

COLORADO's PUBLIC HEALTH IMPROVEMENT PLAN

2009



FROM *Act* TO ACTION

An Act

Be it enacted by the General Assembly of the State of Colorado:

SECTION 1. Part 5 of article 1 of title 25, Colorado Revised Statutes, is REPEALED AND REENACTED, WITH AMENDMENTS, to read:

PART 5
PUBLIC HEALTH
SUBPART 1 GENERAL

25-1-501. Legislative declaration. (1) THE GENERAL ASSEMBLY HEREBY FINDS AND DECLARES THAT:

(a) THE PUBLIC HEALTH SYSTEM REDUCES HEALTH CARE COSTS BY PREVENTING DISEASE AND INJURY, PROMOTING HEALTHY BEHAVIOR, AND REDUCING THE INCIDENTS OF CHRONIC DISEASES AND CONDITIONS. THUS, THE PUBLIC HEALTH SYSTEM IS A CRITICAL PART OF ANY HEALTH CARE REFORM.

(b) EACH COMMUNITY IN COLORADO SHOULD PROVIDE HIGH-QUALITY PUBLIC HEALTH SERVICES REGARDLESS OF ITS LOCATION. THUS, THE STATE OF COLORADO AND EACH LOCAL PUBLIC HEALTH AGENCY SHOULD HAVE A COMPREHENSIVE PUBLIC HEALTH PLAN OUTLINING HOW QUALITY PUBLIC HEALTH SERVICES WILL BE PROVIDED.

(c) EACH COUNTY SHOULD ESTABLISH OR BE PART OF A LOCAL PUBLIC HEALTH AGENCY ORGANIZED UNDER A LOCAL BOARD OF HEALTH WITH A PUBLIC HEALTH DIRECTOR AND OTHER STAFF NECESSARY TO PROVIDE PUBLIC HEALTH SERVICES;

(d) A STRONG PUBLIC HEALTH INFRASTRUCTURE IS NEEDED TO PROVIDE ESSENTIAL PUBLIC HEALTH SERVICES AND IS A SHARED RESPONSIBILITY AMONG STATE AND LOCAL PUBLIC HEALTH AGENCIES AND THEIR PARTNERS WITHIN THE PUBLIC HEALTH SYSTEM; AND

(e) DEVELOPING A STRONG PUBLIC HEALTH INFRASTRUCTURE REQUIRES THE COORDINATED EFFORTS OF STATE AND LOCAL PUBLIC HEALTH AGENCIES AND THEIR PUBLIC AND PRIVATE SECTOR PARTNERS WITHIN THE PUBLIC HEALTH SYSTEM TO:

(I) IDENTIFY AND PROVIDE LEADERSHIP FOR THE PROVISION OF ESSENTIAL PUBLIC HEALTH SERVICES;

(II) DEVELOP AND SUPPORT AN INFORMATION INFRASTRUCTURE THAT SUPPORTS ESSENTIAL PUBLIC HEALTH SERVICES AND FUNCTIONS;

(III) DEVELOP AND PROVIDE EFFECTIVE EDUCATION AND TRAINING FOR MEMBERS OF THE PUBLIC HEALTH WORKFORCE;

(IV) DEVELOP PERFORMANCE-MANAGEMENT STANDARDS FOR THE PUBLIC HEALTH SYSTEM THAT ARE TIED TO IMPROVEMENTS IN PUBLIC HEALTH OUTCOMES OR OTHER MEASURES; AND

(V) DEVELOP A COMPREHENSIVE PLAN AND SET PRIORITIES FOR PROVIDING ESSENTIAL PUBLIC HEALTH SERVICES.

STATE OF COLORADO

Bill Ritter, Jr., Governor
Martha E. Rudolph, Executive Director

Dedicated to protecting and improving the health and environment of the people of Colorado

4300 Cherry Creek Dr. S. Laboratory Services Division
Denver, Colorado 80246-1530 8100 Lowry Blvd.
Phone (303) 692-2000 Denver, Colorado 80230-6928
TDD Line (303) 691-7700 (303) 692-3090
Located in Glendale, Colorado

<http://www.cdphe.state.co.us>



Colorado Department
of Public Health
and Environment

December 28, 2009

Governor Bill Ritter, Jr., Members of the Colorado General Assembly and the Public Health Community:

On behalf of the Colorado Department of Public Health and Environment (the department), the State Board of Health and the Public Health Act Advisory Group, we are pleased to share with you the first statewide public health improvement plan: *Colorado's Public Health Improvement Plan-From Act to Action*.

The statewide plan is the result of a commitment by local and state public health professionals, the department, the State Board of Health and the Caring for Colorado Foundation to implement one important component of Senate Bill 08-194, the Public Health Act. That legislation required the department to develop a statewide plan that sets the course for the creation of a cohesive public health system in Colorado. We believe this effort provides the foundation upon which we can enhance our current public health system in ways that respect the diversity of our state, yet still build a more uniform service model that efficiently and effectively uses our valuable resources.

This plan addresses a variety of important needs including defining core services and standards, developing a system for assessing priorities, examining the funding processes, enhancing our workforce and increasing efficiency in using technology. In addition, the plan emphasizes the importance of sharing responsibilities and decision making among state and local public health agencies, across programs and organizations, and in conjunction with local boards of health and county commissioners.

While significant effort and collaboration created this plan, we recognize that our work is far from complete. As required by the legislation, the department will reassess and revise the plan at least every five years to respond to the changing needs of our citizens and communities. With the addition of local public health plans, our next statewide plan will include essential strategies for improving health outcomes in Colorado. Subsequent plans will be provided to you as part of this process.

We wish to thank you for your continuing support of public health in Colorado. We welcome the opportunity to discuss the plan with you and look forward to the ongoing work to ensure that every Coloradan, regardless of where they live, work, or play, can realize the opportunity for optimal health. Forward any questions to the Office of Planning and Partnerships at cdpheedPlanningandPartnerships@cdphe.state.co.us or (303) 692-2350.

Sincerely,

Ned Calonge, M.D., M.P.H.
Chief Medical Officer
Co-Chair Public Health Act Advisory Group

Chris Urbina, M.D., M.P.H.
Director, Denver Public Health
Co-Chair Public Health Act Advisory Group

Martha Rudolph
Executive Director

Glenn H. Schlabs
President, State Board of Health

Acknowledgements

Public Health Act Advisory Group

Local Public Health

Co-chair- Chris Urbina, MD, MPH
Director, Denver Public Health

Jackie Brown, APRN, MSN, FNP
Director, Prowers County Public Health

Deb Crook, RN, MSN
Director, Summit County Public Health

Mark Johnson, MD, MPH
Executive Director, Jefferson County Public Health

Jim Rada, REHS
Environmental Health Manager,
Garfield County Public Health

Jeff Stoll, MPH
PH Director, Broomfield Public Health & Environment

Stacy Weinberg, MA
Director of Epidemiology, Planning &
Communication, Tri-County Health Department

Jeff Zayach, MS
Executive Director, Boulder County Public Health

Colorado Department of
Public Health & Environment

Co-chair- Ned Calonge, MD, MPH
Chief Medical Officer

Jillian Jacobellis, PhD, MS
Director, Prevention Services Division

Jeff Lawrence
Director, Consumer Protection Division

Chris Lindley, MPH
Director, Emergency Preparedness &
Response Division

Lisa Miller, MD, MSPH
Director, Disease Control & Environmental
Epidemiology Division

Martha Rudolph
Director of Environmental Programs

Mark Salley
Communications Director

Alyson Shupe, PhD
Chief, Health Statistics Section, Center for
Health & Environmental Information & Statistics

Other Public Health Partners

Gini Pingnot
Policy and Research Director
Colorado Counties, Inc

Glenn Schlabs
President, State Board of Health

Lee Thielen, MPA
Executive Director, Public Health Alliance
/Colorado Association of Local Public
Health Officials (CALPHO)

Chris Wiant, MPH, PhD
President and CEO, Caring for Colorado

We would like to thank the following for participation on workgroups, facilitation and planning

Bernadette Albanese, MD, MPH
El Paso County Department of Health & Environment

Jessica Bondy, MS
Colorado School of Public Health

J. Elaine Borton, MPH
Center for Public Health Practice,
Colorado School of Public Health

Jackie Brown, APRN, MSN, FNP
Director, Prowers County Public Health

Kathy Brown, RN, MS, MEd., NP
Office of Planning & Partnerships, CDPHE

Terry Bryant, MS
Office of Planning & Partnerships, CDPHE

Tom Butts, MSc. REHS
Tri-County Health Department

Tim Byers, MD, MPH
Center for Public Health Practice,
Colorado School of Public Health

Art Davidson, MD
Director, Public Health Informatics,
Denver Public Health

Tsering Dorjee, RN, MSN, MPH
Office of Planning & Partnerships, CDPHE

Lane Drager
Boulder County Public Health

Jan Gascione, Ph.D., CHES
Center for Public Health Practice,
Colorado School of Public Health

Allison Hawkes, MD, MS
Tri-County Public Health Department

Jill Hunsaker, MPH
Office of Planning & Partnerships, CDPHE

Cerise Hunt, MSW
Office of Health Disparities, CDPHE

Mark Johnson, MD, MPH
Executive Director, Jefferson County Public Health

Jillian Jacobellis, PhD, MS
Preventions Services Division, CDPHE

Gabriel Kaplan
Prevention Services Division, CDPHE

Jennifer Lavelly, MPH

Adrienne LeBailly, MD, MPH
Larimer County Department of Health &
Environment

Chris Lindley, MPH
Director, Emergency Preparedness &
Response Division, CDPHE

Corrina Lucero, MPH
Office of Planning & Partnerships, CDPHE

Kathleen Matthews, MPH
Director, Office of Planning & Partnerships, CDPHE

Lisa Miller, MD, MSPH
Director, Disease Control & Environmental
Epidemiology Division, CDPHE

John Romero Campbell
Office of Health Disparities, CDPHE

Zulema Smith, RN, MPH
Office of Planning & Partnerships, CDPHE

Sharon Stevenson, MA
Colorado Center on Law & Policy

Jeff Stoll, MPH
PH Director, Broomfield Public Health &
Environment

Barb Stone, MSPH
Tri-County Health Department

Alyson Shupe, PhD
Chief, Health Statistics Section, Center for
Health and Environmental Information & Statistics,
CDPHE

Richard Thompson
Montrose County Public Health

Lee Thielen, MPA
PH Alliance/CALPHO

Karen Trierweiler, MS, CNM
Preventions Services Division, CDPHE

Lisa VanRaemdonck, MPH, MSW
CALPHO

Chris Urbina, MD, MPH
Director, Denver Public Health

Jeff Zayach, MS
Executive Director, Boulder County Public Health

Chris Wells
Center for Health & Environmental
Information & Statistics, CDPHE

Stacy Weinberg, MA
Director of Epidemiology, Planning &
Communication, Tri-County Health Department

Colorado Public Health Association

Colorado Environmental Health Association

Table of Contents

| | |
|--|----|
| The Public Health Act of 2008 – Improving Public Health in Colorado..... | 1 |
| Colorado’s Health Status | 3 |
| Colorado’s Public Health System...and a bit of history | 6 |
| Goals of the Public Health System | 12 |
| Identification of Public Health Improvements in Colorado | 13 |

Recommendations for Improving Colorado’s Public Health System

| | |
|---|----|
| Core Services and Standards | 14 |
| Assessment and Planning | 18 |
| Financing and Funding Public Health | 23 |
| Public Health System Roles, Relationships, and Communications | 26 |
| Workforce Development | 31 |
| Data, Technology, and Public Health Informatics | 38 |
| Moving Forward..... | 42 |
| Colorado’s Public Health Improvement Plan at a Glance | 43 |
| Sources..... | 45 |

APPENDICES

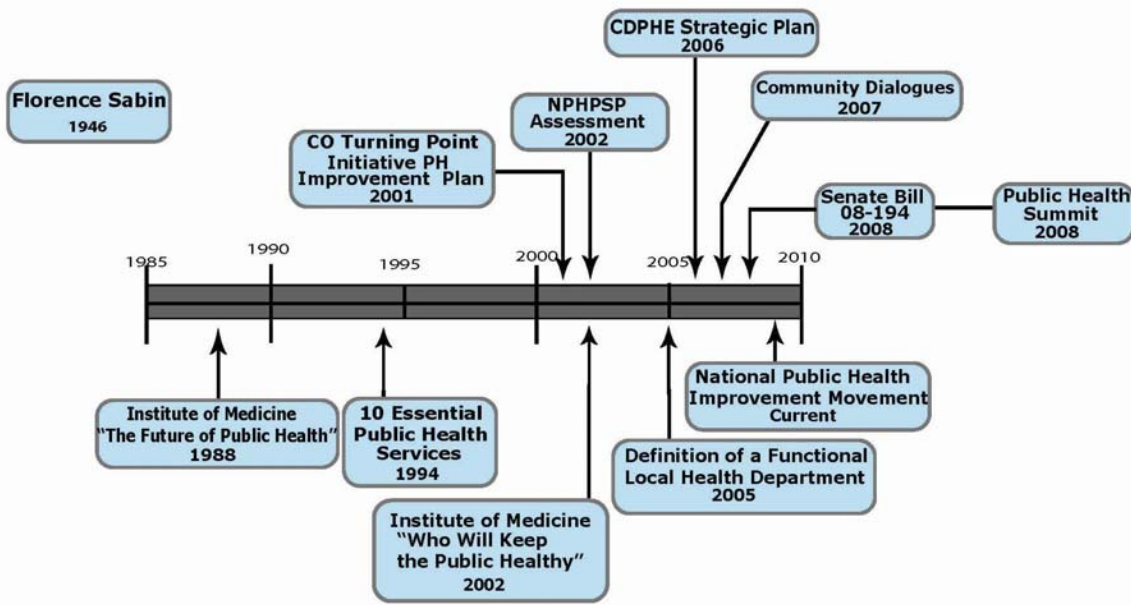
- I. Requirements for Plan
- II. Developing Plan-Process
- III. Core Services Draft

The Public Health Act of 2008—Improving Public Health in Colorado

Recognizing the need for improvements in Colorado’s public health system, legislators in 2008 passed Senate Bill 194, the Public Health Act. Though passage of this Act marks a high point along the way, improving public health outcomes among Coloradans is a journey. The Act recalls many efforts that have come before, some historic, some less remarkable, but all with something to teach. From Florence Sabin, who tirelessly advocated for an improved public health system in the 1940’s, to the Robert Wood Johnson Foundation Turning Point Initiative in 2001, to the Caring for Colorado Foundation’s Community Dialogues in 2007; these efforts, along with many others, have been milestones on our journey. They have paved our way, and allowed us to continue, rather than begin, on this path to improvement.

The Public Health Improvement Journey

Colorado Efforts



National Efforts

Senate Bill 08-194, “the Public Health Act,” was passed to update Colorado’s public health system, as recommended in the 2001 Turning Point Initiative Report and again through the 2007 Community Dialogues process. In summary, the Act:

- Restructures local governmental public health;
- Defines new roles for the State Board of Health as well as local boards of health; and
- Establishes a collaborative, statewide five year planning cycle

The *intent* of the Public Health Act of 2008 is to improve the performance of the public health system in order to improve the health outcomes of Colorado's residents and visitors. The Act calls upon the Colorado Department of Public Health and Environment (CDPHE) to develop a comprehensive statewide public health improvement plan every five years that assesses and sets priorities for the public health system. The Public Health Act specifically identifies the following purposes for the plan:

- Guide the public health system in targeting core public health services and functions through program development, implementation, and evaluation;
- Increase the efficiency and effectiveness of the public health system;
- Identify areas needing greater resource allocation to provide essential public health services;
- Incorporate, to the extent possible, goals and priorities of public health plans developed by county or district public health agencies; and
- Consider available resources, including but not limited to state and local funding, and be subject to modification based on actual subsequent allocations.

To that end, this initial Statewide Improvement Plan has been conceived as an opportunity to lay the groundwork for an institutionalized, statewide planning process. The following recommended goals, strategic priorities, and action steps were identified from a review of current and previous public health improvement initiatives in Colorado, most recently the 2007 Community Dialogues. Public input was then gathered from more than 350 public health professionals and partners around the state to fully develop these recommendations (see the requirements and process for the plan in Appendices I & II).

Many of the recommendations involve strategically addressing existing infrastructure and activities; that is, they call for doing things differently, rather than doing new things. This is a "living" plan that includes multiple agencies and suggested task forces taking lead roles that will in turn develop work plans and measurable objectives, adapting as needed to be successful. Local public health practitioners, public health organizations, the Colorado School of Public Health's Center for Public Health Practice, and programs within CDPHE such as the Office of Planning and Partnerships are positioned to facilitate and support implementation of activities to achieve the recommendations. The recommendations and subsequent actions describe general activities and benchmarks identified at this stage.

Implementation of many of the recommendations will require little or no additional revenues. For those actions that do require additional funding, practitioners and agencies must come together as a system and collectively identify and pursue new opportunities for funding. To achieve sustainable improvements in the public health system, this process will require consensus among local and state public health agencies, as well as the many other partners that comprise the public health system.

This plan represents the contribution and commitment of numerous public health partners in Colorado. The input gathered from the dedicated public health professionals throughout this process, if not directly incorporated into this plan, has been recorded to be used for guidance in implementation.

Colorado's Health Status

The Landscape

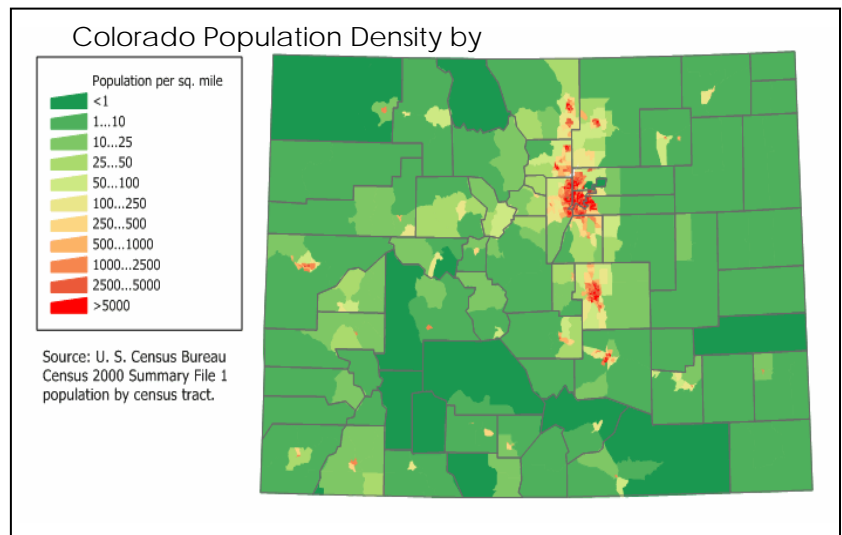
Geographically, Colorado is the 8th largest state in the nation. It also has the 10th largest difference between its lowest point of elevation and its highest, and the highest average elevation of any state. The state ranks 24th in total population. There are 64 counties in the state, ranging in size from 34 square miles (Broomfield) to 4,773 square miles (Las Animas), and in population from 551 (San Juan) to 596,582 (Denver). Forty-seven counties are designated as either rural or frontier; 17 are considered urban.

Colorado has a diverse population with striking differences from county to county. For example, approximately 10.9 percent of Coloradans live in poverty, but this percentage differs dramatically across the state, from a low of 2.9 percent in Douglas County to a high of 31.3 percent in Crowley County (<http://www.census.gov/cgi-bin/saipe/saipe.cgi>). These statistics demonstrate the geographic and population diversity in the state and illustrate some of the inherent difficulties in providing high quality, equitable public health services to every Coloradan.

Determinants of Health

Population size and density, and elevation have an influence on health by virtue of the limitations they introduce to the provision of or access to services, their potential to limit social networks, and the possibilities they create for certain forms of discrimination. As identified by the Centers for Disease Control and the World Health Organization, social determinants of health are the circumstances and environments in which people are born, grow up, live, work and age, and the systems put in place to deal with illness. These circumstances are in turn shaped by a wider set of forces: economics, social policies, and politics.

(www.cdc.gov/socialdeterminants/).



Determinants of Health

- Individual biology and behavior
- Physical and social environments
- Policies and interventions
- Access to health care

In addition to contributing to or detracting from health, determinants of health are also largely responsible for inequalities in health because 1) they are directly related to health status and 2) they are disproportionately distributed across populations. Poverty, education, and social discrimination due to identity within a particular social group (e.g., race and ethnicity, gender, or class) are examples of these additional health determinants. Colorado's Turning

Point Initiative, in 2001, succeeded in elevating attention to the social determinants of health and the health inequalities that result from them. And while progress has been made, health disparities continue to persist, especially among communities of color.

Measuring Colorado's Health Status

In 2009, CDPHE began publishing Regional Health Profiles to provide a point-in-time snapshot of health at the local level. (<http://www.cdphe.state.co.us/hs/regionaldata/regionaldata.html>) In addition to estimates of health status, these profiles include available estimates of social determinants of health such as population size and distribution by age, gender, race/ethnicity, income and education. The profiles are arranged using a "life cycle" approach, with indicators of population health across the perinatal and infant period, childhood, adolescence, and adulthood.

The Regional Health Profiles allow a rapid inventory of data that indicate specific areas of public health concern in Colorado. Comparing state-level data to their respective Healthy People 2010 objectives, one can readily identify potential public health priorities across every phase of the life cycle. For example, between 2005 and 2007, 18.4 percent of adults in Colorado were obese; the target objective set by Healthy People 2010 is 15 percent. (<http://www.healthypeople.gov/>).

Healthy People 2010 is a set of measurable objectives to improve the nation's health status by decade. These objectives are used by states, communities, organizations, and others to help set priorities and develop programs to improve health.

A companion to the Regional Health Profiles, the Regional Health Disparities Profiles, allows assessment of differences in the determinants of health and in health status by race/ethnicity. Considering teen fertility rates, as an example, between 2003 and 2007, one finds in the profiles that rates vary considerably. White non-Hispanic women age 15-17 had a rate of 10.2 births per 100,000 women, Black/African American women age 15-17 had a rate of 38.6 births per 100,000 women, and Hispanic/Latino women age 15-17 had a rate of 69.2 births per 100,000 women. In addition to these statewide Profiles, many CDPHE programs have established indicators to measure their progress toward improving the health of Coloradans.

2009 Snapshot

Over the past decade, Colorado has had varying degrees of success in reducing risk factors and improving health. Births resulting from unintended pregnancy and teen fertility rates remain high, but initiation of breastfeeding has increased. Overweight and obesity remain a concern, but Colorado is still one of the leanest states in the nation. The number of cases of chlamydia, gonorrhea, and syphilis is on the rise, but Colorado's childhood immunization rate has improved. These data illustrate the advances Colorado's public health system has made in improving health and some of the challenges that remain.

These indicators represent only a small portion of the indicators utilized at the state level to track health status and the determinants of health. At CDPHE, the Prevention Services Division recently published a comprehensive state-level report covering 92 indicators relevant to chronic disease (<http://www.cdphe.state.co.us/pp/chronicdisease/index/html>). Over the last decade, the Office of Health Disparities at CDPHE and partners have published a tri-annual surveillance report on racial and ethnic disparities in Colorado. The report looks at the four major communities of color, averaging 40 indicators per group based on the life cycle. The unique document also covers the social determinants of health and the cost of disparities ending with a summary of recommendations for improving health disparities. The latest report was published in 2009 (<http://www.cdphe.state.co.us/ohd/index.html>).

These state-level efforts to describe the health status of Colorado mark a good beginning for systematically setting statewide public health priorities. To continue this work, CDPHE, local public health agencies, and other system partners must work together to identify the most pressing public health issues across the state. The following table shows Colorado's measures in comparison to the national Healthy People 2010 Objectives. (<http://www.healthypeople.gov/>).

| Selected Health Indicators monitored by CDPHE and most recent Colorado estimate available | | Current Measure* | Related HP 2010 Objective |
|--|--|-------------------|---------------------------|
| Mortality | | | |
| | Heart Disease | 160.6 per 100,000 | 162 per 100,000 |
| | Cancer | 159.5 per 100,000 | 158.6 per 100,000 |
| | Unintentional Injury | 43.5 per 100,000 | 17.1 per 100,000 |
| | Motor vehicle death rate | 11.6 per 100,000 | 9.2 per 100,000 |
| Chronic Disease Prevention | | | |
| | Colonoscopy/endoscopy screening | 57.2 percent | N/A |
| | Mammography screening | 72.0 percent | 70 percent |
| | Pap Smear screening in past three years | 85.3 percent | 90 percent |
| | Physician advice to quit smoking | 64.0 percent | 85 percent |
| | Prevalence of smoking (adolescents) | 14.6 percent | 16 percent |
| | Prevalence of smoking (adults) | 18.7 percent | 12 percent |
| | Lipid tests | 73.7 percent | N/A |
| | Participation in chronic disease self management | 450 persons | N/A |
| | Prevalence of obesity (adults) | 19.3 percent | 15 percent |
| | Prevalence of healthy weight (children) | 63.5 percent | N/A |
| | Prevalence of healthy weight (adolescents) | 79.2 percent | N/A |
| | Physician advice to lose weight (overweight) | 17.0 percent | N/A |
| | Physician advice to lose weight (obese) | 40.7 percent | N/A |
| | Prevalence of physical activity (children) | 55.0 percent | N/A |
| | Prevalence of physical activity (adolescent) | 19.3 percent | N/A |
| | Prevalence of physical activity (adult) | 72.0 percent | N/A |
| Communicable Disease | | | |
| | Incidence of HIV | 7.7 per 100,000 | N/A |
| | Incidence of tuberculosis | 2.3 per 100,000 | 1.0 per 100,000 |
| | Pneumococcal infections among children | 14.9 per 100,000 | 46 per 100,000 |
| | Pneumococcal infections among older adults | 26.8 per 100,000 | 42 per 100,000 |
| | 4:3:1:3:3:1 childhood vaccination series | 79.4 percent | 80 percent |
| Environmental Health | | | |
| | Inspections that result in voluntary condemnations | 8.1 percent | N/A |
| | Full-service restaurant inspections that result in 3 or more food borne illness violations | 12.5 percent | N/A |
| | Water quality health based violations | 7.4 percent | N/A |
| | Radon home tests exceeding 4.0 pCi/L | 49.5 percent | N/A |
| | Residential waste recycled | 20.0 percent | 38.0 percent |
| Injury, Suicide, and Violence Prevention | | | |
| | Safety-belt use (adolescents) | 89.1 percent | 92 percent |
| | Safety-belt use (adults) | 81.7 percent | 92 percent |
| | Use of child safety restraints | 90.1 percent | 100 percent |
| | Hip fractures among older adults (female) | 830 per 100,000 | 416 per 100,000 |
| | Hip fractures among older adults (male) | 465 per 100,000 | 474 per 100,000 |
| | Deaths from falls among older adults | 69 per 100,000 | 3.0 per 100,000 |
| | Deaths from suicide (all ages) | 16.0 per 100,000 | 4.8 per 100,000 |
| | Adolescents who attempted suicide | 9 percent | 1 percent |
| Maternal and Child Health | | | |
| | Births resulting from an unintended pregnancy | 39.4 percent | 30 percent |
| | Births with inadequate weight gain | 24.2 percent | N/A |
| | Children overweight or obese | 27.8 percent | N/A |
| | Dental services among Medicaid-eligible children | 41.6 percent | N/A |
| | Motor vehicle death rate age 15-19 | 18.2 per 100,000 | 9.2 per 100,000 |
| | Schools with school-based health centers | 39 | N/A |
| *Most recent year(s) for which data are available varies by indicator. Data were provided by Behavioral Risk Factor Surveillance System, Youth Risk Factor Surveillance System, Vital Records, Child Health Survey and the following CDPHE divisions: Center for Health and Environmental Information and Statistics, Prevention Services, Disease Control and Environmental Epidemiology, Consumer Protection, Water Quality, Air Quality, and Hazardous Waste. | | | |

Colorado's Public Health System...and a bit of history

To understand how Colorado's public health system is changing, it is important to know our history and how our system has developed over time. This brief history, adapted from the 1969 publication "Health in Colorado: The First One Hundred Years," will provide some insight into our current and evolving system of public health, and the components that will be most impacted by the Public Health Act of 2008 and our Statewide Public Health Improvement Plan. (<http://www.coloradopublichealth.org/documents/HealthinColorado.pdf>)

Colorado State Board of Health

The nine-member State Board of Health was established in **1877** by act of Colorado's First General Assembly. The responsibilities of the first State Board of Health mirrored the public health issues of the time. The Board was charged with the collection and study of vital statistics as a means of determining the causes of illness and death, the control of epidemics and contagious disease, and advice on proper sources of water supplies and places of sewage disposal. The Board's first official vital statistics report showed that 24.7% of deaths were caused by consumption (tuberculosis), 7.8% by diphtheria, 5.4% by scarlet fever and pneumonia, and 5% by heart disease. Over the years, with growing concern about protecting the public health, public health laws evolved and the legislature gave additional authority to the State Board to enact and enforce public health rules and regulations.

Currently, State Board of Health members are appointed to staggered, four-year terms by the Governor. One member is appointed from each of Colorado's seven Congressional districts and two members are from the state at-large. One of the board members must be a county commissioner and no more than five members can be from the same political party.

The primary duties of the State Board of Health, established by state law, are to:

- Adopt or revise standards, rules and regulations to administer the public health laws of the state.
- Determine general policies to be followed in administering and enforcing the public health laws, standards, rules and regulations.
- Act in an advisory capacity to the executive director of the state public health department on matters pertaining to public health.
- Establish and appoint special advisory committees when necessary to advise and confer with the board concerning the public health aspects of any business, profession or industry within the state.
- Approve grants to local public health agencies and community-based organizations for a variety of public health efforts.

The Public Health Act of 2008 added the following components to the authority and duties of the State Board of Health:

- Establish core public health services that each county and district public health agency must provide or arrange for the provision of said services.
- Establish minimum quality standards for public health services.
- Establish minimum qualifications for county and district public health directors and medical officers.
- Ensure the development and implementation of a comprehensive, statewide public health improvement plan.
- Review all county and district public health agency public health plans.

In addition to the Board of Health, a variety of other state boards and commissions related to public health have been established by Colorado statute. Examples of these boards and commissions include the Air Quality Control Commission, Colorado HIV and AIDS Prevention Grant Program Advisory Committee, Minority Health Advisory Commission, State Emergency Medical Services and Trauma Advisory Council and the Water Quality Control Commission.

State Health Department

Throughout the early 1900s, new public health responsibilities, including food inspection and licensing of hospitals, were given to the Board of Health which was not distinct from the state health department at that time. In 1941, the Division of Public Health became a division of the executive branch of government under the direct supervision of the governor. In **1947**, the legislature created a Department of Public Health, taking it from the executive branch of state government and establishing two divisions -- the State Board of Health as the advisory, consultative and judiciary branch, and an executive division consisting of the state health officer and staff. This was the result of one of the seven "Sabin bills" that were passed in the 1947 legislative session as a result of Dr. Florence Sabin's campaign for public health in Colorado.

The state health department, renamed the Colorado Department of Public Health and Environment (CDPHE) in 1994, currently includes a main campus in Denver as well as regional offices in Grand Junction and Pueblo, a state laboratory in Denver and a branch laboratory in Grand Junction. Environmental concerns including water, sewage, air, food, naturally occurring radioactivity and the impacts of mining have greatly influenced the evolution of the public health system in Colorado. The combination of both public (human) and environmental health in one state agency, as exists in Colorado, is uncommon across the nation.

The Public Health Act of 2008 prompted the development of the Office of Planning and Partnerships, within CDPHE, to coordinate many aspects of the implementation of the Act. This Office exists to collaborate and partner across the public health system to maintain and further strengthen statewide infrastructure and capacity.

Local Boards of Health

In **1893**, Colorado legislators passed a bill, drafted by physicians and concerned citizens, to create and empower local boards of health. However, there is not much discussion of local boards of health in the written history of Colorado public health. The Public Health Act of 2008 further formalizes the structure and duties of local boards of health. The Act requires that each county or district board of health consist of at least five members, appointed by the board of county commissioners, to include county commissioners as well as county residents with expertise or interest in health and public health. In counties with populations of less than 100,000, a three-member board can be appointed and the board of county commissioners may designate itself, if there was not a board of health separate from the board of county commissioners prior to the 2008 Act.

The Act states that local board of health members shall be residents of the county and no business or professional group or governmental entity shall constitute a majority of the board. Local public health agencies serving multiple counties have district boards of health. District board of health members will be appointed by an appointments committee composed of

board of health members will be appointed by an appointments committee composed of one member of each of the boards of county commissioners of the counties comprising the district. The district board of health must have at least one member from each of the counties comprising the district.

Local boards of health provide administrative, policy and financial oversight to the designated public health agency, and the duties defined within the Act (C.R.S. 25-1-508) include:

Administrative

- Select, advise and evaluate the Public Health Director of the county or district public health agency.
- Determine the services and set priorities to carry out the public health laws and rules of the State Board of Health and CDPHE's environmental commissions according to the specific needs and resources available within the community and as set out in the state and local plans.
- Review and approve the local public health plan and submit to the State Board of Health for review.

Policy

- Consider advice from the local public health agency regarding policy issues necessary to protect public health and the environment.
- Develop and promote the public policies needed to secure the conditions necessary for a healthy community.
- Determine general policies to be followed by the public health director in administering and enforcing public health laws, orders, and rules of the county or district board.
- Follow orders, rules, and standards of the State Board of Health.
- Issue orders and adopt rules not inconsistent with the public health laws of this state.

Financial

- Certify that claims or demands against the local public health agency fund shall be expended only for public health purposes.
- Annually estimate the total cost of maintaining the local public health agency for the ensuing year and submit a budget to the county commissioners.
- Provide for and assess fees to offset the actual, direct cost of environmental health services.
- Accept and, through the public health director, use, disburse, and administer all Federal and State aid or other property and services or money allotted to an agency for county or district public health functions.

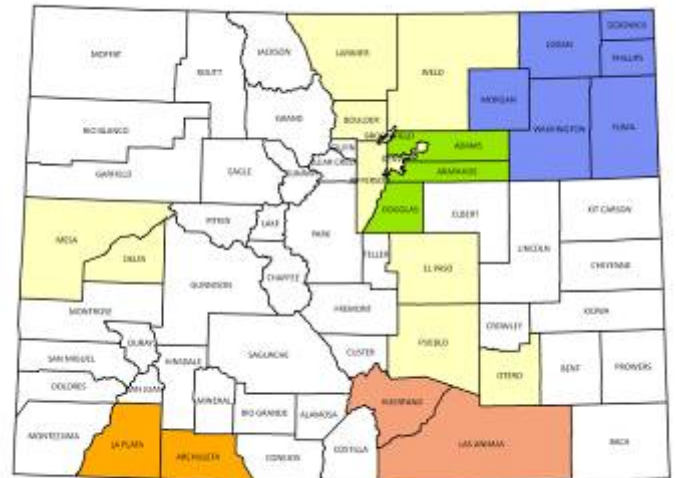
Local Public Health Departments and Agencies

Public health at the local level was strengthened by public health nursing throughout Colorado in the late 1880s through the early 1900s. A variety of entities were involved in the evolution of public health nursing including the American Red Cross, the Visiting Nurse Association and the Colorado Tuberculosis Association. In 1922, the State Board of Health included a division of public health nursing.

In 1924, local public health departments began to develop in more populated areas. By 1948, following the passage of the Sabin bills, eight single or multiple county health units were providing basic public health services to 18 counties.

Prior to passage of the Public Health Act of 2008, fifteen "Organized Health Departments," serving 24 counties and 85% of the state's population, had been formed. These agencies were responsible for the provision of a broad scope of public health services within their jurisdiction. This map indicates, with color, the location of the agencies formerly called "Organized Health Departments." The multi-county, or district, public health agencies are shown in unique color on the map.

Prior to 2008 Act



In the remaining 40 counties, only those public health services deemed necessary by the local board of health (fulfilled by the board of county commissioners and one physician), and falling within the scope of the practice of nursing were required by statute (C.R.S. 25-1-601-repealed 2008). These counties are shown in white on the map.

Prior to 2008, whether a county had an organized health department or a nursing service was based on history and did not necessarily reflect current needs or population size. This is evidenced by the fact that eight of the counties with former "Nursing Services" have populations larger than four of the counties with former "Organized Health Departments." The primary difference was the scope of public health services provided. In at least ten of the counties formerly served by "Nursing Services," there is no direct provision of environmental health services.

After July 1, 2009



The organized health departments followed different statutory requirements prior to the Act and were encouraged through funding incentives to provide additional services outside of their jurisdiction to counties that did not provide the full range of public health services. While the Public Health Act of 2008 established a uniform system of agencies, the current challenge is how to operationally provide uniform services throughout the state. This new map depicts the local public health agencies formed by resolution of the respective boards of county commissioners by July 1, 2009.

During the last few decades, with the state’s population more than doubling and the growth of tourism, the population centers in the state have also changed accordingly. The following table identifies the year the “Organized Health Departments” were established along with the current population of the counties served.

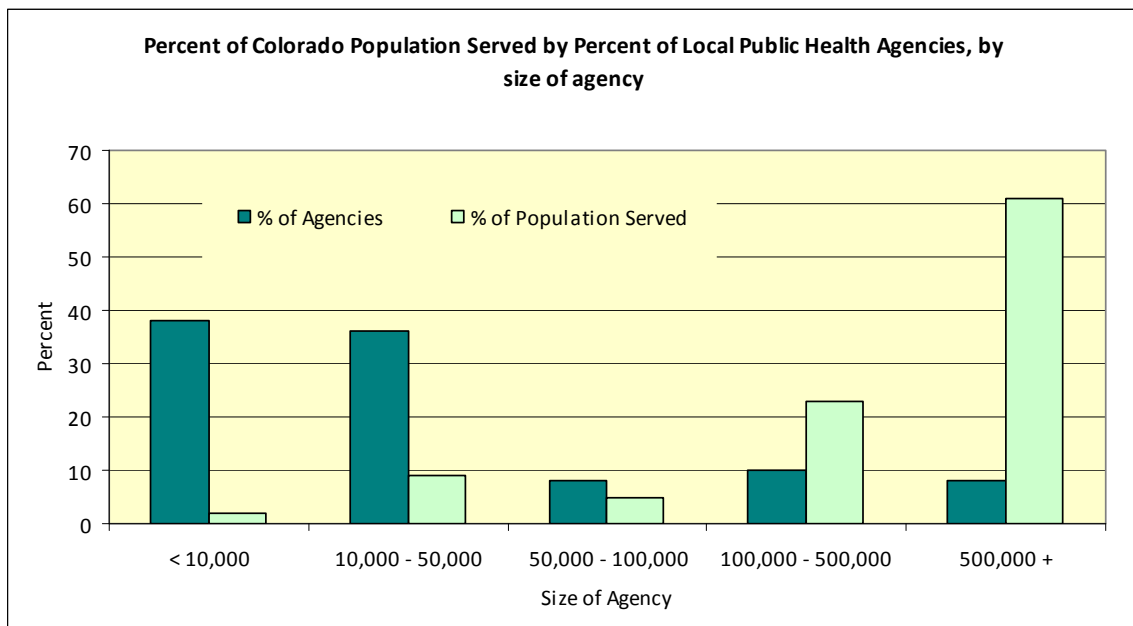
| Formation of Colorado’s Health Department’s Prior to the 2008 Act | YEAR ESTABLISHED | CURRENT POPULATION SERVED |
|---|------------------|---------------------------|
| Otero (re-established in 1938) | 1924 | 19,971 |
| Weld | 1938 | 267,032 |
| El Paso | 1939 | 649,217 |
| Denver | 1939 | 606,667 |
| Huerfano/Las Animas ¹ | 1951 | 26,598 |
| Tri County ² (Adams, Arapahoe and Douglas) | 1948 | 1,337,670 |
| Mesa | 1948 | 150,504 |
| Northeast (Logan, Morgan, Phillips, Sedgwick, Washington, Yuma) | 1948 | 77,354 |
| San Juan Basin ³ (La Plata and Archuleta) | 1948 | 67,413 |
| Pueblo | 1952 | 164,982 |
| Boulder | 1954 | 298,822 |
| Jefferson | 1958 | 550,046 |
| Larimer | 1968 | 299,040 |
| Delta | 1981 | 34,200 |
| Broomfield | 2001 | 51,970 |

¹ Las Animas first formed a health department in 1944.

² Tri-County originally served Adams, Arapahoe and Jefferson Counties. Jefferson County formed their health department in 1958. Douglas County joined Tri-County in 1966.

³ San Juan, Delores and Montezuma counties were previously part of San Juan Basin Health Unit.

The following graph shows that 38% of all agencies serve populations of less than 10,000 people; taken together, these agencies serve less than five percent of the total population. Conversely, less than 10 percent of local public health agencies serve populations with size greater than 500,000 people, yet together these agencies serve over 60 percent of the total population. The geography and distribution of population in Colorado has added complexity to the delivery of public health services across the state throughout history and is still a concern today.

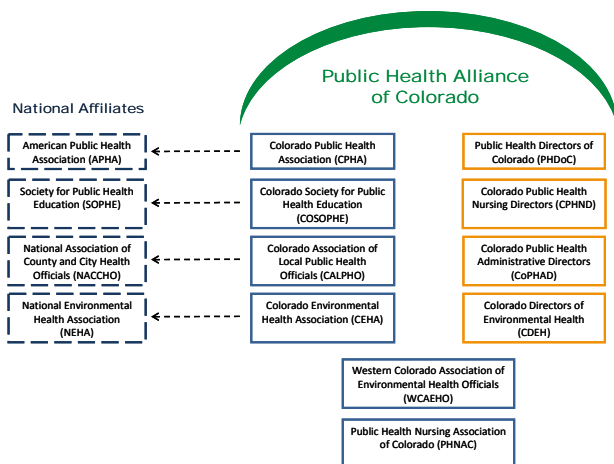


Public Health Laws

As this brief history illustrates, there has been an ongoing evolution of public health laws that impact the structure of the public health system and public health services. However, there are two significant events in history that have considerably impacted Colorado public health. The first was passage of the Sabin Health Laws of 1947 that were supported by data provided in the Buck Report of 1946. These laws reorganized the state health department and State Board of Health, authorized local public health agencies and appropriated funding for public health services. At the time, this set of laws brought the Colorado public health system up to meet the needs of the day. The second significant event in history was the passing of the Public Health Act of 2008. Not since 1947 had the legislature passed an equally comprehensive law to position the Colorado public health system to be able to effectively meet the needs of today and the future.

Public Health Organizations

The public health organizations in Colorado have had an interesting history of their own. These professional associations provide education, advocacy and professional development to strengthen the public health system and workforce. Currently, Colorado hosts several state affiliates of national associations including the Colorado Association of Local Public Health Officials (CALPHO), which is an affiliate of the National Association of County and City Health Officials; the Colorado Environmental Health Association; the Colorado Society for Public Health Education; and the Colorado Public Health Association. In addition, Colorado



has member organizations specific to the positions that individuals hold within local public health agencies (Public Health Directors of Colorado, Colorado Public Health Administrative Directors, Colorado Directors of Environmental Health, and Colorado Public Health Nursing Directors). General membership organizations also exist for public health nurses at any level (Public Health Nursing Association of Colorado) and environmental health professionals on the western slope (Western Colorado Association of Environmental Health Officials).

In 2007, these organizations came together under the umbrella of The Public Health Alliance of Colorado. The Alliance provides administrative support and works to connect the organizations in pursuit of common goals. These organizations and the professionals within them are a key part of successful implementation of the Public Health Act of 2008.

Public Health Partners

While the Act focuses on governmental public health, it is important to recognize that the public health system is much broader than local and state governmental health. For public health to work effectively, it must partner with and recognize the contributions of many other governmental entities, non-profit community based organizations and private business.

- Local Public Health & Environmental Health Agencies
- Environmental Agencies and Organizations
- Other State Agencies (Health Care Policy and Financing, Transportation, etc.)
- Health Care Providers
- Higher Education
- State Public Health & Environment Department
- Community-Based Organizations
- Philanthropic Organizations
- Colorado State Legislature
- Voluntary Health Organizations
- K-12 Education
- Health Insurers
- Employers
- Early Childhood Education

Goals for Colorado's Public Health System

As defined in the Act, "Public health" means the prevention of injury, disease, and premature mortality; the promotion of health in the community; and the response to public and environmental health needs and emergencies, and is accomplished through the provision of essential public health services. The scope of public health is broad, as are the following goals that were developed as part of this Plan. These goals provide a vision from which shared, comprehensive efforts can be directed to achieve more strategic recommendations which lay the foundation for improving Colorado's health.

- ❖ **Colorado's public health system will ensure optimal health for Coloradans from birth to old age.**
 - We will improve the distribution and quality of public health services, attend to health disparities, and address environmental conditions that directly impact health.
- ❖ **Colorado's public health system will ensure every Coloradan in every county has equal access to public health services.**
 - We will work to eliminate the geopolitical, environmental, socioeconomic, and cultural barriers that limit access to, utilization of, and quality of public health services.
- ❖ **Colorado's public health system will continuously improve the quality of its services and programs.**
 - We will demonstrate accountability and raise public health capacity by building systems, focusing on outcomes, adopting of measurable standards, and using knowledge gained through planning and evidence-based practices.
- ❖ **Colorado's public health system will effectively maximize the use of public health resources.**
 - We will work together to ensure practices, policies, and funding are aligned through planning to ensure public health resources are apportioned to meet the highest priority public health challenges.
- ❖ **Colorado's public health system will consistently communicate the value of public health.**
 - We will emphasize the demonstrable contributions to the public's health and elevate the public support necessary to develop sustainable, effective public health efforts.
- ❖ **Partnerships among Colorado's public health system stakeholders will be the driving force necessary for the statewide public health system to flourish.**
 - We will continue to build on collaborative relationships among CDPHE, public health agencies, and our private and public sector partners to achieve consensus on health priorities, leverage resources to address them, and continually develop a shared vision for public health in Colorado.
- ❖ **Colorado's public health system will develop, employ, and maintain a highly trained, competent workforce.**
 - We will commit to lifelong learning, link practice to formal education, and improve recruitment and retention strategies.
- ❖ **Public health begins with the community, and inclusion of and representation by community members is needed for successful public health initiatives.**
 - We will engage, encourage and empower constituents, as key stakeholders, coalitions, organizations, associations, and individuals to participate in public health activities.

Identification of Public Health Improvements in Colorado

As a first step toward realizing these goals, this Plan identifies recommendations for improving the public health system that were identified by the public health community. These improvements are intentionally focused on systems, because system improvements are fundamentally necessary to produce opportunities for optimal health.

| 2009 – 2014 Statewide Public Health System Improvement Recommendations | |
|--|--|
| System Priority | Key Recommendation |
| Core Services and Standards | <input type="checkbox"/> Adopt core public health services <input type="checkbox"/> Adopt quality standards |
| Assessment and Planning | <input type="checkbox"/> Ensure a comprehensive set of public health indicators are available <input type="checkbox"/> Develop a standardized approach to community health assessment <input type="checkbox"/> Establish a coordinated statewide planning process <input type="checkbox"/> Ensure public health planning capacity |
| Financing and Funding | <input type="checkbox"/> Adopt a revised local public health funding formula <input type="checkbox"/> Streamline contracting and funding processes |
| Public Health Roles, Relationships and Communications | <input type="checkbox"/> Continually improve state and local governmental public health agency communications <input type="checkbox"/> Develop training and support for new local public health agency directors <input type="checkbox"/> Evaluate the system of governmental public health organizations <input type="checkbox"/> Improve state and local coordination in policy development <input type="checkbox"/> Build a network among the Colorado State Board of Health, local boards of health and Boards of County Commissioners that serve as Boards of Health |
| Workforce Development | <input type="checkbox"/> Perform a regular and systematic assessment of the public health workforce <input type="checkbox"/> Use nationally developed professional competencies, for training, hiring and performance evaluation <input type="checkbox"/> Formally educate, expand and sustain the public health workforce <input type="checkbox"/> Develop an enhanced learning management system and provide online trainings <input type="checkbox"/> Increase workforce diversity by person and profession <input type="checkbox"/> Strengthen public health leadership at all levels |
| Data, Technology, and Public Health Informatics | <input type="checkbox"/> Establish a Public Health Informatics Advisory Board to provide guidance and structure <input type="checkbox"/> Adopt minimum infrastructure and data use standards, including a continuous review process <input type="checkbox"/> Develop information systems for authorized users to directly access data |

By implementing the recommendations in this plan, and acting on the improvement opportunities identified in the local planning process, Colorado will begin to realize the benefits of strategic and comprehensive planning. By the next five year cycle, the public health system will be able to develop a plan to more equitably, efficiently, and effectively provide services, addressing disparities in health among priority populations, and identify opportunities for optimal health among all Coloradans.

Recommendations for Improving Colorado's Public Health System

I. Core Services and Quality Standards

Core Services

The Public Health Act requires all county or district public health agencies organized under statute to provide, or assure the provision of and direct people to, core public health services. Identification of a set of core services that are appropriate to every local public health agency in Colorado, with consideration given to the needs of residents and visitors to the state; the capacity and resources available to deliver public health services; and the organizational structure of local public health agencies, is no easy task.

Key Points Interpreted from the Act

- The local public health agency can provide the service itself, refer to another organization, or contract with another agency or organization to provide the service, including neighboring counties. The agency has met this requirement if it can demonstrate that other providers offer this service sufficient to meet the local need.
- The scope of services delivered by a local public health agency should be determined by the need and may differ across agencies based on priorities, funding, and capacity.
- If sufficient resources are not available, the local public health agency shall set priorities for core public health service delivery, based on its plan, and then document the needed services not provided due to resource limitations.
- Public health agencies may provide additional services beyond core public health services if their population needs warrant it.
- Every local public health agency is required to conduct an assessment on the health of its population to determine needs, the resources in the jurisdiction, and the ability to deliver services, and then develop a local public health plan.

The core public health services drafted for inclusion in this plan allow flexibility for local public health agencies in the design and implementation of strategies, interventions, and activities necessary to meet public health priorities unique to their jurisdiction. The services also allow for integration between public health and environmental health, and recognize the importance of assessment and planning. These draft core services update the 1984 Basic and Optional Services to reflect the need for emergency response to public health threats and the evolution of prevention as a means to improve health, particularly with the prevalence of chronic diseases. Nearly every local public health agency is already meeting the requirement to provide or assure the provision of these draft core public health services.

Drafting Core Public Health Services

Members of the Public Health Act Advisory group reviewed the existing Colorado statutes, and examined other states' public health laws. An initial draft of the core public health services was developed by focus groups of public health professionals during the summer of 2009. Following input from local boards of health and boards of county commissioners, a rule making process will begin in 2010 for core public health services to be adopted by the Colorado Board of Health.

The full draft of the proposed core services is presented in Appendix III.

Quality Standards

To ensure core public health services are provided equitably and effectively, local public health agencies must also meet certain quality standards. The development of standards for the voluntary accreditation of local public health agencies is occurring on a national level. The Public Health Accreditation Board (PHAB) has developed a national voluntary accreditation program for local public health agencies that is currently in the beta-test phase. It is anticipated that interested local public health agencies will be able to apply for national accreditation in 2011.

Utilizing the 10 Essential Services as a framework, these national accreditation standards have evolved from the National Public Health Performance Standards Program's (NPHPSP) effort to improve the quality of public health practice. The National Association of County & City Health Officials (NACCHO) further contributed to the development of national standards by providing an Operational Definition of a Functional Local Health Department. In light of the national accreditation movement, Colorado's standards for the delivery of core public health services should optimally position local public health agencies for voluntary accreditation.

Given adoption of core public health services and standards for the delivery of those services, local public health agencies need to incorporate an assessment of their capacity and performance relative to those standards into their community health assessment and local planning efforts. By identifying areas for improvement and expansion, we begin building a system where core services are delivered effectively throughout the state.

10 Essential Public Health Services

1. Monitor health status to identify and solve community health problems.
2. Investigate and diagnose health problems and health hazards in the community.
3. Inform, educate, and empower individuals about health issues.
4. Mobilize public and private collaboration and action to identify and solve health problems.
5. Develop policies, plans, and programs that support individual and community health efforts.
6. Enforce laws and regulations that protect health and promote safety.
7. Link people to needed personal health services and assure the provision of health care.
8. Encourage a competent public health workforce.
9. Evaluate effectiveness, accessibility, and quality of personal and population-based health services.
10. Contribute to research into insightful and innovative solutions to health problems.

Core Services and Standards-continued

Strategic Recommendation 1—What do we need to do?

The Colorado Board of Health will adopt core public health services that are to be made available across the state. The core public health services should allow flexibility for local public health agencies to prioritize services, programs, and strategies based on community needs assessments.

Action Steps—How will we get there?

- Local and state public health agencies collaboratively identify core services that meet statutory requirements and allow flexibility to prioritize programs.
- Engage local boards of health in the process to define/support core services as well as additional services and programs that meet local public health needs.
- The Colorado Board of Health adopts, by rule, the core public health services.
- Local public health agencies will provide or ensure the provision of and direct people to public health core services based on priorities from a community health assessment.

How will this improve the Public Health System?

By identifying areas for improvement and expansion, we begin building a system where core services are delivered effectively to people regardless of where people live, work, and play in Colorado.

Leaders and Facilitators—Who will keep this moving?

Colorado Board of Health, Colorado Department of Public Health and Environment(CDPHE)

Partners —Who is needed to make this work effectively?

Local boards of health, local public health directors and agencies, Colorado Association of Local Public Health Officials (CALPHO)

What have we done thus far?

- The Public Health Act requires core services to be adopted.
- Draft core services have been developed based on input from public health professionals around the state.

Next Steps

- Local public health directors present draft core services to local boards of health.
- Input continues to be gathered for draft to be proposed in a rule making process.

Anticipated Timeline

| 2010 | 2011 | 2012 | 2013 | 2014 |
|-------------|--------|------|------|------|
| Rule-Making | Review | | | |

Core Services and Standards-continued

Strategic Recommendation 2—What do we need to do?

The Colorado Board of Health will adopt quality standards based on national standards to ensure effective delivery of the core services and to prepare local public health agencies and the state for voluntary national accreditation.

Action Steps—How will we get there?

- Complete the working draft of standards begun by the Public Health Act Advisory Group and develop recommendations for the process of standards review.
- Establish an on-going standards oversight committee with state and local representation to periodically review standards and processes for using standards.
- Provide technical assistance to agencies in meeting standards and provide information regarding the resources necessary to fully deliver high quality core public health services.
- Consider adopting ethics agreements as a standard.
- Incorporate the Culturally and Linguistically Appropriate Services (CLAS) Standards into the public health standards.
- Local public health agencies incorporate an assessment of their capacity and performance relative to those standards into their community health assessment and local planning efforts.
- The Colorado State Board of Health adopts, by rule, the quality standards.

How will this improve the Public Health System?

To ensure core public health services are provided equitably and effectively, local public health agencies must meet certain quality standards. In light of the national accreditation movement, Colorado's standards for the delivery of core public health services should optimally position local public health agencies for voluntary national accreditation.

Leaders and Facilitators—Who will keep this moving?

Colorado Board of Health, Public Health Act Advisory Group, CDPHE

Partners—Who is needed to make this work effectively?

Local boards of health, local public health directors and agencies, CALPHO

What have we done thus far?

- Reviewed other state's standards.
- Participated in Public Health Accreditation Board's request for review of draft standards.

Next Steps

- Track national progress of accreditation of local public health agencies and report voluntary participation and experiences of applicants.
- Connect national process for accreditation to the quality standards in Colorado.

Anticipated Timeline

| 2010 | 2011 | 2012 | 2013 | 2014 |
|--|------|--|------|---|
| Develop recommendations and form oversight committee | | Consider rule-making Develop technical assistance process | | Review and assessment of services and standards |

II. Assessment and Planning

Effective public health improvement initiatives must begin with a strategic and comprehensive planning process that brings local and state public health together to set priorities for public health in Colorado. This process begins with the creation of a statewide plan to improve the public health system across the state.

Public Health Indicators

Over the long term, public health system improvements are expected to yield improvements in the health of Coloradans; it is these outcomes that will ultimately determine the success of any improvement efforts. To understand the health status of a population, it is essential to monitor and evaluate the consequences of the determinants of health. Health status can be measured by birth and death rates, life expectancy, quality of life, morbidity from specific diseases, risk factors, use of ambulatory care and inpatient care, accessibility of health personnel and facilities, financing of health care, health insurance coverage, and many other factors. In order to measure and monitor improvements in the health of Coloradans, a uniform set of health status indicators is needed. These indicators will provide the basis for state and local health assessments.

Standardized Community Health Assessments

The Act provides a basis for a comprehensive planning approach by calling for local public health agencies to conduct Community Health Assessments and develop Local Public Health Improvement Plans. As of 2008, at least 24 local public health agencies had conducted a Community Health Assessment within the past five years. These assessments should be utilized to identify and prioritize local public health priorities.



Local Planning Capacity

With the adoption of Core Public Health Services and Standards for the delivery of services, local public health agencies should also assess their capacity and performance relative to those standards. When combined with the local Community Health Assessment, the assessment of core services delivery will provide local public health agencies with the information they need to develop plans for improving the public's health.

Assessment and Planning-continued

Strategic Recommendation 1—What do we need to do?

Ensure a comprehensive set of public health indicators, to include health status, behavioral risk, mental health, environmental health, oral health, health disparities, and social determinants of health. Measure, update, and make indicators available to local public health agencies in a timely manner to enable community health assessment and planning at the state and local levels.

Action Steps—How will we get there?

- Establish a multi-disciplinary, cross-sectoral advisory group to provide on-going guidance to CDPHE in the provision of public health indicators.
- Increase utilization of the current web based county/regional health profiles as the standard indicator set for the state.
- Refine current indicator set and add new indicators as resources and data allow.
- Create a set of environmental health indicators to be tracked at the state, regional and county level (where possible) and include environmental health indicators in profiles.
- Develop and implement a plan to identify indicators for which insufficient data currently exists.
- Add functionality to the health profiles website such as indicator ranking by county, graphing capacity, markers of statistical significance etc.
- Refine and update public health indicators as new data become available.

How will this improve the Public Health System?

The continued development and acceptance of standard public health indicators will provide a means for measuring and monitoring health status, including improvements in the health, and the determinants of health, of Coloradans. These indicators will provide a common set of public health data which local public health agencies can incorporate into their assessments and improvement plans.

Leaders and Facilitators—Who will keep this moving?

CDPHE, Advisory Group when formed, Surveillance Advisory Board

Partners—Who is needed to make this work effectively?

Local public health directors and agencies, Colorado School of Public Health and other academic partners, Colorado Directors of Environmental Health.

What have we done thus far?

- Website and regional profiles set up and available for use.
- Received grant to be part of national Environmental Public Health Tracking Network.

Next Steps

- Establish a multi-disciplinary, cross-sectoral advisory committee.

Anticipated Timeline

| 2010 | 2011 | 2012 | 2013 | 2014 |
|--|------|------|------|-------------------|
| Form advisory group, increase utilization of regional profiles website, develop and implement plan for expansion | | | | Refine and update |

Assessment and Planning-continued

Strategic Recommendation 2—What do we need to do?

Develop a standardized approach to community health assessment and provide technical assistance, tools, and templates for the collection and analysis of community-specific data, health improvement planning, and outcome evaluations in local public health agencies.

Action Steps—How will we get there?

- Convene a task force to develop a standard community/ state health assessment format acceptable to all public health agencies and sufficient to meet multiple CDPHE and local public health program requirements.
- Collect and catalogue high quality community health assessment tools (e.g., survey instruments, priority matrices, etc.).
- Develop a standardized instrument and conduct capacity assessments of state and local public health agencies' ability to deliver public health services, to include appropriate staffing, funding, facilities, and governance.
- Review community health assessments recently conducted by agencies and recommends acceptance or additions.
- Use community health assessments to inform local and state boards of health and determine local and state public health priorities.

How will this improve the Public Health System?

Community health assessments should be utilized to identify and prioritize local public health priorities, and when combined with the assessment of core services delivery, local public health agencies will have the information they need to develop plans for improving the public's health.

Leaders and Facilitators—Who will keep this moving?

CDPHE, CALPHO

Partners—Who is needed to make this work effectively?

Local public health directors and agencies, Colorado School of Public Health and other academic partners

What have we done thus far?

- As of 2008, at least 24 local public health agencies had conducted a community health assessment within the past five years.
- Training on community health assessments (MAPP model) has been conducted throughout state.

Next Steps

- Convene task force of experts, contractors, and users of community assessment tools.
- Review current community health assessments.
- Develop and pilot community health assessment process and capacity assessment tools.

Anticipated Timeline

| 2010 | 2011 | 2012 | 2013 | 2014 |
|---|---|------|------|--|
| Convene task force to develop tools and process | Local public health agencies conduct community health assessments as needed | | | Local assessments inform next statewide plan |

Assessment and Planning-continued

Strategic Recommendation 3—What do we need to do?

Establish a statewide public health planning process to help facilitate coordination between CDPHE and local public health agencies in achieving improved health status across jurisdictions.

Action Steps—How will we get there?

- Form an ongoing committee with representation from all sectors of the public health system to guide statewide public health planning efforts and identify planning processes and outcomes.
- Identify key public health and environmental outcomes that are common and relevant at the state and/or regional level.
- Review community health assessments to identify opportunities for improving the delivery of public health services and opportunities for regional cooperation and shared services.
- Develop a comprehensive, statewide plan to address key public health and environmental outcomes at the state and local level.
- Convene partners at a strategic planning summit to review progress on Act implementation and identify next steps.
- Begin preparing 2014 statewide public health improvement plan.

How will this improve the Public Health System?

Effective public health improvement initiatives must begin with a strategic and comprehensive planning process that brings local and state public health together to set priorities for public health.

Leaders and Facilitators—Who will keep this moving?

CDPHE

Partners—Who is needed to make this work effectively?

Local public health directors and agencies, Colorado School of Public Health and other academic partners

What have we done thus far?

- Planning is now in statute with Public Health Act of 2008.
- Office of Planning and Partnerships established at CDPHE.

Next Steps

- Bring planners together to identify tools and agree on processes.

Anticipated Timeline

| 2010 | 2011 | 2012 | 2013 | 2014 |
|-----------------------------------|--|------|------|---|
| Form statewide planning committee | Key public health and environmental outcomes are identified Form planning groups around state | | | Begin next 5 year cycle with statewide plan |

Assessment and Planning -continued

Strategic Recommendation 4—What do we need to do?

Develop a mechanism through which every local public health agency can access public health professional(s) with health planning skills in order to facilitate the process of assessment, prioritization, program development, and evaluation of public health issues.

Action Steps—How will we get there?

- Identify models for sharing assessment and planning resources, including personnel (regional planners, peer mentoring, etc).
- Connect students at the Colorado School of Public Health with local public health agencies to assist with the community health assessment process, including data collection and analysis.
- Identify faculty, consultants and state and local public health experts willing to assist.

How will this improve the Public Health System?

By the next five-year cycle, the public health system will be able to develop a comprehensive plan to more equitably, efficiently, and effectively provide services, address disparities in health among priority populations, and identify opportunities for optimal health among all Coloradans.

Leaders and Facilitators—Who will keep this moving?

CDPHE, CALPHO

Partners—Who is needed to make this work effectively?

Colorado School of Public Health Center for Public Health Practice and other academic partners, local public health agencies

What have we done thus far?

- Consultants, academic programs and students have assisted agencies with assessments.

Next Steps

- Identify resources available.
- Develop systems to connect resources with agencies.

Anticipated Timeline

| 2010 | 2011 | 2012 | 2013 | 2014 |
|--------------------------------|------|---|------|------|
| Identify resources and systems | | Ongoing support and evaluation of systems | | |

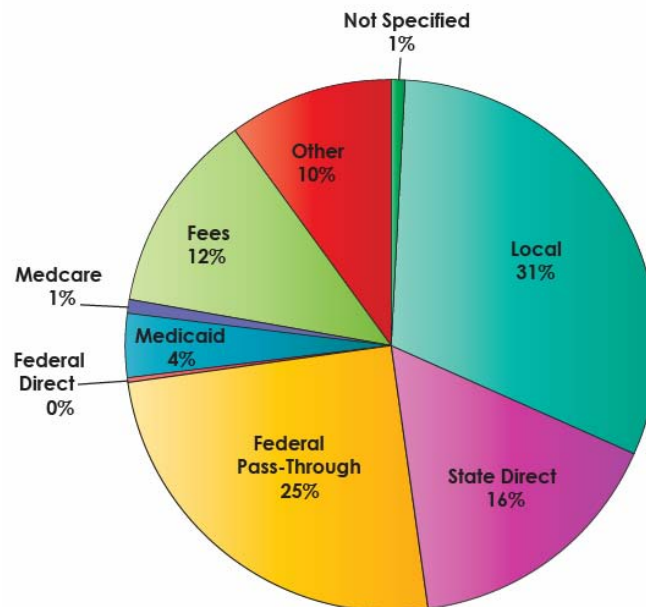
III. Financing and Funding Public Health

Financing for Core Services

Prior to the Public Health Act, allocation of state monies to local public health agencies differed according to the range of services required under the previous statutes. With the passage of the Act, the allocation of state monies to local public health agencies must be re-aligned to reflect any changing responsibilities of local agencies as they meet requirements to provide core public health services.

Local public health funding comes from a variety of sources. One primary source is the state general fund. These state dollars are appropriated annually by the state legislature, and are allocated, using a formula, and distributed to local public health agencies by CDPHE. To qualify for state monies, each county is required to contribute a minimum of \$1.50 per capita; most counties contribute much more than this. In addition to these state and local monies, local public health agencies receive federal funding, most of which is passed-through CDPHE. This funding is either distributed through funding formulas such those used by maternal and child health and emergency preparedness programs or through grants or contracts. Fees include regulatory fees and patient personal service fees. Other funds include foundation grants and private funding. Insurance payments such as Medicaid and Medicare, contribute a smaller portion of total revenue.

Percentage Distribution of Total Annual Local Public Health Agency Revenues, by Revenue Source



Among LPHAs reporting detailed revenue data
n=38
Source: 28 NACCHO Profile of Local Health Departments Colorado Specific Data

Improving the Funding Process

Re-aligning local public health funding to reflect the population served, and the range of services delivered, can be furthered by improving the funding process. Much of the funding for local public health is managed through different divisions within CDPHE. A common concern among local public health agencies is the amount of time devoted to managing multiple contracts with different reporting and accounting mechanisms. Streamlining CDPHE's current systems has long been a desire among local public health officials. Though this is a large task, with leadership support, stakeholder input, and dedicated staff time to identify issues, review best practices, and propose new and more efficient approaches, significant inroads can be made to improve the financing and funding of public health.

Financing and Funding Public Health –continued

Strategic Recommendation 1—What do we need to do?

Adopt, by rule of the Colorado Board of Health, a local public health funding formula that recognizes population served, core public health service needs, and supports a basic infrastructure.

Action Steps—How will we get there?

- Develop an accurate picture of the current resource allocation in the public health system.
- Establish a taskforce (state and local representatives) to develop a formula for the allocation of state monies to local public health agencies.
- Financial analysis of all state, local, and private public health funding.
- Catalogue current shared services agreements among agencies and counties.
- Identify current funding for core services and other funding distributed by formula.
- Develop and test new formula.
- The Colorado State Board of Health adopts, by rule, the new funding formula.
- Revisit the funding formula no less than every fifth year after passage of the initial formula.

How will this improve the Public Health System?

Aligning the allocation of state monies to local public health agencies with the provision of core public health services, based on the population served and the range of services delivered will ensure that services are available to Coloradans.

Leaders and Facilitators—Who will keep this moving?

CDPHE, local public health agencies, Colorado State Board of Health

Partners—Who is needed to make this work effectively?

Local boards of health, Colorado Counties Inc.

What have we done thus far?

- Tobacco funding formula workgroup research.
- Public Health Act requires that public health funds must be spent on public health and accounted for by county treasurers.

Next Steps

- Form taskforce and identify staff to work on project.
- Research other funding formulas and funding distributions.

Anticipated Timeline

| 2010 | 2011 | 2012 | 2013 | 2014 |
|----------------------------|------------------------------|----------------------|--------------------|------|
| Taskforce formed, analysis | Develop and test new formula | Consider rule-making | Ongoing evaluation | |

Financing and Funding Public Health –continued

Strategic Recommendation 2—What do we need to do?

Integrate and streamline contracting, grants administration, and funding process between the state and local public health agencies to align with core public health services and improve efficiency.

Action Steps—How will we get there?

- Secure leadership support.
- Establish a taskforce (inter-division CDPHE team with local representation) to develop a streamlined contracting, grants administration, and funding process.
- Research other states and other Colorado government agencies for models.
- Seek funding to support designated staff and/or use finance/management graduate students.
- Implement a pilot project with three to five local public health agencies to test and evaluate new system.
- Test new system with all local public health agencies.

How will this improve the Public Health System?

A common concern among local public health agencies is the amount of time devoted to managing multiple contracts with different reporting and accounting mechanisms. With leadership support, stakeholder input, and dedicated staff time to identify issues, review best practices, and propose new and more efficient approaches, significant inroads can be made to streamline CDPHE's current systems.

Leaders and Facilitators—Who will keep this moving?

CDPHE, Task force

Partners—Who is needed to make this work effectively?

Local public health agencies, School of Public Affairs, business schools

What have we done thus far?

- Some improvements in master contract process.
- Initial discussions within CDPHE.

Next Steps

- Seek leadership support and funding as needed.
- Form taskforce and identify staff to work on project.
- Research other agency processes.

Anticipated Timeline

| 2010 | 2011 | 2012 | 2013 | 2014 |
|---|------|------------------------------|------|--------------|
| Form taskforce, identify staff, develop pilot | | Implement and evaluate pilot | | Expand pilot |

IV. Public Health System Roles, Relationships, and Communications

The Public Health Act resulted in significant organizational changes that will continue to evolve as we further implement the Act. The processes for supporting these changes and working together in the new system are still developing. The roles and relationships between state and local public health agencies, across programs and organizations and in conjunction with local boards of health and county commissioners are critical to the successful implementation of the Act.

Public health is intricately tied to government, and elected officials as policy makers are part of the public health system. To develop sound policies and find public health champions, we need to increase social awareness of the purpose and value of a strong public health system. Ironically, public health successes, by their very nature, often go unnoticed and unacknowledged by the very people who benefit most, the public.

Communications and Networking

Many effective methods for communicating among public health agencies are in place, and an appreciation for the respective roles different professionals play in public health already exists. The Public Health Alliance currently includes ten organizations that support members based on their positions in local agencies or their professions in the public health field. Participation in these multiple organizations and meetings can be difficult for busy public health professionals, especially for smaller, geographically remote agencies, yet the knowledge shared and relationships built through these organizations could be integral to their work. While all organizations are valued, the issue of whether there are too many organizations to participate in effectively has been raised. Discussions are beginning to take place on how to increase participation, using new distance communications technology, but also on refining the organizational roles and identifying opportunities to coordinate efforts. This would not be the first time the organizations have re-structured to better suit the needs of members.

State and local collaborative decision-making has benefited from regional staff that work directly with the state, regional meetings among state and local public health, and from local advisory councils such as in emergency preparedness and response. These models could be expanded to further improve local/state collaborative decision-making and communication processes.

Orientation and Support for Directors and Boards of Health

The Act has expanded the responsibilities of local boards of health and public health directors in as many as 40 of Colorado's counties. These new directors and new members of local boards of health, now and in the future, should have available orientation training and guidance to quickly become effective public health leaders. County commissioners and county managers have also requested more information and understanding about public health and the Act's requirements.

Public Health System Roles and Relationships- *continued*

Strategic Recommendation 1—What do we need to do?

Continually improve public health system communications and collaborative relationships. Review and expand formal and informal networks for communication, technical assistance, mentors, consultants, and support teams available for state and local agencies.

Action Steps—How will we get there?

- Identify and catalogue current CDPHE and local public health staff that work in a regional framework as liaisons and technical consultants.
- Examine and integrate CDPHE and local public health methods for regular communication, regional meetings, site visits, etc. across multiple programs, agencies, and/or divisions.
- Strengthen CDPHE liaison function across divisions and enhance the use of best practice models for delivering public health services and addressing health disparities.
- Identify best practices for partnering across all sectors of the public health system.
- Expand use of technology to include more participants around the state.
- Collaborate on developing a system-wide communications plan using the expertise and connections among state/ local agencies and the professional organizations.

How will this improve the Public Health System?

Improving the connections among state and local agencies will build collaborative decision-making and communication processes. Public health can have a coordinated voice in promoting initiatives and legislative agendas.

Leaders and Facilitators—Who will keep this moving?

CDPHE, CALPHO, Public Health Alliance members

Partners—Who is needed to make this work effectively?

All divisions at CDPHE, local public health agencies, Office of Health Disparities, the Minority Health Advisory Commission (MHAC)

What have we done thus far?

- Community Dialogues, the Public Health Summit and Critical Input meetings have brought state and local public health agencies together.
- Models such as the regional Emergency Preparedness and Response staff and STEPP's peer mentoring program have been successful.

Next Steps

- Identify and evaluate CDPHE and local public health technical assistance and support processes.

Anticipated Timeline

| 2010 | 2011 | 2012 | 2013 | 2014 |
|-------------------------------------|------|---------------------------------|------|------|
| Evaluate and improve current system | | Develop and evaluate new models | | |

Public Health System Roles and Relationships- *continued*

Strategic Recommendation 2—What do we need to do?

Develop training and support for new local public health agency directors to work productively in Colorado’s public health system, with CDPHE, and with local boards of health and elected officials.

Action Steps—How will we get there?

- Connect new directors to the National Association of City and County Health Officials’ (NACCHO) 12-month *Survive and Thrive: Roadmap for New Local Health Officials* and evaluate effectiveness for Colorado.
- Evaluate and expand existing state-specific training programs.
- Create training, coaching and support opportunities to connect new directors with seasoned local public health directors and/or retired leaders.
- Establish a mechanism to continually improve training and support for new directors.
- Develop orientation manual for directors with up-to-date resources

How will this improve the Public Health System?

Leading an agency with a board of health, public demands, and complicated contractual requirements, in addition to managing public and environmental health professionals day to day and during critical disease outbreaks, requires training and on-going support to be effective.

Leaders and Facilitators—Who will keep this moving?

CALPHO, National Association of County and City Health Officials, CDPHE

Partners—Who is needed to make this work effectively?

Local boards of health, experienced public health directors, Colorado Counties, Inc.

What have we done thus far?

- Orientations for directors of public health nursing services have been conducted in the past.
- Public Health 101 offered throughout state to better understand the public health system.

Next Steps

- Identify new directors interested in scholarships for NACCHO program and apply to be state test site with NACCHO.
- Develop new training program and support system.

Anticipated Timeline

| 2010 | 2011 | 2012 | 2013 | 2014 |
|---------------------|------|------------------------|------|------|
| Program development | | Implement and evaluate | | |

Public Health System Roles and Relationships- *continued*

Strategic Recommendation 3—What do we need to do?

Evaluate the current system of local governmental public health organizations to be more efficient, inclusive, and effective. Improve state/ local coordination along with professional organizations in policy development.

Action Steps—How will we get there?

- Strategic planning meeting with all organizations' board officers, including state representation to clarify roles, purposes, and goals.
- Develop system for networking and sharing across local governmental public health organizations.
- Re-structure local governmental position-based organizations as needed.
- Collectively set and work together on public health policy agendas.
- Identify non-traditional public health partners with whom a broader policy agenda can be pursued.
- Increase participation in professional organizations and their educational offerings.

How will this improve the Public Health System?

With the new structure in Colorado's public health system, position-based organizations could also re-structure to share knowledge and build relationships with new local public health agencies. Additionally, improving the connections among state and local agencies will build collaborative decision-making and communication processes.

Leaders and Facilitators—Who will keep this moving?

Public Health Alliance, and board members from local governmental public health organizations (CALPHO and the organizations for public health directors, environmental health directors, nursing directors and administrative directors), CDPHE

Partners—Who is needed to make this work effectively?

Local public health agencies, the Minority Health Advisory Commission (MHAC)

What have we done thus far?

- Public Health Directors of Colorado have begun to re-write by-laws and consider solutions for communication issues with the expanded geography and increase in members.

Next Steps

- Discussions and consensus among boards of organizations.

Anticipated Timeline

| 2010 | 2011 | 2012 | 2013 | 2014 |
|-------------------|--|------|------|------|
| Board discussions | Implement/ evaluate any new structures and policy coordination | | | |

Public Health System Roles and Relationships- *continued*

Strategic Recommendation 4—What do we need to do?

Build a network with and among the Colorado State Board of Health, local boards of health and Boards of County Commissioners that serve as local boards of health.

Action Steps—How will we get there?

- Bring local boards of health together with State Board of Health at least yearly.
- Develop a standard public health orientation for new county commissioners and county managers.
- Inform local boards of health regularly on public health issues and build relationships with local public health agencies and state level public health.
- Explore model of establishing public health advisory committees for counties not having a local board of health that is distinct from county commissioners.
- Develop a strategic regular public health update for local boards of health.
- Consider establishing a state affiliate of the National Association of Local Boards of Health (NALBOH).
- Establish system to support local board of health state affiliate attendance at national association meetings.

How will this improve the Public Health System?

Public health is intricately tied to the governmental system and requires keeping boards of health and elected officials informed, engaged and supportive of the critical role public health plays in their jurisdictions. The Public Health Act has new requirements for local boards of health that were not defined for all counties prior to this year.

Leaders and Facilitators—Who will keep this moving?

CALPHO, Colorado Counties Inc

Partners—Who is needed to make this work effectively?

CDPHE, local boards of health, local public health agency directors

What have we done thus far?

- Applied for NALBOH mini-grant to hold organizational meeting at Winter Colorado Counties Inc. conference.

Next Steps

- Meet with local boards of health as requested.
- Complete guide for local boards of health

Anticipated Timeline

| 2010 | 2011 | 2012 | 2013 | 2014 |
|---------------------|------|--|------|------|
| SALBOH review | | Continue building relationships and strengthening boards of health | | |
| Develop orientation | | | | |

V. Workforce Development

In the face of emerging threats to the health of Coloradans and constantly evolving evidence-based best practices, the public health workforce must continually develop and maintain the skills to protect and promote health. Without these skills, the gap between challenges to the state's public health and the ability of the public health workforce to meet those challenges will undoubtedly widen. Historically, however, public health education in Colorado has lacked resources, systematic approaches and consensus regarding the necessary competencies of a highly effective workforce.

With the establishment of the Colorado School of Public Health, the maturation of several public health leadership programs, and a renewed commitment to training and retention of the current workforce, Colorado has never been better prepared to address these workforce challenges. Plans should be developed and implemented to improve the recruitment and retention of public health professionals and to provide for the education and training needs of the emerging, and the existing, public health workforce

Assessing the Workforce

Information about the Public Health workforce is difficult to compile as the field is broad and there is no formal, consistent licensure or certification across disciplines. Assessing the capacity of the public health workforce is needed to accurately identify the number of professionals, the array of their knowledge and skill sets, and the distribution of these professionals throughout Colorado. An ongoing system of assessment is necessary to track improvements in state and local public health agencies as well as the many other public health related organizations in Colorado. This ongoing assessment should replace intermittent needs assessments and will inform the development of applicable, meaningful, and useful trainings on an ongoing basis.

Training based on competencies

Standardizing public health competencies will raise the quality of performance for the current and incoming workforce, create accurate descriptions of individual disciplines, and provide a basis for monitoring improvements. Given acceptance and adoption of public health competencies, access to continuing education should be expanded so that practitioners throughout the state can further their knowledge and skills.

Recruiting and retaining a diverse workforce

Retaining trained employees in public health is necessary to maintain the current workforce, expand the future workforce, and to build a network of leaders. Career planning and connecting seasoned professionals as well as retired workers with incoming public health practitioners will advance and educate the public health workforce. Developing, hiring and retaining talented individuals with diverse training and backgrounds at all levels continue to be important strategies to improve the way in which public health serves communities.

Workforce Development –continued

Strategic Recommendation 1—What do we need to do?

Perform a regular and systematic assessment to document the range of professionals working in public health, and assess the public health workforce’s training and education needs to inform educational program development.

Action Steps—How will we get there?

- Establish a public health workforce development taskforce to develop ongoing system for assessing workforce development needs.
- Initiate regular and systematic assessment of the public health workforce’s training and education needs.
- Create system-wide annual report to communicate needs and market opportunities.
- Develop an enhanced learning management system to track and manage workforce training and provide the technological foundation for active and dynamic online trainings.

How will this improve the Public Health System?

Creating an ongoing system of assessment is necessary to track qualifications and training in state and local public health agencies as well as the many other public health related organizations in Colorado. This ongoing assessment will replace intermittent needs assessments and will inform the development of applicable, meaningful, and useful trainings on an ongoing basis.

Leaders and Facilitators—Who will keep this moving?

Workforce development taskforce once formed, Colorado School of Public Health Center for Public Health Practice

Partners—Who is needed to make this work effectively?

Colorado Area Health Education Centers (AHEC), the Colorado Health Institute, CALPHO, Public Health Alliance and member organizations, public health education/training providers, COTrain and national Train system, the Minority Health Advisory Commission (MHAC)

What have we done thus far?

- COTrain, Colorado Health Institute and academic partners collect data.
- Participated in 2008 NACCHO Profile survey of local public health agencies.
- Center for Public Health Practice established.

Next Steps

- Determine effective membership for public health workforce taskforce.
- Center for Public Health Practice continues to develop programs and systems.

Anticipated Timeline

| 2010 | 2011 | 2012 | 2013 | 2014 |
|--|------|------|-----------------------------|------|
| Form taskforce, identify data sources, enhance learning management systems | | | Evaluate, refine and update | |

Workforce Development –continued

Strategic Recommendation 2—What do we need to do?

Use nationally developed professional competencies, including certifications, to build training plans, and inform hiring decisions and performance evaluations for the public health workforce (e.g., Council on Linkages between Academia and Public Health Practice-Core Competencies, Association of Schools of Public Health MPH Core Competency Project.)

Action Steps—How will we get there?

- Develop consensus on public health core competencies across disciplines and begin using to develop the public health workforce.
- Develop training modules based on nationally recognized public health core competencies, cultural competencies and specialized competencies agreed upon in Colorado.

How will this improve the Public Health System?

Standardizing public health competencies will raise the quality of performance for the current and incoming workforce, create accurate descriptions of individual disciplines, and provide a basis for monitoring improvements. Given acceptance and adoption of public health competencies, access to continuing education should be expanded so that practitioners throughout the state can further their knowledge and skills.

Leaders and Facilitators—Who will keep this moving?

Workforce development task force (once formed), Colorado School of Public Health Center for Public Health Practice

Partners—Who is needed to make this work effectively?

Public Health Alliance, public health education/training providers, CDPHE, national organizations

What have we done thus far?

- Identified national public health competencies.
- Public health nursing competencies in Colorado are almost completed.

Next Steps

- Form workforce development taskforce.
- Gather all competencies for review.

Anticipated Timeline

| 2010 | 2011 | 2012 | 2013 | 2014 |
|--|------|---|------|------|
| Task force reviews and recommends competencies | | Develop and evaluate training based on competencies | | |

Workforce Development –continued

Strategic Recommendation 3—What do we need to do?

Formally educate, expand and sustain Colorado’s public health workforce, by bringing new students to the field and increasing the number of existing professionals in the public health workforce who are pursuing further public health education throughout the state.

Action Steps—How will we get there?

- Integrate public health into existing health profession “pipeline” programs that reach high school and college students.
- Provide service learning opportunities (e.g., service projects, internships, class projects, independent study) to students in public health related programs and connect practice to teaching and learning.
- Identify programs and scholarship opportunities for potential students.
- Identify academic programs throughout the state that can be strengthened with public health content.

How will this improve the Public Health System?

Public health and environmental health are complex fields that require practitioners to have formal education, in order to be effective in providing public health services based on quality standards and evidence-based practices.

Leaders and Facilitators—Who will keep this moving?

Colorado School of Public Health, Center for Public Health Practice, AHEC, other academic programs

Partners—Who is needed to make this work effectively?

The Public Health Alliance, CDPHE, CALPHO, local public health agencies

What have we done thus far?

- Colorado School of Public Health established in 2008.
- Minimum qualifications identified for directors of local public health agencies.

Next Steps

- Identify placement opportunities for students

Anticipated Timeline

| 2010 | 2011 | 2012 | 2013 | 2014 |
|--------------------|------|------|------|------|
| Ongoing activities | | | | |

Workforce Development –continued

Strategic Recommendation 4—What do we need to do?

Develop an enhanced learning management system to track and manage workforce training and provide the technological foundation for active and dynamic online trainings. Increase access to public health training and education to meet workforce needs throughout the state through satellite courses, distance learning or web-based courses.

Action Steps—How will we get there?

- Assess information technology (IT) capabilities and capacity of public health professionals to access continuing education.
- Catalogue sites (venues) around the state that have video conferencing/web-casting capabilities; include associated costs.
- Train educators and promote use of distance learning methodologies.
- Develop interactive and dynamic on-line training programs.
- Offer trainings for remote locations, worksites, and during non-work hours.
- Regularly offer and promote distance learning and satellite trainings.
- Assess utility of national TRAIN systems in other states.
- Evaluate, improve and/or incorporate COTrain’s capacity into a new, enhanced system for tracking continuing education.
- Link trainings to competencies for individuals to chart progress toward proficiency.

How will this improve the Public Health System?

In addition to formal training and education, it will be efficient to maximize resources by sharing expertise among state and local public health agencies/organizations and continuing to provide accessible continuing education.

Leaders and Facilitators—Who will keep this moving?

Colorado School of Public Health Center for Public Health Practice

Partners—Who is needed to make this work effectively?

Colorado Public Health Association (CPHA), Colorado Society of Public Health Educators (COSOPHE), Colorado Environmental Health Association (CEHA), Public Health Nurses Association of Colorado (PHNAC), CALPHO and other public health education/training providers.

What have we done thus far?

- Annual and semi annual conferences of professional organizations.
- COTrain developed and used by trainers and participants.
- On-line Limited English Proficiency training developed by CDPHE.

Next Steps

- The new Colorado School of Public Health’s Center for Public Health Practice continues to form structure and programs.
- Assessment and cataloguing of resources.

Anticipated Timeline

| 2010 | 2011 | 2012 | 2013 | 2014 |
|--|------|------|----------------------|------|
| Assess current IT systems and usability Continued development of distance learning and learning management systems | | | Evaluate and improve | |

Workforce Development –continued

Strategic Recommendation 5—What do we need to do?

Increase public health workforce diversity by race, gender, age, and by profession (e.g., all disciplines of public health).

Action Steps—How will we get there?

- Identify and implement workforce diversity recruiting, hiring, and retention strategies.
- Strategically use “pipeline” programs.
- Create agency workforce development plans that encourage multidisciplinary staffing and link staff planning with health and capacity assessments and public health improvement plans.

How will this improve the Public Health System?

Hiring and retaining talented individuals with diverse training and backgrounds at all levels continues to be an important strategy to improve the way in which public health serves communities.

Leaders and Facilitators—Who will keep this moving?

CDPHE Office of Health Disparities, Colorado School of Public Health Center for Public Health Practice

Partners—Who is needed to make this work effectively?

Human resources departments, public health agencies and organizations, AHEC, the Minority Health Advisory Commission (MHAC)

What have we done thus far?

- Office of Health Disparities Report and Strategic Plan
- Diversity plan at Colorado School of Public Health

Next Steps

- Communicate results of the 2008 NACCHO profile and other surveys that describe the make-up of the workforce.
- Identify best practices and share with hiring authorities.

Anticipated Timeline

| 2010 | 2011 | 2012 | 2013 | 2014 |
|---------------------|---|------|------|------|
| Identify strategies | Create agency workforce development plans | | | |

Workforce Development -continued

Strategic Recommendation 6—What do we need to do?

Strengthen public health leadership at all professional levels (e.g., early, mid, executive, and retired).

Action Steps—How will we get there?

- Promote the development of career ladders for public health professionals.
- Expand the use of formal and informal mentors, coaches, and advisors to guide public health professionals in all disciplines of public health.
- Promote leadership opportunities in professional organizations (e.g., CEHA, CPHA, COSOPHE, PHNAC.)

How will this improve the Public Health System?

Retaining trained employees in public health is necessary to maintain the current workforce, expand the future workforce and to build a network of leaders. Career planning and connecting seasoned professionals as well as retired workers with incoming public health practitioners will advance and educate the public health workforce.

Leaders and Facilitators—Who will keep this moving?

Regional Institute for Health and Environmental Leadership (RIHEL), CALPHO and professional organizations, human resource departments.

Partners—Who is needed to make this work effectively?

All agencies and organizations in the public health system

What have we done thus far?

- Long-standing Regional Institute for Health and Environmental Leadership.

Next Steps

- Identify best practices and communicate these to agencies and human resource departments.

Anticipated Timeline

| 2010 | 2011 | 2012 | 2013 | 2014 |
|--|------|------|------|------|
| Promote leadership programs and further develop mentoring across and within agencies and organizations | | | | |

VI. Data, Technology, and Public Health Informatics

Effective public health agencies rely on effective information systems. From conducting disease surveillance, to analyzing community data, to exchanging information with colleagues, state and local public health agencies need high quality, reliable and secure information systems that allow timely sharing of accurate and relevant public health data. These data, and the technologies used to manage them, have evolved into a field of practice known as Informatics. Public Health Informatics is the specific, systematic application of information, information processing, and information systems to public health practice (adapted from Competencies for Public Health Informaticians, 2008.)

In late summer, 2009, the Colorado School of Public Health's Center for Public Health Practice conducted an assessment of technology that supports business communications between the Colorado Department of Public Health and Environment's (CDPHE) Prevention Services Division and its partners: local health departments, contractors, and community groups. The full report describes the current technology available for use by CDPHE and local health departments and grantees, and assesses satisfaction with that technology. It also provides recommendations about future implementation of technology solutions and potential training needs. This work can serve as a baseline for planning and improvement in utilization of technology.

For many practical reasons, public health agencies, both at the local and state level, have individually pursued informatics solutions for challenges occurring within their own agency. The many unique, agency-specific informatics solutions, coupled with the de-centralized informatics decision making process make the seamless sharing of information across the public health system challenging. New technologies must be carefully evaluated for their potential to benefit, and their potential to burden, the systematic exchange of information among agencies.

Standards for Infrastructure and Use of Data

Agencies within Colorado's public health system may not have sufficient informatics architecture and infrastructure for information exchange. To ensure that every agency has the ability to fully integrate into a system-wide informatics network, standards should be developed to define this minimum level of informatics capacity. Additionally, standards should exist to ensure that data are readily transferable from agency to agency across the public health system and are appropriately informative for decision making.

Data Sharing

Public health agencies require timely access to a variety of data to assess the need for services, plan and evaluate service delivery, make resource allocation decisions, and monitor progress and threats to healthy environments. Additionally, the sharing of data across the system requires agencies to have immediate access to a shared system that allows input, management, extraction, and analysis of relevant public health data. Given today's technology, the need to actually bring the data together in a single location no longer exists; what is needed, rather, is the ability of an authorized user to access the data systematically, regardless of where it resides or who manages it.

Data, Technology, and Public Health Informatics-continued

Strategic Recommendation 1—What do we need to do?

Establish a Public Health Informatics Advisory Board to provide guidance and structure to informatics decision making that considers the benefit to the public health system, in addition to individual agencies. Advance strategies for effective use of newer information technology with accompanying policies as needed.

Action Steps—How will we get there?

- Establish Advisory Board that represents the interests of state and local public health, academic partners, private not-for-profit organizations, and other sectors within the public health system.
- Develop charter, structure and operating guidelines for Advisory Board.
- Propose standards and needed information technology and use of data policies.
- Develop policy recommendations for review and adoption of new and emerging technology.
- Develop a plan for exchanging emerging technology information at existing public health venues and events.

How will this improve the Public Health System?

Public health agencies require timely access to a variety of data. A Public Health Informatics Advisory Board can provide needed guidance and structure to informatics decisions that include consideration of the public health system, in addition to individual agencies. By developing standards and reviewing new technologies this board can ensure the sharing of information across agencies through the effective use of technology.

Leaders and Facilitators—Who will keep this moving?

Public Health Informatics Advisory Board once formed

Partners—Who is needed to make this work effectively?

Colorado School of Public Health, IT experts and users, Colorado Regional Health Information Organization (CORHIO)

What have we done thus far?

- IT Users Group, Colorado School of Public Health and others are studying issues.

Next Steps

- Identify potential board members.
- Research models in other states.

Anticipated Timeline

| 2010 | 2011 | 2012 | 2013 | 2014 |
|--------------------------|-------------------|--|------|------|
| Establish Board, charter | Develop standards | Continually review and develop needed policies, standards and communicate new enhancements | | |

Data, Technology, and Public Health Informatics-continued

Strategic Recommendation 2—What do we need to do?

Identify and adopt agency-level minimum architecture and infrastructure standards, including a continuous review process that supports integration of public health information needs across the system. Provide guidance and technical assistance for implementing these standards in local public health agencies. Standards for the collection, management, analysis, and exchange of public health data, information, and knowledge should be identified and widely distributed throughout the public health practice community.

Action Steps—How will we get there?

- Identify and adopt minimum infrastructure standards appropriate for local and state public health agencies.
- Assess local public health agencies' capacity and resources needed to implement minimum infrastructure standards.
- Develop a plan to assist local public health agencies in meeting minimum standards.
- Identify existing standards for data collection, information exchange, and knowledge management.
- Develop informatics competencies relevant to each public health worker's role in their organization.
- Implement public health informatics training system to address gaps.
- Develop an agency agreement to inform all staff of standards, and a role-appropriate professional agreement to adhere to the standards.

How will this improve the Public Health System?

State and local public health agencies need high quality, reliable and secure information systems that allow timely sharing of accurate and relevant public health data. Standards for a minimum level of informatics capacity will ensure that every agency has the ability to fully integrate into a system-wide informatics network. Standards will ensure that data are appropriately used and shared.

Leaders and Facilitators—Who will keep this moving?

Public Health Informatics Advisory Board once formed, Colorado School of Public Health

Partners—Who is needed to make this work effectively?

CDPHE, local public health agencies

What have we done thus far?

- Public health informatics survey conducted by Colorado School of Public Health.

Next Steps

- Public Health Informatics Advisory Board forms and identifies process.

Anticipated Timeline

| 2010 | 2011 | 2012 | 2013 | 2014 |
|----------------------------------|------|---|------|--------|
| Identify and recommend standards | | Educate agencies on standards Technical assistance | | Review |

Data, Technology, and Public Health Informatics-continued

Strategic Recommendation 3—What do we need to do?

Develop information systems that incorporate role-based security measures through which authenticated and authorized users may directly access data (aggregate or record-level, as appropriate) from relevant data repositories.

Action Steps—How will we get there?

- Catalogue needed/relevant data and which agencies have data.
- Establish Data Use and Reciprocal Sharing Agreements (DURSA) among agencies having data.
- Design system and user-interface tools, and solicit funds for system build-out.

How will this improve the Public Health System?

A more centralized informatics system will provide for the seamless sharing of information across the public health system. Currently, public health data reside in numerous repositories in different locations, and are managed by different agencies. Bringing these data together in a single (virtual) locale for ready access by the public health community will increase the usefulness of these data.

Leaders and Facilitators—Who will keep this moving?

Public Health Informatics Advisory Board once formed.

Partners— Who is needed to make this work effectively?

CDPHE, local public health agencies, and agencies across public health who manage relevant public health data.

What have we done thus far?

- The Colorado Health Information Dataset is a queryable compilation of public health data that provides electronic access to local level health data compiled by the Colorado Department of Public Health and Environment

Next Steps

- Identify data sources
- Collect sample agreements

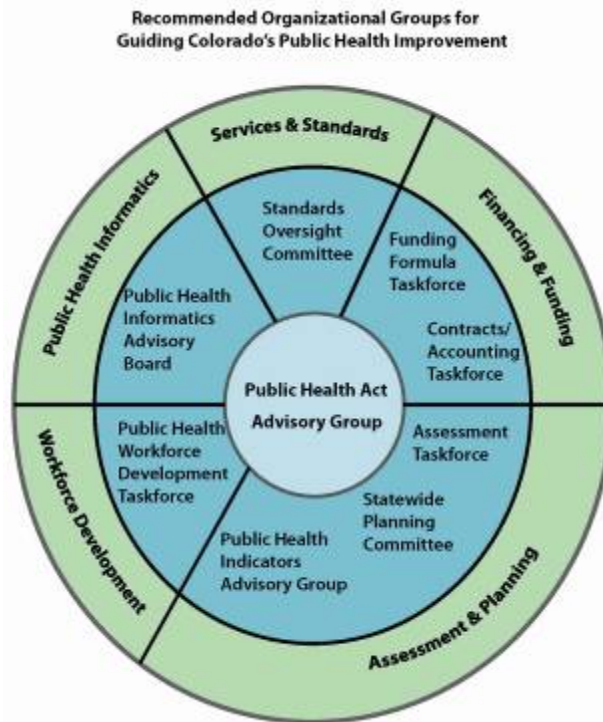
Anticipated Timeline

| 2010 | 2011 | 2012 | 2013 | 2014 |
|--|------|-----------------------------|------|------|
| Identify data sources and explore shared use | | Form agreements and monitor | | |

The following timeline table summarizes the recommendations and suggested action steps over the next five years. It is expected that this timeline will be revised as more detailed work plans are developed by the participating organizations.

Moving Forward

There is no “conclusion” to this plan as it is a living document. As we move forward, this plan provides Colorado’s public health partners across all sectors of the public health system with a roadmap to continuously strengthen the public health system. A number of the recommendations require task forces and advisory groups to provide guidance, expertise and ensure collaborative decision making. These proposed groups have yet to be formed, but are identified in the diagram below:



As a result of implementing this plan, Colorado’s public health system will benefit by having, for the first time, a comprehensive assessment of the health of Coloradans across the state. Disparities in health, and variations in the determinants of health, will be comprehensively examined relative to the resources the system has available to address the public health needs. Coordinated with local public health plans, Colorado’s next statewide public health plan will present an opportunity to expand our focus to more critically explore and include strategies for improving health outcomes.

At the same time, implementation of other recommendations in this plan will increase the capacity of Colorado’s public health system to address critical health priorities. These improvements will result in a more efficient, more effective system that equitably provides public health services to all Coloradans. In time, these system improvements will result in healthier communities, healthier environments, and healthier people.

Public health system partners across the state have collaborated to develop Colorado’s first statewide public health improvement plan. The planning and critical input process to date has been fruitful as we have learned from each other- across the state, across agencies, across professions and across positions. Much was accomplished in the drafting of this plan; much more will be accomplished as we move from Act to Action.

Colorado's Public Health Improvement Plan at a Glance

| | 2010 | 2011 | 2012 | 2013 | 2014 |
|--------------------------------------|--|---|------|--|------|
| Core Services & Standards | <p>Core Services</p> <ul style="list-style-type: none"> Local public health directors present draft core services to local boards of health Input continues to be gathered for draft to be proposed in a rule making process Core Services rulemaking <p>Standards</p> <ul style="list-style-type: none"> Form Standards committee | <p>Core Services</p> <ul style="list-style-type: none"> Review core services <p>Standards</p> <ul style="list-style-type: none"> Develop recommendations Consider standards rule-making Develop technical assistance process | | <p>Core Services & Standards</p> <ul style="list-style-type: none"> Review and assess the services and standards | |
| Assessment & Planning | <p>Public Health Indicators</p> <ul style="list-style-type: none"> Establish a multi-disciplinary, cross-sectional advisory committee Form advisory group, increase utilization of regional profiles website, develop and implement plan for expansion <p>Standardized Community Health Assessments</p> <ul style="list-style-type: none"> Convene task force of experts, contractors, and users of community assessment tools Develop community health assessment process and capacity assessment tool Convene task force to develop tools and process Bring planners together to identify tools and agree on processes <p>Statewide Planning Process</p> <ul style="list-style-type: none"> Form statewide planning committee <p>Local Planning Capacity</p> <ul style="list-style-type: none"> Identify resources and systems | <p>Standardized Community Health Assessments</p> <ul style="list-style-type: none"> Form advisory group, increase utilization of regional profiles website, develop and implement plan for expansion Local public health agencies conduct community health assessments as needed <p>Statewide Planning Process</p> <ul style="list-style-type: none"> Key public health and environmental outcomes are identified Form planning groups around state <p>Local Planning Capacity</p> <ul style="list-style-type: none"> Identify resources and systems Ongoing support and evaluation of systems | | | |
| Funding & Financing | <p>Financing for Core Services</p> <ul style="list-style-type: none"> Form taskforce and identify staff to work on project Research other funding formulas and funding distributions Taskforce formed, analysis Seek leadership support and funding as needed <p>Improving Funding Process</p> <ul style="list-style-type: none"> Form taskforce and identify staff to work on project Research other agency processes Form taskforce, identify staff, develop pilot | <p>Financing for Core Services</p> <ul style="list-style-type: none"> Develop and test new formula Form taskforce, identify staff, develop pilot Consider rule-making Implement and evaluate pilot Ongoing evaluation <p>Improving Funding Process</p> <ul style="list-style-type: none"> Implement and evaluate pilot Expand pilot | | | |

Colorado's Public Health Improvement Plan at a Glance

| | 2010 | 2011 | 2012 | 2013 | 2014 |
|---|---|--|--|------|------|
| Public Health System Roles, Relationships, & Communications | <p>Communications</p> <ul style="list-style-type: none"> Identify and evaluate CDPHE and local public health technical assistance and support processes <p>Orientation & Support</p> <ul style="list-style-type: none"> Identify new directors interested in scholarships for NACCHO program Develop new training program and support system Discussions and consensus among boards of organizations | <p>Communications</p> <ul style="list-style-type: none"> Evaluate and improve current system <p>Orientation & Support</p> <ul style="list-style-type: none"> Implement any new structures and evaluate Establish a SALBOH, develop orientation | <p>Communications</p> <ul style="list-style-type: none"> Develop and evaluate new models Implement and evaluate Implement any new structures and evaluate <p>Orientation & Support</p> <ul style="list-style-type: none"> Continue building relationships and strengthening boards of health | | |
| Workforce Development | <p>Assessing the Workforce</p> <ul style="list-style-type: none"> Center for Public Health Practice continues to develop programs and systems Form workforce development taskforce, identify data sources, enhance learning management systems <p>Training Based on Competencies</p> <ul style="list-style-type: none"> Gather all competencies for review Task force reviews and recommends competencies Identify placement opportunities for students <p>Learning Management System</p> <ul style="list-style-type: none"> Assess current IT systems and usability Continued development of distance learning and learning management systems <p>Recruiting and Retaining a Diverse Workforce</p> <ul style="list-style-type: none"> Report results of latest NACCHO profile Identify best practices and share with hiring authorities <p>Public Health Leadership</p> <ul style="list-style-type: none"> Identify best practices and communicate these to agencies and human resource departments Promote leadership programs and further develop mentoring across and within agencies and organizations | <p>Assessing the Workforce</p> <ul style="list-style-type: none"> Develop and evaluate training based on competencies Form taskforce, identify data sources, enhance learning management systems <p>Training Based on Competencies</p> <ul style="list-style-type: none"> Task force reviews and recommends competencies <p>Learning Management System</p> <ul style="list-style-type: none"> Assess current IT systems and usability Continued development of distance learning and learning management systems <p>Recruiting and Retaining a Diverse Workforce</p> <ul style="list-style-type: none"> Create agency workforce development plans Promote leadership programs and further develop mentoring across and within agencies and organizations <p>Public Health Leadership</p> <ul style="list-style-type: none"> Continue to identify placement opportunities for students | <p>Assessing the Workforce</p> <ul style="list-style-type: none"> Evaluate, refine and update <p>Training Based on Competencies</p> <ul style="list-style-type: none"> Develop and evaluate training based on competencies <p>Learning Management System</p> <ul style="list-style-type: none"> Evaluate and improve <p>Recruiting and Retaining a Diverse Workforce</p> <ul style="list-style-type: none"> Create agency workforce development plans <p>Public Health Leadership</p> <ul style="list-style-type: none"> Promote leadership programs and further develop mentoring across and within agencies and organizations Continue to identify placement opportunities for students | | |
| Data, Technology & Public Health Informatics | <p>Infrastructure</p> <ul style="list-style-type: none"> Identify potential board members Research models in other states Establish Board charter Public Health Informatics Advisory Board forms and identifies process Identify and recommend standards <p>Data Sharing</p> <ul style="list-style-type: none"> Identify data sources Collect sample agreements Identify data sources and explore shared use | <p>Infrastructure</p> <ul style="list-style-type: none"> Develop standards Identify and recommend standards <p>Data Sharing</p> <ul style="list-style-type: none"> Identify data sources and explore shared use | <p>Infrastructure</p> <ul style="list-style-type: none"> Continually review and develop needed policies, standards and communicate new enhancements Educate agencies on standards Technical assistance <p>Data Sharing</p> <ul style="list-style-type: none"> Form agreements and monitor | | |

Sources

- Caring for Colorado Foundation, *A Dialogue on Improving Public Health in Colorado*, 2008. Available at: <http://publichealthalliance.mediaroom.com/index.php?s=110>
- Centers for Disease Control and Prevention National Public Health Performance Standards Program, *Local Public Health Governance Performance Assessment Instrument Version 2.0*, 2008. Available at: <http://www.cdc.gov/od/ocphp/nphpsp/TheInstruments.htm>
- Centers for Disease Control and Prevention National Public Health Performance Standards Program, *Local Public Health System Performance Assessment Instrument Version 2.0*, 2008. Available at: <http://www.cdc.gov/od/ocphp/nphpsp/TheInstruments.htm>
- Centers for Disease Control and Prevention National Public Health Performance Standards Program, *State Public Health System Performance Assessment Instrument Version 2.0*, 2008. Available at: <http://www.cdc.gov/od/ocphp/nphpsp/TheInstruments.htm>
- Centers for Disease Control and Prevention and University of Washington School of Public Health and Community Medicine's Center for Public Health Informatics, *Competencies for Public Health Informaticians*, 2009. Available at: http://www.cdc.gov/InformaticsCompetencies/downloads/PHI_Competencies.pdf
- Centers for Disease Control and Prevention, *Public Health's Infrastructure: A Status Report*, 2001. Available at: <http://www.uic.edu/sph/prepare/courses/ph410/resources/phinfrastructure.pdf>
- Colorado Department of Public Health and Environment Public Information Office, *Health in Colorado: The First One Hundred Years, 1969*. Available at <http://www.coloradopublichealth.org/documents/HealthinColorado.pdf>
- Colorado Department of Public Health and Environment Prevention Services Division, *Moving Mountains: Reversing Trends in Colorado's Health and Health Care Spending Through Investments in Chronic Disease Prevention*, 2007. Available at: <http://www.cdphe.state.co/pp/chronicdisease/>
- Colorado Department of Public Health and Environment Office of Health Disparities, *Racial and Ethnic Health Disparities in Colorado*, 2009. Available at: <http://www.cdphe.state.co.us/ohd/>
- Colorado Department of Public Health and Environment Turning Point Initiative, *Colorado's Public Health Improvement Plan*, 2001. Available at: http://www.turningpointprogram.org/Pages/pdfs/hip/co_phip.pdf
- Colorado Department of Public Health and Environment, *Strategic Plan FY 2008-09*. Available at: <http://www.cdphe.state.co.us/ic/StrategicPlan.pdf>
- Colorado Governor's Blue Ribbon Panel on the Future of Public Health in Colorado. *Colorado's Health: A Public Affair*. 1991
- Illinois State Board of Health, *Illinois State Health Improvement Plan*, 2007. Available at: <http://www.idph.state.il.us/ship/index.htm>
- Institute of Medicine, *The Future of Public Health*, 1988. National Academies Press, Washington D.C.
- Institute of Medicine, *Who will Keep the Public Healthy? Educating Public Health Professionals for the 21st Century*, January 2003. National Academies Press, Washington D.C.
- Iowa Department of Public Health, *Redesigning Public Health in Iowa, Iowa Public Health Standards*, 2007. Available at: www.idph.state.ia.us/mphi/common/pdf/final_version.pdf

Minnesota Department of Health, *Building a Solid Foundation for Health: A Report on Public Health System Development*, 2009. Available at: <http://www.health.state.mn.us/divs/cfh/ophp/>

Missouri Institute for Community Health, <http://www.michweb.org/>

Montana Department of Public Health and Human Services, *A Strategic Plan for Public Health System Improvement in Montana*, 2000. Available at: <http://www.dphhs.mt.gov/PHSD/psi/pdf/psi-execsum.pdf>

National Association of County and City Health Officials, *2008 Profile of Local Health Departments*, 2009. Available at: <http://www.naccho.org/topics/infrastructure/profile/index.cfm>

National Association of County and City Health Officials, *Operational Definition of a functional local health department*, 2005. Available at: <http://www.naccho.org/topics/infrastructure/accreditation/upload/OperationalDefinitionBrochure.pdf>

National Association of County and City Health Officials, *Survive and Thrive: Roadmap for New Local Health Officials*, 2008.

New Hampshire Department of Health and Human Services Division of Public Health Services, *New Hampshire's Public Health Improvement Action Plan*, 2008. Available at: http://www.dhhs.state.nh.us/DHHS/DPHS/iphnh_publications.htm

North Carolina Department of Health and Human Services, *North Carolina Public Health Improvement Plan: Final Report*, 2008. Available at: http://www.ncpublichealth.com/taskforce/2008/improvement_plan_2008.pdf

Pennsylvania Department of Health, *State Health Improvement Plan: Health Pennsylvanians 2010 and Beyond*, 2006. Available at: <http://www.dsf.health.state.pa.us/health/cwp/view.asp?a=169&q=243631>

Province of British Columbia Ministry of Health Services, *A Framework for Core Functions in Public Health*, 2005. Available at: http://www.health.gov.bc.ca/prevent/pdf/core_functions.pdf

Public Health Accreditation Board, *Proposed Local Standards and Measures*, 2009. Available at: <http://www.phaboard.org/standards/>

Public Health Accreditation Board, *Proposed State Standards and Measures*, 2009. Available at: <http://www.phaboard.org/standards/>

Public Health Leadership Society, *Principles of the Ethical Practice of Public Health*, 2002. Available at: <http://www.apha.org/NR/rdonlyres/1CED3CEA-287E-4185-9CBD-BD405FC60856/0/ethicsbrochure.pdf>

Research!America, *Visions of a Healthier Future: 2000 Annual Report*. Available at: <http://www.researchamerica.org/uploads/annual.report2000.pdf>

University of Washington Turning Point National Program Office, Public Health Statute Modernization National Excellence Collaborative, *Model State Public Health Act: A Tool for Assessing Public Health Laws*, 2003. Available at: <http://www.hss.state.ak.us/dph/improving/turningpoint/PDFs/MSPHAWeb.pdf>

U.S. Census Bureau, *Small Area Income and Poverty Estimates for School Districts, Counties, and States*. <http://www.census.gov//did/www/saipe/index.html>

U.S. Department of Health and Human Services. *Healthy People 2010: Understanding and Improving Health*. 2nd ed., November 2000. U.S. Government Printing Office, Washington, DC.

Washington State Department of Health, *Public Health Improvement Plans*, 2002, 2004, 2006, and 2008. Available at <http://www.doh.wa.gov/hip/resources/reports/reports.htm>

APPENDIX I

Requirements for the Statewide Public Health Improvement Plan

The Act outlines a series of requirements that must be included in each statewide public health improvement plan submitted on a five year cycle. While every effort has been made to deliver on these requirements, this first statewide public health improvement plan is viewed as the beginning of a comprehensive, planned approach to the delivery of high quality public health services to every Coloradan. The specific statutory requirements, and the approach taken to address them in this plan, are described below.

- ❖ **Goals of the plan**

The goals are for the public health system to improve public health in Colorado.

- ❖ **Identification of specific recommendations for meeting these goals**

Potential areas for improving the public health system were identified by examining the existing public health infrastructure, cataloging existing public health improvement recommendations generated both in Colorado and nationally, and considering the current momentum for change.

- ❖ **Core public health services and standards for county and district public health agencies**

The process and recommendations for this requirement are included in the plan.

- ❖ **Detailed description of strategies to develop and promote culturally and linguistically appropriate services**

Detailed strategies to develop and promote culturally and linguistically appropriate services have been described by the CDPHE Office of Health Disparities. Additional strategies were recommended at a specific session on health disparities co-sponsored by the Offices of Health Disparities and Planning and Partnerships. The plan will support implementation of those strategies by including a focus on priority populations across all recommendations.

- ❖ **Development, evaluation, and maintenance of, and improvements to, an information infrastructure that supports essential public health services**

The plan includes several recommendations for improvements in this area in both "Assessment and Planning" with recommendations for expanding health indicators and in the section entitled "Data, Technology, and Public Health Informatics."

- ❖ **Detailed description of how the plan will support county or district public health agencies in achieving the goals of their county or district public health plans**

The plan includes many technical assistance and support activities that will be necessary to successfully achieve many of the recommendations. These activities will be best delivered by various partners within the public health system, including the Colorado School of Public Health, CDPHE, and county or district public health agencies.

- ❖ **A timeline for implementing various elements of the plan**

Each of the recommendations in the plan is accompanied by a series of actions that would lead to successful implementation of the recommendation. Timelines for initiating and completing these actions, as well as suggestions regarding the public health sector or agency best positioned to lead the activity, are included to the extent possible in the plan.

❖ **Measurable indicators of effectiveness and successes**

The recommended system improvements are important to modernizing the delivery of public health services, and over time should result in improvements to the population's health. To that end, the health status indicators will provide a means of measuring the long-term effectiveness of Colorado's public health system.

To meet the additional requirements for the Plan that are specified in the Public Health Act, a comprehensive, state-wide planning effort must first be undertaken. The Plan includes a recommendation that CDPHE engage the public health system to perform standardized local assessments of public health needs and resources statewide. Such an effort would result in a subsequent Public Health Improvement Plan and would further institutionalize planning and assessment as a core function of both state and local public health. When achieved, the recommended state-wide planning effort would include or address the following specific elements specified in the Public Health Act:

- ❖ *Recommendations for legislative or regulatory action*
- ❖ *Identification and quantification of existing public health problems, disparities, or threats at the state and county levels*
- ❖ *Identification of existing public health resources at the state and local levels*
- ❖ *Development of public and environmental health infrastructure that supports core public health functions and essential public health services at the state and local levels*
- ❖ *Explanation of the prioritization of one or more conditions of public health importance*
- ❖ *Detailed description of the programs and activities that will be pursued to address existing public and environmental health problems, disparities, or threats*
- ❖ *Detailed description of how public health services will be integrated and public health resources shared to optimize efficiency and effectiveness of the public health system*
- ❖ *A strategy for coordinating service delivery within the public health system*
- ❖ *Estimation of costs of implementing the comprehensive plan*

APPENDIX II Developing the Statewide Public Health Improvement Plan

With funding from the Caring for Colorado Foundation, the Colorado Department of Public Health and Environment, upon whom the Act confers the lead responsibility of developing this plan, created the Office of Planning and Partnerships. To advise the development of this plan, the Office of Planning and Partnerships retained and expanded the Advisory Group formed as part of Caring for Colorado’s Community Dialogues process. To carry out the process of developing this plan, the Office of Planning and Partnerships took a series of steps:

Step One: Gathering Knowledge, Identifying Priorities

- ❖ Review and examination of current and previous public health improvement initiatives in Colorado and in other states
- ❖ Consideration of national public health improvement initiatives, and public health accreditation
- ❖ Determination of priority opportunities to strengthen Colorado’s public health system

Step Two: Stakeholder Involvement

- ❖ Working groups of topical experts drafted initial recommendations
- ❖ Presentations and conversations with more than 100 public health professionals to review and revise initial proposals
- ❖ Public input from more than 350 public health professionals and stakeholders to fully develop draft recommendations

Step Three: Gaining Consensus

- ❖ Advisory Group critical appraisal of recommendations for feasibility, timeliness, and potential impact
- ❖ Posting of documents and compilation of input on a forum-style interactive website
- ❖ System-wide dialogue at Colorado’s public health and environmental health annual conferences with more than 300 participants

This first plan focuses on the short term outcomes in the following logic model:

Statewide Public Health Improvement Logic Model

| Inputs | Strategies | Outputs | Short-Term Outcomes | Intermediate Outcomes | Long-Term Outcomes |
|--|--|---|--|--|---|
| Existing Public Health Infrastructure | Establishment of Formalized Planning Office | Statewide Improvement Plan | Stronger Public Health System | Public Health System that Equitably, Efficiently, and Effectively provides the 10 Essential Public Health Services | Improvements in Determinants of Health |
| Existing Knowledge Base | Convene Partners as Advisors and Ad-hoc Workgroups | Improved Partnerships Across Multiple Sectors | Recognized Value of Public Health | | Improved Community, Environmental, and Personal Health Status |
| Colorado’s History and Momentum Toward Public Health Improvement | Stakeholder Input | Implement Statewide Quality Improvement | Public Health Science Base Is Strengthened | Integrated Community, Environmental, and Personal Health | |
| Experience of Other States on This Path | | Local Public Health Improvement Plans | Prepared for Accreditation | | Improved Quality and Quantity of Life |

APPENDIX III

DRAFT: CORE PUBLIC HEALTH SERVICES-2009

Pursuant to Colorado Revised Statutes (CRS) 25-1-502, "*Public Health*" means the prevention of injury, disease, and premature mortality; the promotion of health in the community; and the response to public and environmental health needs and emergencies. It is accomplished through the provision of the essential public health services. "*Core public health*" is to be defined by the State Board of Health and shall include, but need not be limited to, the assessment of population health status and health risks, development of policies to protect and promote health, and assurance of the provision of essential public health services.

All county or district public health agencies organized under the Colorado Revised Statutes are to provide, or assure the provision of and direct people to, public health core services. Public health core services shall meet the needs of the population served by the county or district. In some jurisdictions, the services may be provided by other counties, community organizations or agencies; however, the county or district public health agency has an obligation to assure that core services are available. See Colorado Revised Statutes (CRS) 25-1-506 (County and District Local Health Agencies). As part of the public health system, delivery of the core services shall be performed with attention to the 10 Essential Public Health Services as developed by the national Core Public Health Functions Steering Committee in 1994:

1. Monitor health status to identify and solve community health problems.
2. Investigate and diagnose health problems and health hazards in the community.
3. Inform, educate, and empower individuals about health issues.
4. Mobilize public and private collaboration and action to identify and solve health problems.
5. Develop policies, plans, and programs that support individual and community health efforts.
6. Enforce laws and regulations that protect health and promote safety.
7. Link people to needed personal health services and assure the provision of health care.
8. Encourage a competent public health workforce.
9. Evaluate effectiveness, accessibility, and quality of personal and population-based health services.
10. Contribute to research into insightful and innovative solutions to health problems.

Public health core services in Colorado shall include, but need not be limited to the following:

Assessment and Planning: Use assessment and planning methodologies to identify, evaluate and understand community health problems, priority populations, and potential threats to the public's health and use this knowledge to determine what strategies are needed to engage partners and improve health.

- Participate in integrated state, local, and national surveillance system(s) that quantify public health and environmental problems and threats.

- Complete a local public health improvement plan based on a comprehensive assessment of the community's health and environmental status at a minimum of every five years that includes:
 - The leading causes of disease, injury, disability and death of the population within the jurisdiction;
 - Health status and environmental indicators analyzed by income, age, race/ethnicity, and other socio/geo/demographic characteristics, where possible, to identify priority populations ;
 - Indicators of the determinants of health (or root causes), using data from a range of sources including the physical and social environment;
 - Identification of assets and resources which support the public health system in promoting and protecting health.

CDPHE will support the delivery of this service by collaborating in the collection, maintenance and provision of state and regional/county-level data on conditions of public health importance, including chronic and communicable disease; environmental hazards; health disparities; determinants of health; and injury. CDPHE will also provide technical assistance to local public health agencies in interpreting data and in public health planning.

Vital Records and Statistics: Record and report vital events (e.g., births and deaths) in compliance with Colorado statutes, Board of Health Regulations, and Office of the State Registrar of Vital Statistics policies. County and district public health directors shall act as the local registrar of vital statistics or contract out the responsibility of registrar in the area over which the agency has jurisdiction.

The state registrar shall designate vital records offices and may establish or designate additional offices to aid in the efficient administration of the system of vital statistics. CDPHE will coordinate services, provide training, analyze statistics, and make available compiled reports as appropriate.

Investigate and Control Communicable Diseases: Track the incidence and distribution of disease in the population and prevent and control vaccine-preventable diseases, zoonotic, vector, air-borne, water-borne and food-borne illnesses, and other diseases that are transmitted person-to-person.

- Collect and report disease information according to Colorado Board of Health Rules and Regulations.
- Investigate cases of reportable diseases and suspected outbreaks according to standard protocols and guidance provided by CDPHE.
- Assure immunizations using standard protocols, and monitor community immunization levels.
- Take appropriate measures to prevent disease transmission using methods specific to: infected persons (isolation, treatment, contact tracing/notification); contacts to infected persons (quarantine, prophylaxis); and the environment in which the communicable disease occurs (facility closure, disinfection).

CDPHE will work closely with local public health agencies in communicable disease investigation and control, particularly if the investigation crosses county lines or technical assistance is requested.

Prevention and Population Health Promotion: Develop, implement, and evaluate strategies (policies and programs) to enhance and promote healthy living, quality of life and wellbeing while reducing the incidence of preventable (chronic and communicable) diseases, injuries, disabilities and other poor health outcomes across the life-span.

- Promote physical (including oral) health, mental and behavioral health, and environmental health with emphasis on increasing health equity among priority populations (e.g., children, elderly, racial or ethnic populations).
- Address identified risk factors or behaviors (e.g., tobacco use, physical activity, nutrition, teen pregnancy, sexually-transmitted infections) based on community health assessment priorities.
- Inform, educate, and engage the public and policymakers to build community consensus and capability to promote/support evidenced-based strategies that enable healthy personal, organizational, and community behaviors and environments.
- Assure strategies are delivered in a culturally and linguistically appropriate manner.
- Coordinate efforts with governmental and community partners to link individuals to services such as primary care, maternal and child health care, oral health care, specialty care, and mental health care.
- Develop community specific solutions to address prevention priorities.
- Promote and participate in planning for sustainable environments that support healthy living.

CDPHE will assist and provide technical assistance, grants, and funding when available and convene planning groups and support coalitions as needed.

Emergency Preparedness and Response: Prepare and respond to emergencies with a public health or environmental health implication in coordination with local, state and federal agencies and public and private sector partners.

- Participate in All-Hazards planning, training, exercises, and response activities within the local jurisdiction.
- Serve as or support the “Emergency Support Function 8-Public Health” lead for the county, region, or jurisdiction.
- Implement an emergency communication strategy to inform the community and to activate emergency response personnel in the event of a public health crisis.
- Coordinate with county Emergency Managers and other first responders.

CDPHE supports EPR regionally and at the state level and makes every effort to coordinate activities with local public health agencies.

Environmental Health: Protect and improve air, water, land, and food quality by identifying, investigating, and responding to community environmental health concerns, reducing current and emerging environmental health risks, preventing communicable diseases, and sustaining the environment. These activities shall be consistent with applicable laws and regulations, and coordinated with local, state and federal agencies, industry, and the public.

- Prevent and control vector-borne (e.g. insects, rodents), air-borne, water-borne, food-borne, and other public health threats related to environmental hazards.
- Protect surface water and groundwater, including recreational waters and drinking water sources, and assure appropriate local regulatory oversight of onsite waste water systems.
- Assure the safety of food provided to the public at retail food establishments.
- Assure sanitation of institutional facilities (e.g., child care facilities, local correctional facilities and schools).

- Assure the proper storage, collection, treatment, and disposal of garbage, refuse, and solid and hazardous waste.
- Promote programs to minimize the amount of solid and hazardous waste and maximize the amount of recycling and reuse.
- Participate in land use planning and sustainable development to encourage decisions that promote positive public health outcomes (e.g., consideration of housing, urban development, recreational facilities and transport), and that protect and improve air quality, water quality and solid waste management.

Certain environmental quality management and oversight activities and functions are conducted only by state or federal agencies. CDPHE will inform and communicate with local public health agencies regarding these activities and functions so that roles and responsibilities are clearly defined, and, where appropriate, will coordinate with local public health agencies and with other state agencies on these activities and functions. Where appropriate and practicable, local public health agencies are encouraged to enter into contracts or other acceptable agreements with the state's environmental programs in order to perform local assessments, inspections, investigations, and monitoring programs.

Administration and Governance: Establish and maintain the necessary programs, personnel, facilities, information technology, and other resources to deliver public health services throughout the agency's jurisdiction. This may be done in collaboration with community and regional partners.

- Maintain competent, appropriate staffing and other resources to ensure capacity for delivery of core public health services.
- Meet minimum quality standards in the delivery of public health services throughout the jurisdiction.
- Implement policies and procedures regarding agency operations.
- Assure evaluation of core public health services provided in the jurisdiction.
- Establish procedures for working across jurisdictional boundaries and/or for requesting assistance in the delivery of public health services.
- Demonstrate effective financial management systems and management of the public health fund in accordance with C.R.S. 25-1-511.

CDPHE will coordinate with local public health agencies to promulgate administrative rules and regulations necessary to implement public health statutes.



Colorado Department of Public Health and Environment

office of

Planning & Partnerships

Colorado Department of Public Health and Environment

4300 CHERRY CREEK DR. S.
DENVER, CO 80246
PHONE: 303-692-2350
EMAIL: CDPH.EED.PLANNINGANDPARTNERSHIPS@CDPHE.STATE.CO.US
WEBSITE: [HTTP://WWW.CDPHE.STATE.CO.US/OPP/](http://www.cdphe.state.co.us/opp/)