellness/Worksite wellness)
▪ Access to & Utilization of data (Taylor)**	▪ Internal storage space
▪ Good internet service	▪ Physical space (need more)
▪ IT Programs	▪ Lack of mental health staff
▪ Variety of programs	▪ Ergonomics (uncomfortable chairs in meeting areas)
▪ Client resources	▪ Voicemail and phone tree are complex and confusing to public
▪ Committed Staff	▪ Paging system doesn't work in EH
▪ Team work***	▪ Dental services provided off-site (separation of staff)
▪ Leader in public health	▪ Employee turnover—training (time and resources)**
▪ Dedicated staff/committed, ethical staff***	▪ Location, transportation, client accessibility*****
▪ Experienced staff**	▪ Staff size (lack of staff per program)***
▪ Organization	▪ More w/ less
▪ Comprehensive Public Health Services	▪ Funding/Sustainability**
▪ Innovative programs	▪ Technology/internet***
▪ A culture of compassion	▪ Copy Machine
▪ Centrally located	▪ Folding Machine
▪ Family oriented	▪ Succession planning
▪ Pot lucks	▪ Loss of institutional knowledge
▪ Dental center	▪ Communication***
▪ Diabetes prevention program	o Within divisions and between divisions
▪ Lactation consultants	▪ Limited hours for working people
▪ Epidemiologist	▪ Siloing of departments
▪ Leadership	▪ Message of availability of services to the community
▪ Tuition reimbursement***	▪ Limited staffing—Emergencies—EH, School, FCM
▪ Provide resources	▪ Accessibility of the EH building—ADA
▪ Walk in clinic hours	▪ Phone reliability
▪ Home visits with nurses	▪ Copier/printer/fax reliability is our equipment sustainable
▪ Assist public with needs	▪ Opportunity to excel
▪ Bilingual staff/Language Line	▪ Lack of cross training
▪ Customer service	▪ Facility accommodations
▪ Good atmosphere—coworkers	▪ Safety/safety training
▪ Free parking	▪ Internal training for staff
▪ One stop shop	▪ Orientation of new staff
▪ Nice facility	▪ Maintenance attention (dental)
▪ Safety-mag locks at doors, can walk around campus	
▪ Collaborate with community agencies/partners**	
▪ Days off	
▪ IMRF	
▪ Supportive of staff during crisis	
▪ Educating our community	
▪ Using resources	
▪ Providing referrals	
▪ Forward thinking, beyond daily programming	

- Coordination/collaboration between dept.**
- Succession plan—new management, fresh ideas, new eyes to review policy and planning
- PIO group, social media
- Flexibility
- Supportive management and BOH
- Quality improvement (continual)
- Professional development/well-trained staff
- Multiple staff members on State/National Leadership groups
- Good communication to clients
- Monthly all-staff meetings provide education to staff about all divisions
- Staff has input/participates in strategic planning and procedures/program development
- Cross-training—staff prepared to provide a wide variety of services
- Always looking for opportunities to reduce waste/improve efficiency
- Willingness to improve and change policies/procedures
- Professional staff
- Good Leadership
- Recognition of accomplishments
- Work in a safe facility
- Willingness of management to listen to staff
- Grab & Go (fruits and vegetables) available to staff
- Training and education TCHD Provides

- Staff educations offered during work hours
- Following Procedures
- George and Admin Drive—needs clean up

Opportunities

- Funding***
- Funding outside of our normal avenue
- Partnerships
- Advertising
- Better highway signs
- Tri County Work Groups**
- Enhanced Technology
- Community-Based—in the community
- Bus route closer to the building
- Nurse practitioner/higher reimbursement rate & expand service offered**
- Staff Education
- Grants
- Community partners—expanding**
- The new website—opens up program opportunities**
- Additional off sites
- Broadest availability of services
- Education for staff on emerging trends from local partners

Threats

- State & federal funding*****
- Politics
- Lack of public education
- Accessibility (location)**
- The state of Illinois Government**
- Transportation***
- Duplication of services
- Stigma of using public health services
- Active shooters/intruders
- Private entities
- Competition
- Lack of healthcare/inequity
- Loss of trust/stigma with government/public assistance
- Lack of behavioral health
- Hazardous situations—anthrax, measles, weather, etc.
- Safety at sites we visit—homes, restaurants
- Emerging social issues (legalization of marijuana)

▪ Expanding relationships w/key stakeholders ex) Hopechest works w/homeless—may be able to coordinate and reach vulnerable populations ▪ More offsite clinic dates ▪ Collaboration grants ▪ Established families/networking ▪ Coordinating programmatic efforts, recreating programs already established programs at outside agencies ▪ Consistent messaging w/tri-county health departments ▪ Community partnerships and action teams (AOK) ▪ Strategic plan (CHIP) & (CHNA) ▪ Small non-gov't funding opportunities (increased) ▪ Collaboration/networking with other agencies & community partners ▪ New Data website ▪ Bring in APN's, mental health providers (help increase revenues) ▪ Outreach—promotion of TCHD programs and services	▪ Public misinformation ▪ Social media/networks ▪ Competitive programs within communities ▪ Grant deliverables change ▪ Communication with state partners ▪ GATA—entire organization affected by single program findings ▪ Grants are more competitive ▪ Perception—community ▪ Social media (miscommunications) ▪ Security/safety at the Dental Center ▪ Funding/expenses—staffing adequacy—technology/maintenance ▪ Understaffed across the board ▪ Duplication of services from hospitals/larger providers w/more funding ▪ Public awareness of TCHD programs/services

*indicate the number of times that particular thought/idea was written

6/24/2019

BOH meeting requesting input on TCHD Mission, Vision, and Values and SWOT analysis:

Board meeting minutes: "Administrator Fox pointed members to page 205. SWOT is strengths, weaknesses, opportunities and threats. Our new plan will need to be in play in 2020. Staff have been involved in providing their input for the SWOT. Strengths and weaknesses are both internal and opportunities and threats are external. Members were asked to review this document, provide additional input or star areas where they agree. Members were provided a paper copy to work on and bring back to the next meeting in July. Work is being done to create a committee to complete the process for the Strategic plan where goals can be created as a result of the data and input provided. We would love to have BOH representation on the committee if anyone is interested. Let President Burton know if you have an interest."

7/22/2019

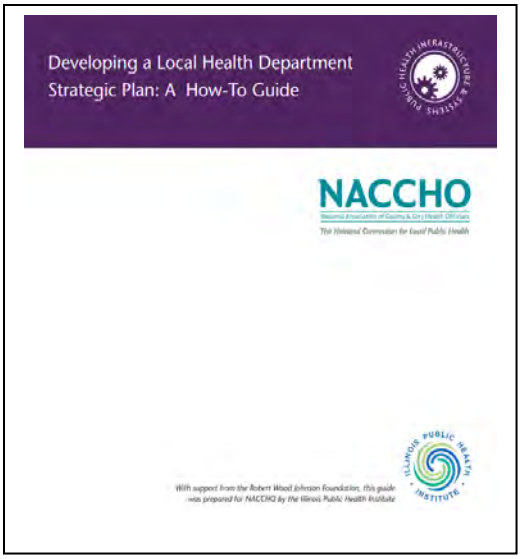
BOH meeting discussed of SWOT:

Board meeting minutes: "Administrator Fox explained the Strengths, Weaknesses, Opportunities and Threats that were sent home with members last month to give the opportunity to provide input. Members agreed it was a thorough list both there were also contradictory statements that would appear in multiple areas. It was explained that the list has not been agreed upon and that further work will be done with the comments to further develop the responses and get clarification. This is the hardest part of the strategic plan process since a lot of the items are opinions. The committee will look

at this and all the other data points to develop the plan. This is just one area of data collected. BOH is given the opportunity to contribute to the list. Members asked questions related to the list and clarification was provided."

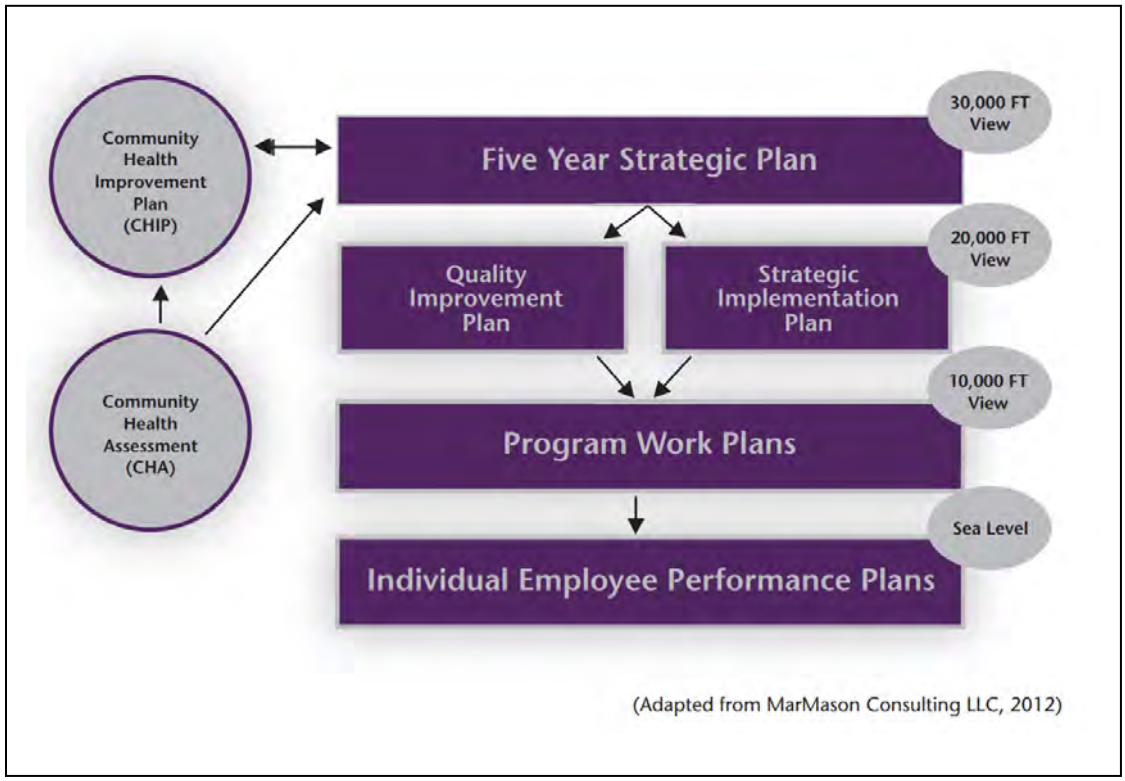
8/20/2019

Strategic Planning Committee met:



The committee is made up of staff from every division (EH, Clinic, Birth to 5, Business Operations, Community Health, and Office of Planning) and every level (administration, directors, supervisors, and program staff)—Present at the meeting: Amy Fox, Karla Burress, Erica Mutchler, Julie Herzog, Amanda Brown, Stacie Ealey, Ashley Purdy, Kris Wertz and Taylor Eisele. Absent from this meeting Jim Golianis and Angie Phillips. Amy reviewed the purpose of a Strategic Plan and pointed to information within the how to guide pictured to the right.

Amy stated that the current strategic plan was written in 2016 and finalized in the spring of 2017 with work beginning 7/1/2017 to go along with the workplans with each division. Amy reviewed this year's progress report on where we are it with meeting the goals/strategies outlined within the plan (Karla will send the report out to staff later this week). This current strategic plan will continue until 6/30/2020 and 7/1/2020 is when this new plan the committee is working on will become a part of our departments work plans and individual staff job duties/stretch assignments. Amy reviewed the following graph from the "How-To Guide" to show staff how it all works together:



Amy stated that there were minor suggestions made by staff for the TCHD Mission, Vision, and Values so this piece of the strategic plan is pretty much complete. She stated that the SWOT analysis by staff was presented to the BOH and that we have asked for their input as well. Now in addition to the SWOT analysis, this committee needs to look at other data sources as well. The committee decided to work on reviewing these data sources in small groups/pairs on their own and then bring the information back to the committee for discussion at the next meeting. Teams were scheduled as follows: Julie/Kris—CHNA; Angie/Amanda—Technology Survey and WFD; Erica/Stacie—IYS, PHWINS, and Employee Satisfaction Survey; and Ashley/Taylor/Jim—Data Site and System Assessment. The committee will continue their work on the strategic plan according to the schedule below:

Month/Date/Time	
9/10/2019 (2-3:30)	Committee meeting
9/24/2019 (2-3:30)	Committee meeting
October	Provide information to staff/BOH for input
11/5/2019 (2-3:30)	Committee meeting
11/19/2019 (2-3:30)	Committee meeting
December	Provide information to staff/BOH for input
1/7/2020 (2-3:30)	Committee meeting
1/21/2020	Committee meeting

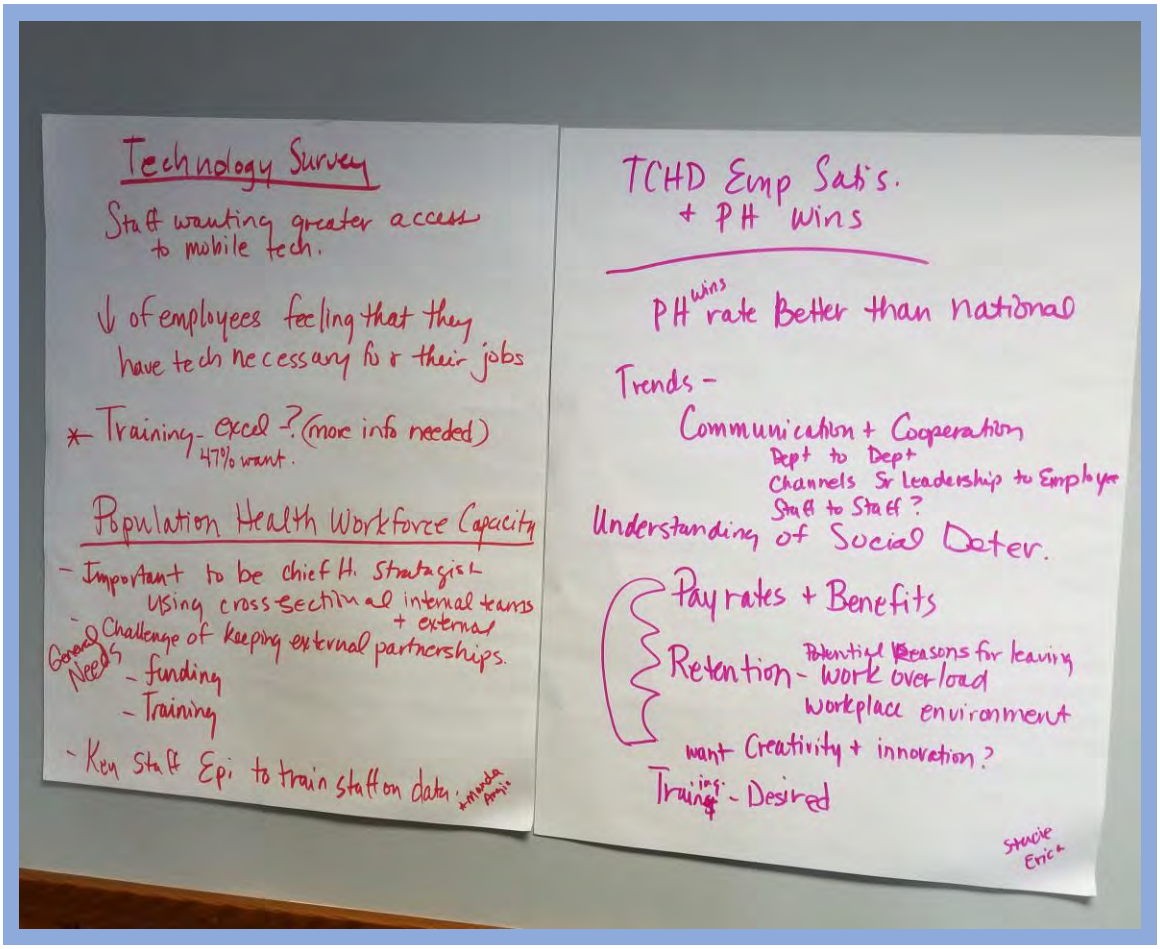
9/10/2019

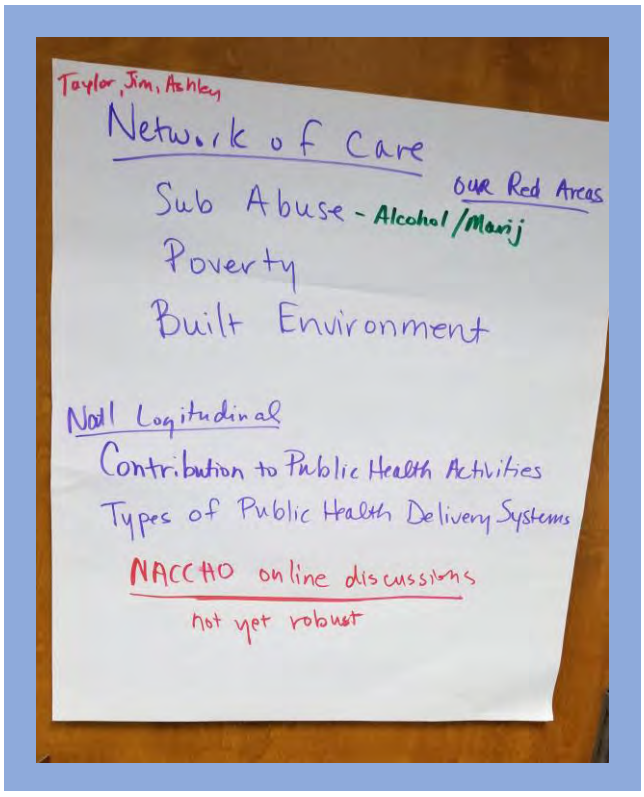
Strategic Planning Committee met:

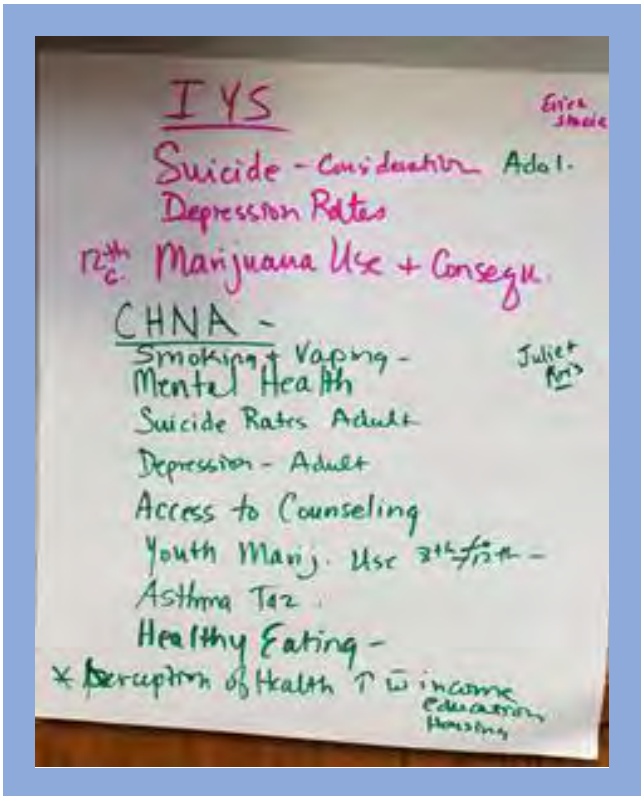
Amy started off the meeting by showing a short video to explain the 4 steps of the strategic planning process: https://www.youtube.com/watch?v=jVRIWeZP52k

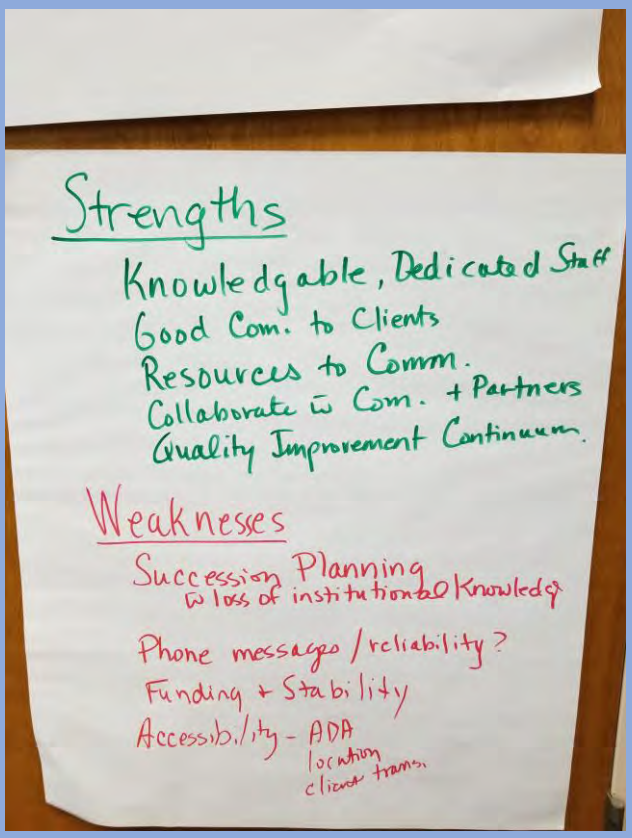
1. Analysis of the current state (includes a SWOT)
2. Defining the future state (Vision/Mission)
3. Determination of objectives/strategies
4. Implementation/Evaluation

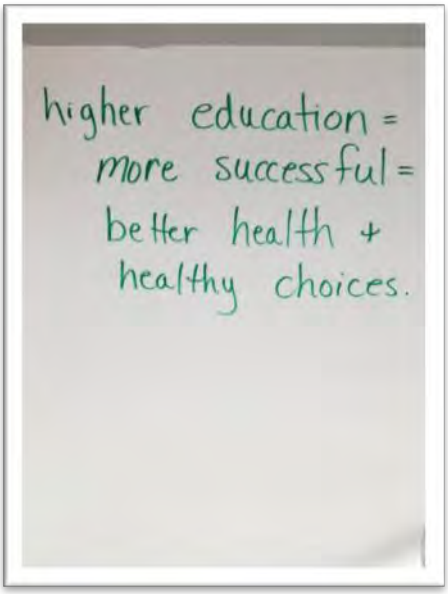
In completing the SWOT and now reviewing the different data sets, we are analyzing the current state. We have also defined the future state by vetting our current Vision/Mission with only some minor changes. The committee spent the rest of the meeting reviewing the data and identified the following areas:

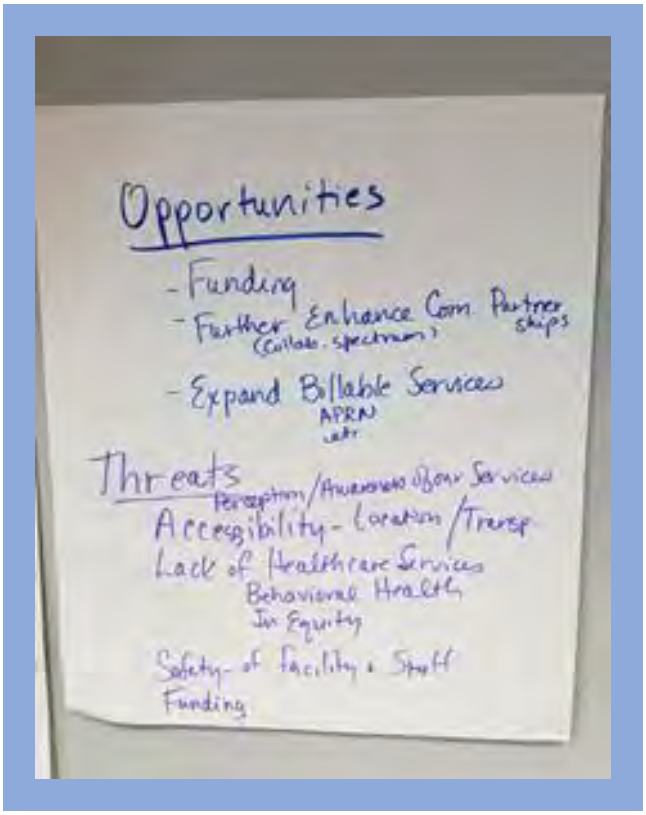

Technology Survey
Staff wanting greater access to mobile tech.
↓ of employees feeling that they have tech necessary for their jobs
* Training- excel ?(more info needed) 47% want.
Population Health Workforce Capacity
- Important to be chief H. Strategist using cross-sectional internal teams + external
- Challenge of keeping external partnerships.
Broad Needs
- funding
- Training
- Key Staff Epi to train staff on data
TCHD Emp Sat's. + PH Wins
PH wins rate Better than national
Trends -
Communication + Cooperation
Dept to Dept
Channels Sr Leadership to Employee
Staff to Staff ?
Understanding of Social Deter.
Pay rates + Benefits
Retention - Potential Reasons for leaving
Work overload
workplace environment
want Creativity + innovation?
Training - Desired
Stacie
Erica


Taylor, Jim, Ashley
Network of Care
Our Red Areas
Sub Abuse - Alcohol /Marij
Poverty
Built Environment
Natl Logitudinal
Contribution to Public Health Activities
Types of Public Health Delivery Systems
NACCHO online discussions
not yet robust


IYS
Erica Stacie
Suicide - Consideration Adol.
Depression Rates
12th c. Marijuana Use + Consequ.
CHNA -
Smoking + Vaping -
Mental Health
Juliet
Suicide Rates Adult
Depression - Adult
Access to Counseling
Youth Marij. Use
Asthma Taz
Healthy Eating -
* Perception of Health ↑ w/ income
Education
Housing







Within the next two weeks, the committee members will review this information and look for "themes" throughout; choosing 3-4 areas (buckets) to put forward at the next meeting where we will begin to discuss strategies and objectives. Amy showed the committee the following video https://www.youtube.com/watch?v=xYeAmafTGCA

which depicts the "working upstream analogy for prevention and public health".

The committee will reconvene 9/24/2019.

9/24/2019

Strategic Planning Committee Met:

Each member summarized the work that was completed in the last meeting into 3-5 themed "buckets". There was much discussion about the titles of the "buckets" and how some items ended up under more that just one theme. Ultimately the team decided upon the following 3 themed "buckets":

- BUCKET #1—Population Health Focus
  - Understanding of Social Determinants of Health
  - Data Collection
  - Poverty
  - Built Environment
  - Housing
  - Education
  - Leading our Community with Data
  - Communication to the Community about Public Health
  - Building our Data Site "Network of Care"
  - Utilize Data Internally
  - Program Planning
  - Epidemiology

- BUCKET #2 Communication and Cooperation
  - Interdivisional Communication and Cooperation
  - Communication from Administration (Amy and Karla) to Staff
  - Staff to Staff Communication and Cooperation
  - Staff's Perception of Public Health Services
  - Client and Community Partner Communication
  - Partnerships and Collaboration
  - Data Site (Network of Care) to inform the Community
  - Perception of Public Health in the Community
  - Awareness of our Services in the Community

- BUCKET #3 Stability of Agency and Workforce
  - Interdivisional Communication and Cooperation
  - Communication from Administration (Amy and Karla) to Staff
  - Staff to Staff Communication and Cooperation
  - Staff's Perception of Public Health Services
  - Client and Community Partner Communication
  - Partnerships and Collaboration
  - Data Site (Network of Care) to inform the Community
  - Perception of Public Health in the Community
  - Awareness of our Services in the Community

In November, these Buckets will be sent out to staff and the Board of Health for their input with the following ask:

"Staff and Board-

The Strategic Planning Committee have worked hard over the last month to read and select key points for improvement from all documents and data sources we have about TCHD.

These documents included surveys responded to by staff and our Board of Health such as: Employee Satisfaction Survey, Technology Survey, and SWOT analysis information.

Other information from the Public Health WINS National survey of Health Departments, our community health needs assessment and other local and national data were considered.

Three major areas have been identified as "Buckets" of concern.

1. Population Health
2. Communication and Cooperation
3. Stability for our Agency and Workforce

Please find attached each of the three areas with words that are related beneath. We are asking staff to choose their top three concerns/ gaps under each of the "Buckets". Please focus on areas you feel need to be addressed to build TCHD to be a better agency for our staff and community.

Please mark next to the chosen area with an **X.** Each Bucket gets three votes. Your representative will collect your department's votes and bring them back to the Strategic Planning Committee for next steps."

Homework for the team for the month of November is to read the Public Health 3.0 White Paper.

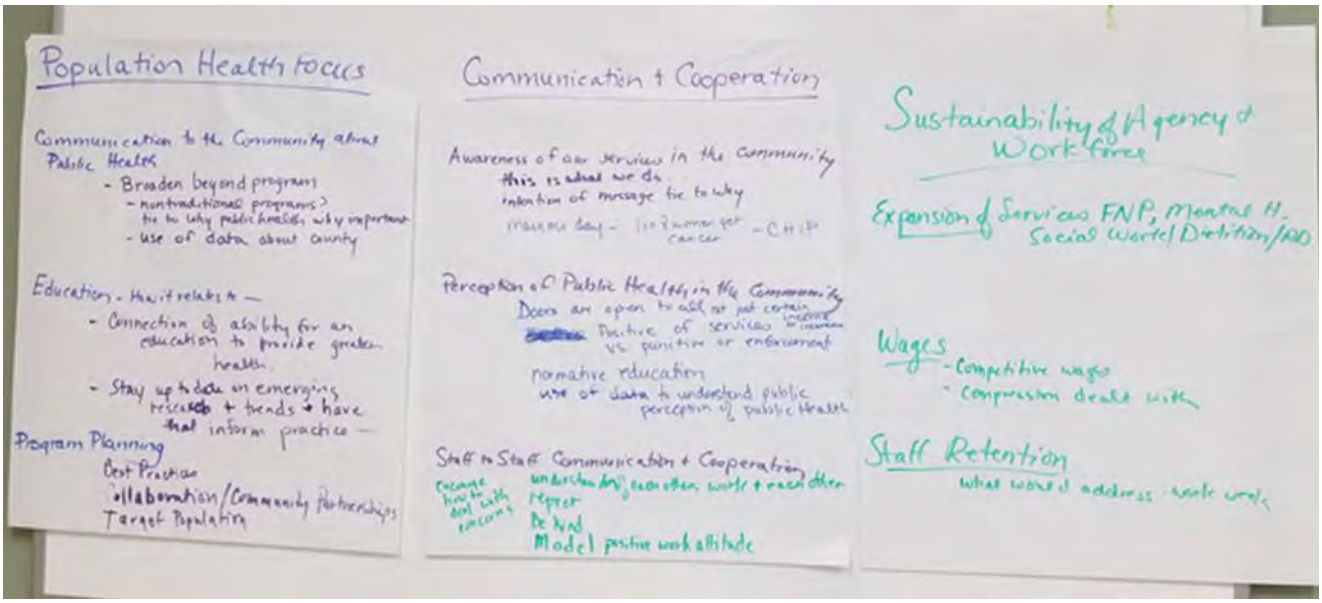
11/19/2019

Strategic Planning Committee met:

The committee discussed the results of the staff and BOH voting for their top three concerns/ gaps under each of the "Buckets". Results were as follows:

- BUCKET #1—Population Health Focus
    - Communication to the community about Public Health
    - Education
    - Program Planning
- BUCKET #2 Communication and Cooperation
    - Awareness of our services in the community
    - Perception of Public Health in the community
    - Staff to staff communication and cooperation
- BUCKET #3 Stability of Agency and Workforce
    - Expansion of services FNP, Mental health social work, Dietitian/RD
    - Wages
    - Staff Retention

The committee further discussed each of the top three concerns/gaps outlining some potential strategies. See picture below:



1/7/2020, 1/21/20 and 1/29/2020

Strategic Planning Committee met:

Amy stated that she and Stacie are currently in the process of writing the plan and are 8 pages in. Amy passed the beginning of the draft around the room.

Amy brought forward the Public Health Code of ethics for discussion and stated that we need to consider this and have some work in this area as well.

Outside of Amy's office door- (they were previously in the auditorium) were the proposed areas for our next strategic plan. She asked staff to "Please take a minute to look the Information over and if you have feedback please give it to me or to your depts. Representative to the strategic planning committee by January 6th. Our next meeting is on the 7th. At that time, we will refine goal statements and strategies and begin to write a workplan."

The committee began to develop the workplan for each of the goal areas over these three meetings. The work that came from these meetings is represented in the Goals and Objectives section of the strategic plan.

APPENDIX F

Tazewell County Health Department

Strategic Plan

Summary of Progress

Karla Burress

2017-2020

The purpose of the Tazewell County Health Department Strategic Plan is to:

- ✓ Clearly establish Tazewell County Health Department's future path as it aligns with our Mission and identified goals, strategies and objectives.
- ✓ Provide an outline of our goals, strategies, and objectives so that they can be clearly communicated to our staff, Board of Health, partners, community members, and stakeholders.
- ✓ Provide a framework for strategic resource allocation
- ✓ Provide a base for systematically assessing our organizations efficiency and effectiveness so that progress can be measured and informed change can be made when necessary

This report will summarize the progress that Tazewell County Health Department has made in completing the outlined objectives within the 2017-2020 strategic plan and a description of the overall change/effect the work has had toward fulfilling TCHD's mission and vision. The following color rubric will be used to indicate the goals status.

Goal 1: Finance

Strategy	Objective	2018	2019	2020
Funding **1) By 2020, activate three new income streams for TCHD to assist with stabilization of revenue for services to Tazewell County Residents**	A) By 12/2017, develop and implement an action team to ensure funding opportunities have the maximum chance of success through advancing staff knowledge and abilities	Not Started	Not Started	Not completed
	B) By 12/2018, and annually thereafter, increase the number of RFP's submitted by 10% of the base.	Had 3 additional RFP's funded in Community Health—SAP, Bilingual Health Educator for IBCCP, S3 program in EP. Clinic added FIT testing as an additional revenue source. Birth to 5 received an IDOT grant and hopes to increase dental varnishing revenue with the offsite WIC clinic being in Head Start now.	Had 3 additional RFP's funded this year: ISPAN, Ending Hunger Together, and Overdose Surveillance and Response. This is a 10% increase of the base of 27.	Had additional RFP's funded this year: First Book, Asian Health Coalition grant; And our APRN began providing services. We also implemented 3rd party billing for STD services.
	C) Annually provide ongoing tracking of TCHD performance and community data for use in applications and support of funding proposals. Data of ongoing performance will be communicated through the Community Health Dashboard	New Epidemiologists has been hired and has just started to work on this objective.	Epidemiologist created and maintains a performance management dashboard which tracks TCHD performance and worked with outside vendor to develop a data site to be used both internally and externally to support funding proposals.	100% complete

Strategy	Objective	2018	2019	2020
2) Annually review and modify the WFD, QI, and PM plans to ensure funds and training are adequate for grants and department needs	A) Quarterly, throughout this plan, there will be an ongoing monitoring of QI and PM efforts of staff and programs.	Quarterly Reports for QI and PM are reviewed by both Directors of those programs and by Administration.	Quarterly Reports for QI and PM are reviewed by both Directors of those programs and by Administration. Solutions are provided as needs are outlined within these quarterly reports.	Complete and ongoing
	B) A forecasting tool will be developed and implemented to track the trajectory of TCHD resources both human and financial by 12/2019	Tool was developed but did not fulfil the objectives that were outlined by administration.	Postponed--No additional work was done on this objective during this year. Since MIP (accounting software) has been purchased by the county and implementation should begin next year, we will research to see if there is a mechanism within this software that will provide us with this forecasting tool	No additional work done.
	C) Directors and Business Operations staff will meet monthly to monitor grant funds and to discuss potential shortfalls in funding	Directors and Business Operations along with Administration meet monthly to monitor grant funds.	Directors and Business Operations along with Administration meet monthly to monitor grant funds.	Complete and ongoing
Business Operations of TCHD **1) Maximize current financial resources by achieving 100% of available dollars annually**	A) Billing services to expand and continue, as a high-quality system for income generation and accountability to services provided.	The billing coordinator is consistently scanning billable services to ensure that TCHD is being paid for all services administered in addition to looking for ways to generate additional income.	The billing coordinator, Clinic director, and Administration continue to research ways in which TCHD could increase services that we bill for that would also fill a gap of service identified within the community (i.e.: having a nurse practitioner come on board would help ensure	Complete and ongoing

			that our IBCCP women have a provider and would allow us to bill for services we provide such as feeding assessments on babies. We will continue to pursue this in the upcoming year)	
	B) Verify grant monitoring assessment letters annually to ensure performance measures are met and that any corrective action plans are progressing.	Grants manager has set up a SharePoint site that stores audit related documentation such as assessment letters, approval letters, corrective action plans, corrective action plan responses etc. Agenda items on the 4th Monday Budget meetings with Directors includes discussion about performance measures and corrective action plans. This process continues to be developed.	No additions from last year's work.	No formal monitoring system was established

Goal 2: Communication

Strategy	Objectives	2018	2019	2020
Staff **1) Increase by 5% (2016 ratings) amongst all levels of TCHD staff satisfaction in communication/cooperation and channels to/from management by 12/31/19,**		No increase this year--The employee satisfaction for 2018 revealed a .05 decrease in satisfaction of communication. "The communication channels in TCHD are effective and	Small/not statistically significant increase this year—The employee satisfaction for 2019 revealed a .05 increase in satisfaction of communication (3.55). We will continue work in this	Employee Satisfaction survey was not administered this year due to the COVID19 response that TCHD has been leading since March 2020 and ongoing. This communication goal has

as assessed in the annual employee satisfaction survey		accurate" in 2016 it was 3.55 and in 2018 it is 3.50. We continue to work on this area—we provide a quarterly informational newsletter; a weekly department update that discusses work within the divisions; monthly staff rap keeping staff informed of updates from divisions, county, and BOH. We will continue to work on this area—each director is evaluated on this as part of their job duties.	area with the areas outlined in the 2018 update. We certainly have not increased by 5% but we continue to work with staff to find out the root causes of this area. We held Coffee Klatches this year to discuss the staff satisfaction surveys and we will bring that information forward into the strategic planning meetings as we work toward identifying our goals for the next strategic planning cycle.	moved forward to the next strategic plan.
Community **1) By June 2017, identify strengths and gaps in community partnerships as they relate to moving forward the CHIP.**		Outreach committee has developed a Sector List identifying TCHD's Community Partnerships. All Divisions are aware of the list and can update contact information. Procedure has been written to update at least annually.	Outreach committee has met to update the sector list with a Library tab. The committee will continue to meet quarterly to identify and fill gap areas as they arise. This applies to # 2 & 3 below as well.	Complete and ongoing
2) By December 2017, create community partnerships where gaps exist and insure a broad community sector involvement for ongoing TCHD programs in 50% of the areas identified in the June 2017 assessment		Outreach committee has begun work on creating community partnerships where gaps exist. The work has only just begun so we are not at 50%.	Gaps were identified and committee continues to meet quarterly to discuss/document community partnerships that fill the gaps.	Complete and ongoing
3) By December 2018, create community partnerships where gaps exist and insure a broad community sector involvement for ongoing		Outreach committee has begun work on creating community partnerships where gaps exist. The work has only just begun so we	Gaps were identified and committee continues to meet quarterly to discuss/document community partnerships that	Complete and ongoing

TCHD programs in all remaining gap areas identified in the June 2017 assessment.		are not at 50%.	fill the gaps.	
Media Sources **1) Increase Public and Partners Awareness of Health Department Services by 25% thru and enhanced website by 12/31/19**		New website is being developed and is set to be revealed in October of 2018. We will monitor # of website hits received each quarter of FY19 and compare to baseline to see if it has increased by 25%	New Website went into effect 11/2018. How the old site documented # of hits and the new site documents # of hits is different. Will utilize 11/2018-June 2019 as baseline for measure and begin to monitor # of hits and develop strategies to "drive" people to our website for information.	Baseline data showed an average of 2480 pageviews for TCHD's official website per month with 1685 being unique pageviews. Currently, we are averaging 3836 pageviews with 2572 being unique. So, by 6/30/20, we have reached our 25% increase— COVID19 may have been big part of the increase. This Goal was met.
2) As needed, but no less than annually, ensure that data in the Community Health Dashboard is current and accurate.		In 2018, the Epi evaluated the data on the community health dashboard and found that there were not updates at that time. The current Epi will continue to evaluate annually.	The Epi worked with outside vendor to develop a data site to be used. This dashboard is updated on a regular basis.	100% Completed

Goal 3: Workforce Development

Strategy	Objectives	2018	2019	2020
Technology **1) Identify key TCHD Champions to support**	A) Increase Tazewell County Health Department staff proficiency of Office 365 by	Tech champion team was developed. Tech help email groups have been developed	Tech Champion team offered training in 2 of the highest requested areas—Excel and	The Tech Champion team is up and running offering education and assistance to

and empower staff on the utilization of current technology by June 2020	50% through training to be completed by 12/31/17	for staff to request specific help and a procedure is in place for both requesting help and responding to help requests. Also, IT staff offered Office 365 trainings during the early part of FY18. Staff will be surveyed in August 2018 to determine if there has been an increase.	Access. In addition, the Tech Champion team has established an email help request process so that staff have an additional resource (in addition to TCHD IT) where they can request help with all Office 365 programs. The The technology survey report written by the Epi provides the following insight in regard to technology training: "When asked if any training on technology was received in the last year the responses were nearly even compared to last year; however, the percentage of employees who found the training sufficient increased slightly. This of course is not inclusive of technology assistance that was given throughout the year aside from physical trainings. The survey data seems to show that the topics in which people were trained on and still need trained on have improved and shifted. While 64% of people needed trained on Excel in 2018, only 47% of employees would like additional training on this program. This finding was similar for Basic tools of	all staff. Survey results have not been collected at this point to know if we have met our goal of a 50% increase. Staff were survey and the results are as follows: The following question was asked of all staff: "If, in the last year have you received training &/or individual assistance from Tech Champions on Office 365, do you feel as though you have increased your knowledge of the program?" Responses: 49 Yes 43% No training received 45% No 12%

			technology and Microsoft Word as well showing the decrease in employees needing training in these areas. New technology topics were offered on the 2019 survey including SharePoint and Google Docs and showed the highest areas of where training should be focused in the next year."	
	B) Create a plan to implement any new technology/software acquired by TCHD by June 30, 2018.	Business Operations have developed a specific procedure regarding the implementation of the phone system but have not transferred that learning into a plan on rolling out other types of new technology/software.	No standardized plan has been developed but Business Operations has successfully implemented new Copiers within the building and ensured that staff were trained, and system was set up to streamline identified issues and fixes.	No standardized plan for implementation of any new technology/software was created. We did identify the need for instructions on how to create needed forms/letters within our Advanced MD program. We also implemented third-party billing for STD program services.
Personal and Professional Growth 1) Ensure individual training plans for each employee include a minimum of one personal/professional growth opportunity annually		Each employee had an individual training plan with at least 3 trainings but usually more. It is unclear on the documentation if at least 1 of those trainings was for personal/professional growth opportunity. We will improve our tracking for next year. We saw a slight improvement on the satisfaction survey in the "I get chances to attend training and improve my	Each employee had an individual training plan with at least 3 trainings but usually more. 31 staff (out of 67 staff) documented at least 1 of their trainings as a Personal/professional growth opportunity so we did make improvement on documentation of this. With staff participating in a total of 734 trainings combined throughout this last year, it is reasonable to think that	One goal within the WFD plan and is in the strategic plan as well is "Ensure individual training plans for each employee include a minimum of one personal/professional growth opportunity annually". Only 22 staff out of 66 documented a personal/professional growth training (33%) which is a decrease from last year which was 46%. In talking

		skills" question.	every staff had the opportunity for personal/professional growth opportunity but documentation of this needs to be addressed. We saw an improvement on the satisfaction survey in the "I get chances to attend training and improve my skills" question—it increased from 3.86 to 4.18 (an increase of .32) which was the second highest improvement on that survey.	with some staff, many of the trainings that were attended fulfilled this personal/professional growth opportunity but how-to document was not clear. We have not completed a satisfaction survey this year due to the COVID19 response that is taking place
2) Support Workforce Development Plan		The Workforce Development plan is being supported: management follow the outlined goal of developing individual training plans for each staff member and ensuring at least 3 trainings annually for each staff member. We need to improve on our tracking of "one of them being a personal/professional growth opportunity" each year; a tech champion team was developed to help in training staff on various Office 365 software that is utilized in their position.	The Workforce Development plan is being supported: management continue to follow the outlined goal of developing individual training plans for each staff member and ensuring at least 3 trainings annually for each staff member. We need to improve on our documentation of "one of them being a personal/professional growth opportunity" each year**. Gap areas identified in public health core competencies were addressed as follows (training needs to occur over 3-year period):** Public Health Specialists: 12 out of 19 staff received	98.5% of staff were assigned and attended at least 3 trainings this last rating year. I think it should be noted that in March of 2020, COVID19. A total of 66 staff had a combined total of 711 training opportunities that were completed. **Gap areas identified in public health core competencies were addressed as follows (training needs to occur over 3-year period):** All staff completed at least one training within the gap areas identified during this fiscal year.

			training on 1 of the 4 identified gap areas; Health Care Providers: 14 out of 20 staff received training on 1 out of the 3 identified gap areas; Program Support: 9 out of 9 staff received training on at least 1 of their 2 identified gap areas; Directors/Supervisors: 12 out of 12 received training on at least 1 of the 3 identified gap areas; Patient Support: 2 out of 7 staff received training on 1 out of 3 identified gap areas.	
3) Track ongoing evaluation and Health Improvement Plan support and progress		Each director has a job duty to actively engage partners outside of TCHD appropriate to program growth and sustainability which includes the tracking of CHIP. This last year we made progress in Behavioral Health with the receiving of the SAP (substance abuse prevention) grant; progress in HEAL with increasing the availability of fresh fr/veg with our WIC population through both our master Gardner/garden program here and working to improve the redemption of farmers market coupons; progress in Cancer through receiving a grant for a bilingual health	Progress this last year: **Cancer:** AOK working on reducing the # of women who smoke during pregnancy by 20%; ITFC (Illinois Tobacco Free Communities) tri-county grantees have together created 20 new tobacco-free policies which includes 13 campus, 4 outdoor and 3 housing; Currently TCHD is running a targeted media campaign for all 3 counties to promote the tobacco free campus, outdoor spaces and multi-unit housing policy creation in our tri-county area; **HEAL:** the number of IWP (Illinois WiseWoman Program) clients reporting	Progress this last year: **Cancer:** The Breast Cancer Action Team concentrated efforts during this third year of the 3-year plan on evidence-based strategies to help reduce breast canc3er mortality rates. Specific interventions were designed for the strategies to increase the rate of early stage breast cancer detection, as well as increase the proportion of newly diagnosed women who receive breast cancer treatment. Presented the Breast Cancer Position Statement adopted by the Partnership Board to the media, medical providers, and community coalition

		educator in our IBCCP program working with breast and cervical cancer patients along with doing outreach with this high risk population in our service area, And bolstering our Radon testing program in environmental health.	both moderate and vigorous physical activity at a minimum 3 days per week increased from 33% to 52%; the number of IWP clients consuming 3 or more servings of fruits and vegetable per day increased from 11% to 26%; the number of IBCCP (Illinois Breast and Cervical Cancer Program) clients that participate in IWP increased from 27% to 50%; TCHD garden continues to provide fresh produce to TCHD clients as well as providing excess produce to community partners; the edible forest project continues to progress and details have been drafted by the master gardeners; redemption of farmers market coupons continues to be an area of focus by WIC—increased last season from 22% to 39% which is higher than the overall state redemption rate of 36% **Behavioral Health:** Work being done within the schools through SAPS (Substance Abuse Prevention Services)—education delivered to 828 students thus far; 2018 IYS (Illinois Youth Survey) data has been	members. Supported Senate Bill 162 assuring diagnostic mammogram coverage. Identified partners offering access to care in transportation for rural populations. Promoted the state breast cancer screening program, guaranteeing mammograms and related services to an increased number of uninsured women throughout the region.40,678 breast cancer screenings. Lung Cancer highlights of the tobacco and radon strategies: 21 tobacco-free policies developed—Tobacco 21, Vaping, Flavor Bans, and Cannabis policy tracking. 430 Smoke-free compliance checks and 33 investigations on Smoke-free Illinois Act. Mass digital, print, and media campaign on tobacco. Outreach at 300 businesses, 1 community forum, and 12 coalition meetings. Partnered to receive data from State Quitline. **HEAL:** 18 after-school programs received one CATCH (Coordinated Approach to Child Health) nutrition lesson a week—30 lessons received by youth. 18 after-school programs

			shared through Facebook posts, stall readers within the junior highs and high schools, Town Hall meeting at Washington Community High School; MHFA (Mental Health First Aid) classes continued to be offered—recently, CEU's will be provided to nurses that attend this training which may help to increase participation; we were able to meet our goal of increasing the % of extended day students reporting they feel safe from bullying from 58% to 75%; we were able to increase the % of extended day students that have an overall positive self-esteem from 37% to 65%;	received three 30-minute physical activity lessons per week (732 students = 1,238.41 hours of physical fitness). Cookbooks were provided to WIC participants receiving Farmers Market checks. Promotion of seasonal "vegetable of the Month" which included: health benefits, recipes, how to us the vegetable, food demonstrations and samples from U of I Extension. Advocacy to increase approval of Farmers Market checks within the state—Woodford County was approved this year! So now all 3 counties have the Farmers Market program. ISPAN (IL State Physical Activity and Nutrition) grant entered its second of the 5-year program to implement physical and nutrition interventions designed for the community of the tri-county region to live healthier lives. Food system partners successfully applied for and was awarded funding through the Community Foundation of Central Illinois's Ending Hunger Together Initiative which brings partners together in an effort to increase access

				to health food, advance community education and create agricultural and community development opportunities for those that are food insecure within the tri-county. 17 fresh food drives were hosted in 2019—3,694 pounds of fresh produce donated.