MONTANA PUBLIC HEALTH

WORKFORCE DEVELOPMENT PLAN

Montana Public Health Workforce Development Group
JANUARY 2021 - DECEMBER 2023

ACKNOWLEDGEMENTS

The Montana Public Health Workforce Development Plan has been approved and adopted by the following organizations:

- Association of Montana Public Health Officials (AMPHO)
- Carroll College
- Montana Environmental Health Association (MEHA)
- Montana Public Health Association (MPHA)
- Montana Public Health Training Center (MPHTC), University of Montana (UM)
- Office of Rural Health, (ORH) Area Health Education Center (AHEC), Montana State University (MSU)
- Public Health System Improvement Office (PHSIO), Public Health and Safety Division (PHSD), Montana Department of Public Health and Human Services (DPHHS)
- Rocky Mountain Public Health Training Center (RM-PHTC), Colorado School of Public Health (Colorado SPH)
- Rocky Mountain Tribal Epidemiology Center (RMTEC)

SPECIAL THANKS

Special thanks to the following individuals for their contribution to this plan:

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EXECUTIVE SUMMARY

The Montana Public Health Workforce Development Group (WFD Group) works to address Montana's public health workforce needs, and improve the coordination, collaboration, and communication of public health training and education. By working together and sharing resources, the WFD Group addresses current public health workforce needs, specifically for local, tribal, and state health department staff. Montana's public health organizations formed the WFD Group to improve the public health workforce's ability to provide the 10 Essential Public Health Services[1], leading to improved health outcomes for all Montanans.

The Montana Public Health Workforce Development Plan (WFD Plan) is informed by multiple sources:

1. The results of the **Montana Public Health Workforce Assessment** (WF Assessment): a statewide survey of public health professionals' competency needs completed in 2019. Through the WF Assessment, three priority areas for public health training and education were identified:
   1. Financial Planning and Management Skills
   2. Public Health Science Skills
   3. Cultural Competency Skills

2. The **Montana State Health Improvement Plan** (SHIP): developed by the State Health Improvement Coalition using the results of the 2017 Montana State Health Assessment and guidance of Health People 2020. The MT SHIP identified five priority areas to focus on:
   1. Behavioral health
   2. Chronic disease prevention and self-management
   3. Motor vehicle crashes
   4. Healthy mothers, babies, and youth
   5. Adverse Childhood Experiences

3. The **National Consortium for Public Health Workforce Development** (NCPHWD) identified strategic skills. NCPHWD's Strategic Skills were developed out of a need to enhance existing scientific skills with strategic skill that transcend disciplines, supporting cross-sector collaboration and the leadership needed in the quickly evolving field of public health.
   1. Systems Thinking
   2. Change Management
   3. Persuasive Communication
   4. Data Analytics
   5. Problem Solving
   6. Diversity and Inclusion
   7. Resource Management
   8. Policy Engagement

The WFD Group develops training and education programs, and an associated three-year workforce development plan, to support statewide public health competency development and development of strategic skills, with the goal of enabling the public health workforce to realize the vision outlined in the MT SHIP. The schedule of these programs can be found on the [MPHTC website](#) and will be updated regularly.

The following WFD Plan is for the period of 2021-2023, addressing changes in workforce needs since the last plan was published. Progress made on the priority areas and related objectives in the WFD Plan will be reviewed each year and reported to the Montana Public Health System Improvement Task Force.

PURPOSE AND INTRODUCTION

Workforce development is key to improving public health services and protecting the public's health. Fundamental public health workforce development is identifying gaps in knowledge, skills, and abilities through the assessment of both the public health system and individual needs. Once identified, the gaps are addressed through targeted training and education programs. To effectively address Montana's public health workforce needs and competency gaps and strengthen the workforce to deliver public health services and protect the public's health, the WFD Group's organizations analyzed current statewide workforce data to create the 2021-2023 WFD Plan.

Data from the WF Assessment, the Association of State and Territorial Health Official's *Workforce Development Plan Toolkit*[2], and the Public Health Accreditation Board *Standards and Measures*[3], were utilized to create this WFD Plan. This plan will be used by the WFD Group to develop and deliver public health training and education programs, and can support state, local, and tribal health departments in conducting organizational workforce development planning.

PUBLIC HEALTH SYSTEM PROFILE

Montana is a rural state with roughly one million residents and nearly 147,000 square miles[4]. Over one-half of the population lives in rural or frontier areas. Montana has seven cities with a population greater than 25,000 persons and ranks 44 of 53 in state population[5].

The governmental public health system in Montana is comprised of 51 local, 7 tribal, and 1 state health departments. These agencies provide core public health services across the state and collaborate with organizations that support public health. Montana operates under a decentralized public health system, which gives local and tribal health departments autonomy from the State health department and have independent authority to deliver public health services. Local health departments carry out public health activities under authority delegated by the legislature to local boards of health and public health officers. Tribes have an independently governed tribal health departments as determined by their tribal governments. Health departments in Montana vary in size, infrastructure, and public health services provided.

While progress has been made to strengthen the capability health departments in Montana, the substantial variability in size, infrastructure, and services provided, creates an ongoing need for public health system improvement. To effectively respond to the health needs of Montanans, statewide public health workforce development is imperative.
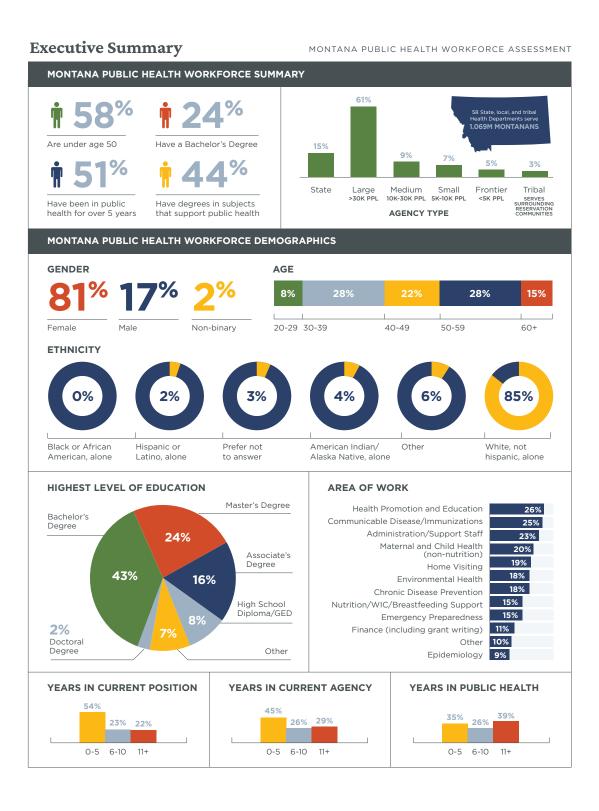
PURPOSE

The purpose of Montana's public health system is defined in Montana law in Title 50-1-105 of the Montana Code Annotated[6]. The following is an excerpt from the 2018 version of the Montana code:
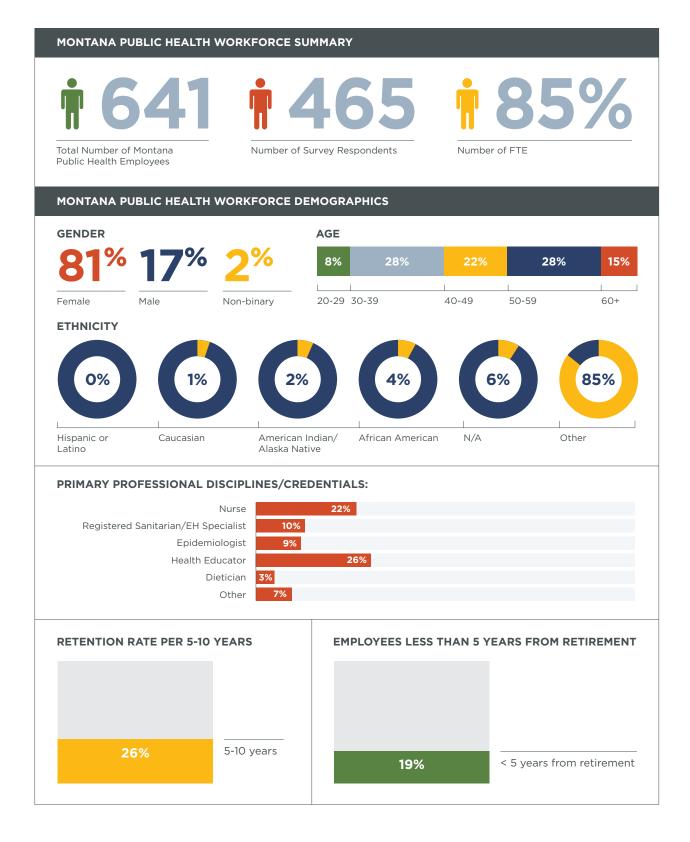
- It is the policy of the state of Montana that the health of the public be protected and promoted to the extent practicable through the public health system while respecting individual rights to dignity, privacy, and nondiscrimination.
- The purpose of Montana's public health system is to provide leadership and to protect and promote the public's health by:
  a. promoting conditions in which people can be healthy
  b. providing or promoting the provision of public health services and functions, including:
      i. monitoring health status to identify and recommend solutions to community health problems
      ii. investigating and diagnosing health problems and health hazards in the community
      iii. informing and educating individuals about health issues
      iv. coordinating public and private sector collaboration and action to identify and solve health problems
      v. developing policies, plans, and programs that support individual and community health efforts
      vi. implementing and enforcing laws and regulations that protect health and ensure safety
      vii. linking individuals to needed personal health services and assisting with needed health care when otherwise unavailable
      viii. to the extent practicable, providing a competent public health workforce
      ix. evaluating effectiveness, accessibility, and quality of personal and population-based health services; and
      x. to the extent that resources are available, conducting research for new insights on and innovative solutions to health problems
  c. encouraging collaboration among public and private sector partners in the public health system
  d. seeking adequate funding and other resources to provide public health services and functions or accomplish public health system goals through public or private sources
  e. striving to ensure that public health services and functions are provided for and public health powers are used based upon the best available scientific evidence; and
  f. implementing the role of public health services and functions, health promotion, and preventive health services within the state health care system

PUBLIC HEALTH WORKFORCE PROFILE

The Public Health Workforce Profile includes demographic data that was collected from the 2019 Montana Public Health Workforce Assessment. The data gathered comes from the 465 public health professionals that completed the WF Assessment in full and consented to being included in the report.

Executive Summary

MONTANA PUBLIC HEALTH WORKFORCE SUMMARY

58% Are under age 50

24% Have a Bachelor's Degree

51% Have been in public health for over 5 years

44% Have degrees in subjects that support public health

AGENCY TYPE

- State: 15%
- Large >30K PPL: 61%
- Medium 10K-30K PPL: 9%
- Small 5K-10K PPL: 7%
- Frontier <5K PPL: 5%
- Tribal SERVES SURROUNDING RESERVATION COMMUNITIES: 3%

58 State, local, and tribal Health Departments serve **1.069M MONTANANS**

MONTANA PUBLIC HEALTH WORKFORCE DEMOGRAPHICS

GENDER

- **81%** Female
- **17%** Male
- **2%** Non-binary

AGE

- 20-29: 8%
- 30-39: 28%
- 40-49: 22%
- 50-59: 28%
- 60+: 15%

ETHNICITY

- 0% Black or African American, alone
- 2% Hispanic or Latino, alone
- 3% Prefer not to answer
- 4% American Indian/ Alaska Native, alone
- 6% Other
- 85% White, not hispanic, alone

HIGHEST LEVEL OF EDUCATION

- Master's Degree: 24%
- Bachelor's Degree: 43%
- Associate's Degree: 16%
- High School Diploma/GED: 8%
- Other: 7%
- Doctoral Degree: 2%

AREA OF WORK

Health Promotion and Education	26%
Communicable Disease/Immunizations	25%
Administration/Support Staff	23%
Maternal and Child Health (non-nutrition)	20%
Home Visiting	19%
Environmental Health	18%
Chronic Disease Prevention	18%
Nutrition/WIC/Breastfeeding Support	15%
Emergency Preparedness	15%
Finance (including grant writing)	11%
Other	10%
Epidemiology	9%

YEARS IN CURRENT POSITION

- 0-5: 54%
- 6-10: 23%
- 11+: 22%

YEARS IN CURRENT AGENCY

- 0-5: 45%
- 6-10: 26%
- 11+: 29%

YEARS IN PUBLIC HEALTH

- 0-5: 35%
- 6-10: 26%
- 11+: 39%

CURRENT WORKFORCE DEMOGRAPHICS

MONTANA PUBLIC HEALTH WORKFORCE SUMMARY

641
Total Number of Montana Public Health Employees

465
Number of Survey Respondents

85%
Number of FTE

MONTANA PUBLIC HEALTH WORKFORCE DEMOGRAPHICS

GENDER

81% Female

17% Male

2% Non-binary

AGE

8%	28%	22%	28%	15%
20-29	30-39	40-49	50-59	60+

ETHNICITY

0%	1%	2%	4%	6%	85%
Hispanic or Latino	Caucasian	American Indian/ Alaska Native	African American	N/A	Other

PRIMARY PROFESSIONAL DISCIPLINES/CREDENTIALS:

Discipline	Percent
Nurse	22%
Registered Sanitarian/EH Specialist	10%
Epidemiologist	9%
Health Educator	26%
Dietician	3%
Other	7%

RETENTION RATE PER 5-10 YEARS

26% 5-10 years

EMPLOYEES LESS THAN 5 YEARS FROM RETIREMENT

19% < 5 years from retirement

FUTURE WORKFORCE

The Public Health field changes rapidly to face new and evolving challenges in our communities. We are currently witnessing major change due to the COVID-19 pandemic alone. Our workforce therefore must change too, requiring new education, resources and skills to meet these challenges. Our last WFD plan identified key areas of focus as: Performance Management and Improvement, Community Health Improvement Planning, Program Planning and Evaluation and Public Health Leadership and Management. Our new focuses are on Financial Planning, PH Science, Cultural Competency, Strategic Skills and Mental Health/Resiliency. By using multiple investigative resources, we were able to get a more thorough picture of what is needed by the PH workforce. The addition of strategic skills will allow professionals to work closer across sectors, and more rapidly evolve to new challenges in the field.

Our new knowledge of our workforce's demographics will allow finer tuning of training and education opportunities. These opportunities will be available online during COVID-19 and will be located in strategic cities when in-person. The majority of the workforce has earned a degree in a discipline that is not founded in public health, so the need for public health science is important. Fifty percent of the workforce will retire in 10 years, meaning we will be introducing many new professionals to the field who will require more public health science knowledge too. Professionals are performing new tasks in their positions, tackling a varied workflow while wearing many hats—it is important to manage mental health and the stress that this can cause.

Our understanding of the Montana public health workforce has greatly increased, allowing us to dig deeper into what is needed to make it successful. Our progress will be evaluated continuously with the vison to support our public health professionals in the best way we can.

PUBLIC HEALTH CONTINUED EDUCATION AND PROFESSIONAL REQUIREMENTS

Many public health professions require continuing education (CE) to maintain credentials, licenses, and continue practice. Licensures, credentials, and memberships held by Montana public health professionals, and associated CE requirements, are shown in the table below. The WF Group supports several public health CE requirements through training and education programs, including nursing and sanitarian credits for applicable trainings through the MPHTC, MPHA, ORH and RM-PHTC.

PROFESSION	CE REQUIREMENTS
Certified Public Health Practitioner (CPH)	50 CPH recertification credits every 2 years
Health Educator (CHES/MCHES)	75 CECHs every 5 years
Nursing (RN, LPN)	24 CEUs every 2 years
Physician (MD)	100 CEs every 2 years
Registered Dietitian (RD)	75 CPEUs every 5 years by the Commission on Dietetic Registration (CDR), License renewal every 5 years
Registered Sanitarian (RS)	15 CEUs every 2 years, license renewal annually
Social Worker (LSW, LISW, MSW, etc.)	20 hours every 1 year
Lactation Counselor (CLC)	18 CEs every 2 years
WIC Staff	12 CEs every 1 year, 6 CEs if part time

TRAINING AND EDUCATION NEEDS

OVERVIEW

Priority areas for public health training and education come from the work to be done, the skills required and the knowledge gaps identified in the 2019 Montana Public Health Workforce Assessment. The WF Assessment was based on the Core Competencies for Public Health Professionals[7] (Core Competencies) to establish training and education needs for the statewide public health workforce. The WFD Group utilizes the Core Competencies as the primary framework for Montana public health workforce development planning. The Core Competencies are foundational skills needed for professionals working in the practice, education, and research of public health. The competencies are organized into eight skill domains within public health and three career tiers of public health (See Appendix A).

The WF Assessment was sent to all 59 Montana health departments, and 50 elected to participate. Out of the 902 reported staff from statewide health departments, 465 completed the survey in full and consented to be part of the WF Assessment Report and WFD Plan. The following competency-based training and education needs are from the 465 survey respondents, accounting for 40 local health departments, 2 tribal health departments, and the state health department – Montana Department of Public Health and Human Services (DPHHS), Public Health and Safety Division (PHSD). The associated priority areas will be addressed over the next three years and the duration of this plan (2021-2023).

COMPETENCY-BASED TRAINING AND EDUCATION NEEDS

Respondents to the WF Assessment self-assessed their proficiency in the Core Competencies within the eight public health skill domains, alongside their motivation to participate in training associated with each competency. The sections below reflect the assessment results from all tiers of the Montana public health workforce. The competencies within each domain with the lowest reported skill levels and highest reported motivation for training are highlighted, to help prioritize the workforce's training and education needs and guide the WFD Group's activities over the next three years.

ALL TIERS – TIER 1, 2, AND 3

Across all tiers, the three **lowest skill domains** among the statewide public health workforce are:

1. Financial Planning and Management
2. Public Health Science
3. Cultural Competency

Across all tiers, the three skill domains with the **highest training motivation** among the statewide public health workforce are:

1. Leadership and System Thinking
2. Community Dimensions of Practice
3. Cultural Competency

These results provide an overview of statewide competency-based training and education needs of the public health workforce, covering every level of work. The competency domains with lowest skill and highest training motivation highlighted above are considered priority areas for the WFD Group to address through objectives and activities set out in this plan. Though the WFD Group primarily focuses on the training and education needs of the public health workforce overall, the following results for each tier provides direction on how to support individual needs while providing training and education to the workforce as a whole.

TIER 1

Public health professionals in Tier 1 are those who carry out day-to-day programmatic tasks and are not in management or supervisor positions.

Across Tier 1, the three **lowest skill domains** are:
1. Financial Planning and Management
2. Public Health Science
3. Cultural competency

Across Tier 1, the three skill domains with the **highest training motivation** are:
1. Leadership and System Thinking
2. Community Dimensions of Practice
3. Cultural Competency

TIER 2

Public health professionals in Tier 2 are those who work in a management or supervisory role.

Across Tier 2, the three **lowest skill domains** are:
1. Financial Planning and Management
2. Public Health Science
3. Leadership and Systems Thinking

Across Tier 2, the three skill domains with the **highest training motivation** are:
1. Leadership and System Thinking
2. Communication
3. Policy Development and Program Planning

TIER 3

Public health professionals in Tier 3 are senior management and leaders of health departments

Across Tier 3, the three **lowest skill domains** are:
1. Cultural Competency
2. Leadership and Systems Thinking
3. Financial Planning and Management

Across Tier 3, the three skill domains with the **highest training motivation** are:
1. Cultural Competency
2. Leadership and Systems Thinking
3. Public Health Science

OTHER TRAINING AND EDUCATION NEEDS

In addition to the self-identified competency gaps, it will be important to build professional's capacity across the strategic skill domains.

Strategic Skills allow public health professionals to address emerging needs as they evolve. These skills were identified by the de Beaumont Foundation:

1. Effective Communication
2. Data-based Decision Making
3. Justice, Equity, Diversity and Inclusion
4. Resource Management
5. Change Management
6. Systems and Strategic Thinking
7. Community Engagement
8. Cross Sectoral Partnerships
9. Policy Engagement

The Montana State Health Improvement Plan (SHIP) also prioritizes these areas:

1. Behavioral Health
2. Chronic Disease Prevention and Self-Management
3. Motor Vehicle Crashes
4. Healthy Mothers, Babies and Youth
5. Adverse Childhood Experiences

Meetings, committees, and internal assessments have shown emerging needs specific to COVID-19:

- Resiliency
- Stress Management
- Conflict Resolution
- Managing Grief

CHALLENGES AND SOLUTIONS

Many public health organizations in Montana provide training and education programs for public health professionals. Some organizations determine training and education priorities and allocate resources based on the organization's individual understanding of workforce needs. By sharing information, limiting duplication, supporting each other's efforts, and partnering on projects, public health workforce needs can be more effectively addressed. The WFD Group will continue joint coordination, collaboration, and communication to reduce the problems associated with this challenge. Additionally, Montana is a rural, frontier state in which access to training and education programs can be difficult. Through the WF Assessment, the WFD Group identified the following as the top three barriers to participating in training and education programs (outside of current COVID-19 challenges):

1. Location
2. Training Topic/Content
3. Funding

To address these participation barriers, the WFD Group will further ensure engaging learning opportunities both online and in-person in a variety of locations. Training topics and content will be relevant to the public health workforce through subject matter expert review. Training and education sponsorships will be offered when possible to allow attendance at training events.

PLAN IMPLEMENTATION

OVERVIEW

Alongside established priority areas (Financial Planning and Management Skills, Public Health Science Skills, Cultural Competency Skills), the WFD Group has identified workforce development objectives through 2023 in an effort to provide training and education programs in support of improving public health workforce competencies. The WFD Plan implementation plan is outlined below, including objectives, activities, roles and responsibilities, and communication and distribution. The following information builds on the previous WFD Plan, in place 2018-2020.

OBJECTIVES

Based on the priority areas identified by the WF Assessment and their alignment with strategic skills, the following are objectives the WFD Group will address through training and education programs over the next three years.

PRIORITY AREA	OBJECTIVE
Financial Planning and Management (PH Core Competency	By 2023, 90% of public health professionals surveyed agree or strongly agree that opportunities provided by the WFD Group have improved their financial planning and management skills.
Resource Management (Strategic Skill) Public Health Science (PH Core Competency)	Competency Codes: 7A1, 7A2, 7A4, 7A5, 7A6, 7A7, 7A8, 7A9, 7A10, 7A13, 7A14, 7B4, 7B9, 7B10 By 2023, 90% of public health professionals surveyed agree or strongly agree that opportunities provided by the WFD Group have improved their public health science skills. Competency Codes: 6A2, 6A3, 6A5, 6A6, 6A7, 6A8, 6A9
Cultural Competency* (PH Core Competency) Diversity & Inclusion (Strategic Skill)	By 2023, 90% of public health professionals surveyed agree or strongly agree that opportunities provided by the WFD Group have improved their cultural competency skills. Competency Codes: 4A3. 4A4, 4A5, 4A6, 4C6

It should be noted that the Public Health Foundation is currently revising the Public Health Core Competencies and the WFD Plan will reflect those changes when they are finalized. The Cultural Competency domain will likely see the greatest changes to better capture needed skills and improve outdated language.

Given the importance of being able to work across sectors in order to address Montana's complex public health challenges and achieve the vision of the SHIP, the WFD Group will also prioritize the Strategic Skill of Systems Thinking.

PRIORITY AREA	OBJECTIVE
Leadership and Systems Thinking (PH Core Competency) Systems Thinking (Strategic Skill)	By 2023, 90% of public health professionals surveyed agree or strongly agree that opportunities provided by the WFD Group have improved their systems thinking skills. Competency Codes: 8A2, 8A5, 8A8, 8B5

ACTIVITIES

For each objective, the WFD Group will provide training and education programs to support workforce competency development (See Appendix B). These training and education programs are linked to the Core Competencies and are designed, delivered, and evaluated using adult learning principles and models.

ROLES AND RESPONSIBILITIES

This section provides information regarding roles and responsibilities related to the implementation of the WFD Plan. The table below identifies organizational roles and responsibilities for the implementation of this plan.

ORGANIZATION	ROLES AND RESPONSIBILITIES
AMPHO	Promote WFD Group training and education programs.
Carroll College	Promote WFD Group training and education programs.
MEHA	Promote WFD Group training and education programs.
MPHA	Promote WFD Group training and education programs. Provide training and education opportunities related to financial planning and management, public health sciences, and cultural competency. Maintain records for MPHA offered training and education programs. Monitor and evaluate training and education programs. Track progress made towards WFD Group objectives.

ORGANIZATION	ROLES AND RESPONSIBILITIES
MPHTC, SPCHS, UM	Coordinate and facilitate meetings for WFD Group. Coordinate routine updates and annual progress reviews. Coordinate WF Assessment and maintain WFD Plan. Promote WFD Group training and education programs. Provide training and education opportunities related to financial planning and management, public health sciences, and cultural competency. Offer weekly public health wellness seminars that are open to the public health workforce outside of UM. Maintain records for MPHTC, UM offered training and education programs. Monitor and evaluate training and education programs. Track progress made towards WFD Group objectives.
ORH, AHEC, MSU	Promote WFD Group training and education programs. Provide training and education opportunities related to Public Health Science. Maintain records for ORH, AHEC, MSU offered training and education programs. Monitor and evaluate training and education programs. Track progress made towards WFD Group objectives.
PHSIO	Provide staff support to MPHTC and WFD Group. Promote WFD Group training and education programs. Provide training and education programs related to financial planning and management, public health sciences, and cultural competency. Maintain records for PHSIO offered training and education programs. Monitor and evaluate training and education programs. Track progress made towards WFD Group objectives.

ORGANIZATION	ROLES AND RESPONSIBILITIES
RM-PHTC	Promote WFD Group training and education programs. Design and offer high-quality and engaging, primarily distance-based training and education opportunities related to that build skills in the areas of diversity, equity, inclusion, and systems thinking, among other topics. Maintain records for RM-PHTC offered training and education programs. Monitor and evaluate training and education programs. Track progress made towards WFD Group objectives. Provide instructional design support for MT entities looking to offer learning opportunities to build skills among public health professionals. Research and share findings with MT WFD Group related to workforce development efforts to support addressing complex public health issues through learning.
RMTEC	Promote WFD Group training and education programs.

COMMUNICATION AND DISTRIBUTION

MPHTC will maintain the WFD Plan and make it publicly available on the MPHTC website[8]. The WFD Plan will be distributed to public health leadership and staff of state, local, and Tribal health departments through email announcements, newsletters, calendars, and websites operated by WFD Group member organizations. Public health competency-based training and education programs provided by the WFD Group member organizations will be shared with the statewide public health workforce through email announcements, newsletters, calendars, and websites.

MONITORING AND EVALUATING PROGRESS

REVIEW AND MAINTENANCE

The Montana Public Health Workforce Development Group will conduct an annual review of the WFD Plan each fall at an in-person meeting, coordinated by MPHTC. The annual review will include a discussion of emerging public health workforce needs, update to the WFD Group's training calendar, and individual reports from member organizations on progress made towards the achievement of the WFD Group's workforce development objectives. Training and education program updates will be provided by WFD Group organizations regularly via email and bi-monthly meetings and added to the WFD Plan's training calendar by the MPHTC.

TRACKING AND MONITORING

A calendar will be used to track training and education programs provided by the WFD Group's organizations. By maintaining a WFD Group calendar, training and education programs will better address the public health workforce priority areas for improvement identified by the WF Assessment. See the WFD Group training and education program calendar in Appendix B.

To monitor progress made on the public health workforce development objectives established by this plan, the WFD Group calendar will include the following information:

- Training/education program date, title, and description
- Priority area/public health core competency domain(s) addressed
- Organization providing training/education program

All organizations are responsible for supplying the information listed above for provided trainings and education programs to MPHTC, which will regularly update the WFD Group calendar. Organizations will also maintain training and education program records, such as attendance, materials, and evaluations, to track and monitor impact on statewide public health workforce development.

TRAINING DESIGN, IMPLEMENTATION, AND EVALUATION

The WFD Group has committed to applying four adult education models to design, implement, and evaluate public health training and education programs, with a more detail outlined in Appendix B:

1. Bloom's Taxonomy – learning objectives
2. the Learning Pyramid – knowledge retention
3. the Kirkpatrick Model – training evaluation
4. the Knowles Adult Learning Theory – principles of andragogy

By integrating principles found in the four adult education models into the design, implementation, and evaluation of training and education program, the WFD Group can measure effectiveness and demonstrate progress made in the achievement of the workforce development objectives. See Appendix B for guidance for designing, implementing, and evaluating training and education programs.

Using a Likert scale-based survey, the WFD Group's organizations will assess training and education effectiveness using evaluation questions (See Appendix B for example). Evaluations should take the four education models into account, and include a question related to the associated workforce development objective. Evaluation results and reports will be communicated by each organization at the WFD Group's annual meetings to monitor progress towards the achievement of the workforce development objectives.

CONCLUSION

The Montana Public Health WFD Plan outlines a plan for the Montana Public Health Workforce Development Group to support and develop a knowledgeable, skilled, and adaptable statewide public health workforce. The WFD Plan is a living document that will grow through feedback and assessment of the workforce for whom this plan is designed. With a strategic approach and collaborative effort, the WFD Group will help the public health workforce to create a healthier Montana.

RESOURCES

1. 10 Essential Public Health Services, CDC, CSTLTS:
   https://www.cdc.gov/publichealthgateway/publichealthservices/essentialhealthservices.html

2. Workforce Development Plan Toolkit, ASTHO
   https://www.astho.org/Accreditation-and-Performance/Workforce-Development-Plan-Toolkit/Home/

3. Standards and Measures for Initial Accreditation, PHA Board
   https://phaboard.org/standards-and-measures-for-initial-accreditation/

4. Montana, Data Commons
   https://datacommons.org/place/geoId/30

5. Cities in Montana by Population, World Population Review 2020
   https://worldpopulationreview.com/states/cities/montana

6. TITLE 50. HEALTH AND SAFETY, MCA
   https://leg.mt.gov/bills/mca/title_0500/chapters_index.html

7. Core Competencies for Public Health Professionals, PHF
   http://www.phf.org/resourcestools/pages/core_public_health_competencies.aspx

8. Montana Public Health Training Center, MPHTC, UM
   http://health.umt.edu/mphtc/

APPENDIX A

COMPETENCIES, SKILLS, AND TIERS

Public Health Core Competency/Skill Domains:

1. Analytical/Assessment
2. Communication
3. Community Dimensions of Practice
4. Cultural Competency
5. Financial Planning and Management
6. Leadership and Systems Thinking
7. Policy Development/Program Planning
8. Public Health Sciences

PUBLIC HEALTH CAREER TIERS

- **Tier 1 includes:** Employees who carry out day-to-day tasks of organization. Not in management/ supervisory position. Responsibilities include data collection and analysis, fieldwork, program planning, outreach, communications, customer service, and program support.
- **Tier 2 includes:** Employees in a management or supervisory role. Responsibilities include developing, implementing, and evaluation programs; supervising staff; establishing and maintaining community partnerships; managing timelines and work plans; making policy recommendations; and providing technical expertise.
- **Tier 3 includes:** Senior management and leaders of public health organizations. Typically have staff who report to them, may be responsible for overseeing major programs or operations of the organization, setting a strategy and vision for the organization, creating a culture of quality within the organization, and working with the community to improve health.

APPENDIX B

TRAINING RESOURCES

ADULT EDUCATION MODELS

Bloom's Taxonomy is an education classification system which defines stages of thinking and learning. This classification system is hierarchical and through training and education, public health learners should be encouraged to move from having basic understanding to applying learned skills. From lowest to highest, the stages are:

1. Remember
2. Understand
3. Apply
4. Analyze
5. Evaluate
6. Create

The Learning Pyramid, or Cone of Learning, is an education model that suggest training and education include discussion, demonstration, practice as ways to develop selected competencies. Interaction during training and education promotes deeper learning and longer-term retention of knowledge and skills.

The Kirkpatrick Model is used to evaluate training and education program outcomes, including learner reactions, learning, behavior, and results. This model supports the improvement of training and education programs and determines whether intended learning outcomes were met.

The Knowles Adult Learning Theory provides guidance on training and education programs for the adult learner, and encourages teachers to maintain five main assumptions:

1. Self-Concept – Because adults are at a mature developmental stage, they have a more secure self-concept than children. This allows them to take part in directing their own learning.
2. Past Learning Experience – Adults have a vast array of experiences to draw on as they learn, as opposed to children who are in the process of gaining new experiences.
3. Readiness to Learn – Many adults have reached a point in which they see the value of education and are ready to be serious about and focused on learning.
4. Practical Reasons to Learn – Adults are looking for practical, problem-centered approaches to learning. Many adults return to continuing education for specific practical reasons, such as entering a new field.
5. Driven by Internal Motivation – While many children are driven by external motivators – such as punishment if they get bad grades or rewards if they get good grades – adults are more internally motivated.

GENERAL POST-TRAINING EVALUATION QUESTIONS AND PURPOSE

POST-TRAINING EVALUATION QUESTIONS	QUESTION PURPOSE
I understood the learning objectives and achieved them through the training.	Training was clear and realistic
I found the training content to be clear and easy to follow.	Content was understandable
I will be able to apply what I learned to my work.	Subject matter was relevant
My learning was enhanced by the knowledge and experience of the trainer.	Trainer was expert
I found the trainer to be well prepared and effective in delivery.	Trainer was organized and successful
I was engaged and actively involved in the training.	Trainer was engaging
I feel that the time allotted for the training was sufficient.	Scheduled time was adequate
My expectations were met by the training.	Training went as expected
I found the training to be interesting and enjoyable.	Training was engaging

TRAINING EVALUATION TEMPLATE

Training Title & Date	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1) I understood the learning objectives and achieved them through the training.					
2) I found the training content to be clear and easy to follow.					
3) My understanding of the subject matter has improved since participating in the training.					
4) I will be able to apply what I learned to my work.					
5) My learning was enhanced by the knowledge and experience of the trainer.					
6) I found the trainer to be well prepared and effective in delivery.					
7) I was engaged and actively involved in the training.					
8) I feel that the time allotted for the training was sufficient.					
9) My expectations were met by the training.					
10) I found the training to be interesting and enjoyable.					
11) I would recommend this training to others.					
12) What was the most helpful portion of this training and why?					
13) What was the least helpful portion of this training and why?					
14) What can we do to improve this training?					
15) Other comments or suggestions:					