Catalyzing a Public Health Workforce Movement in Colorado: At the Nexus of Strategic Direction and Actionable Data

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Colorado's Governmental Public Health System

- **Decentralized:** Local Public Health Agencies (LPHAs) are primarily divisions of county governments, except 4 multi-county agencies
  - Current structure largely determined by Colorado's 2008 Public Health Act
  - 55 agencies in total delivering public and environmental health services through our Core Public Health Services framework
  - Roughly 400 CBOs and service providers also partner or contract with public health agencies on social supports, referred care, food access, and much more (Chris Jones, 2023)
  - Counties over 100k population must have an independent board of health (appointed by county commissioners)
  - Combined public & environmental health state agency (CO Department of Public Health & Environment - CDPHE)

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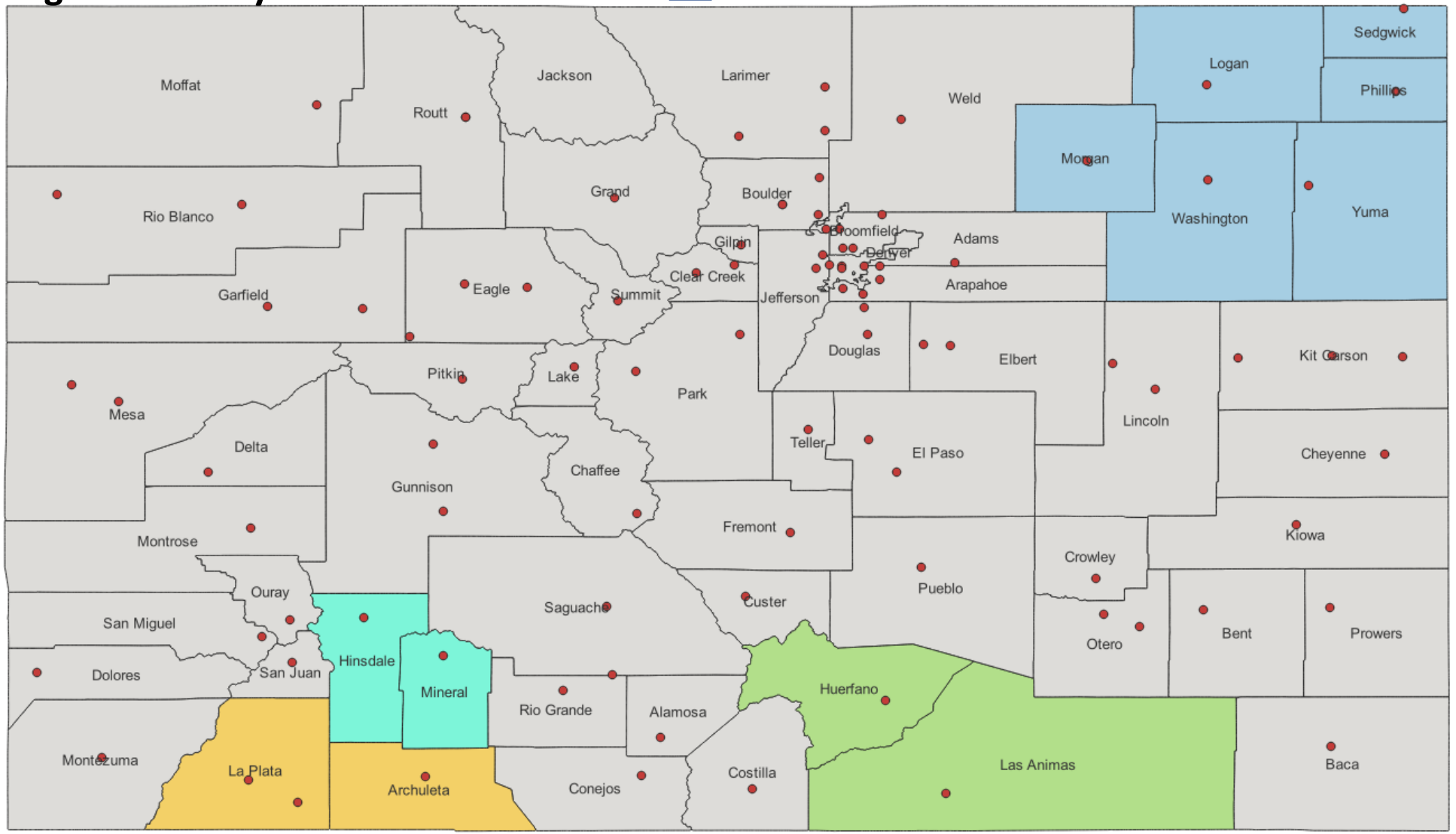
Colorado Local Public Health Agencies – July 2023

Single-county agencies

Multi-county agencies

Agency office and clinic locations



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Colorado's Governmental Public Health System

THE "WHAT"

Core Public Health Services in Colorado:
Required by the 2008 Public Health Act for all Local Public Health Agencies (revised in 2019)

1. Communicable Disease Prevention, Investigation, and Control
2. Environmental Public Health
3. Maternal, Child, Adolescent, and Family Health
4. Chronic Disease, Injury Prevention, and Behavioral Health Promotion
5. Assess to and Linkage with Health Care

Colorado's Governmental Public Health System

THE "HOW"

Foundational Public Health Capabilities – Supports all Core Services and additional local priorities

1. Assessment and Planning
2. Communications
3. Policy Development and Support
4. Partnerships
5. Organizational Competencies
6. Emergency Preparedness and Response
7. Health Equity and Social Determinants of Health

Pandemic context: *Trauma and political repercussions are still major factors in Colorado's PH workforce ecosystem*

Breakup of two multi-county agencies that were pillars of Colorado's local public health system:

SAN JUAN BASIN public health	• Splitting into two, single-county agencies (La Plata & Archuleta) at end of 2023 • Has been an anchor institution and public health innovator in southwest Colorado for over 70 years
Tri-County Health Department	• 1 of 3 counties (Douglas) left in January 2022. 2 remaining counties (Adams and Arapahoe) split in January 2023 • In operation for over 70 years, became a deep well of public health expertise that also supported other LPHAs and CDPHE

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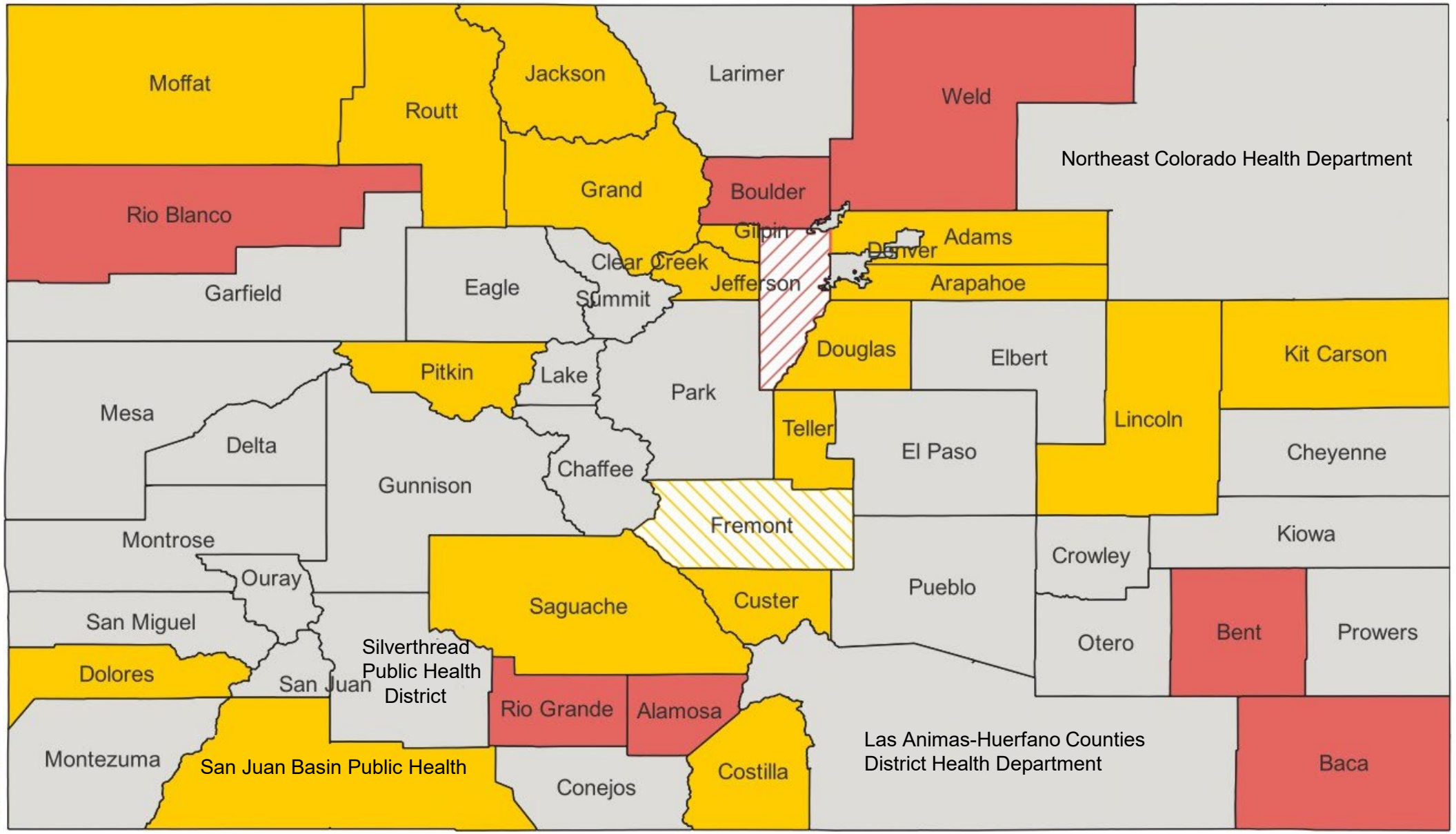
Local Public Health Agency Director Turnover
March 2020 - June 2023



Pandemic context: *Trauma and political repercussions are still major factors in Colorado's PH workforce ecosystem*

Colorado LPHA Director Turnovers, 2017-2022

2017	2018	2019	2020	2021	2022
8	5	7	11	12	6

<u>Strength in Recovery</u>

- Like in every state, our public health directors and their staff experienced harassment, moral injury, threats, and other traumas, BUT

- **They are now more determined, more experienced, and more valuable than before**

Transformation Context: *momentum for strategic change was building before the pandemic*

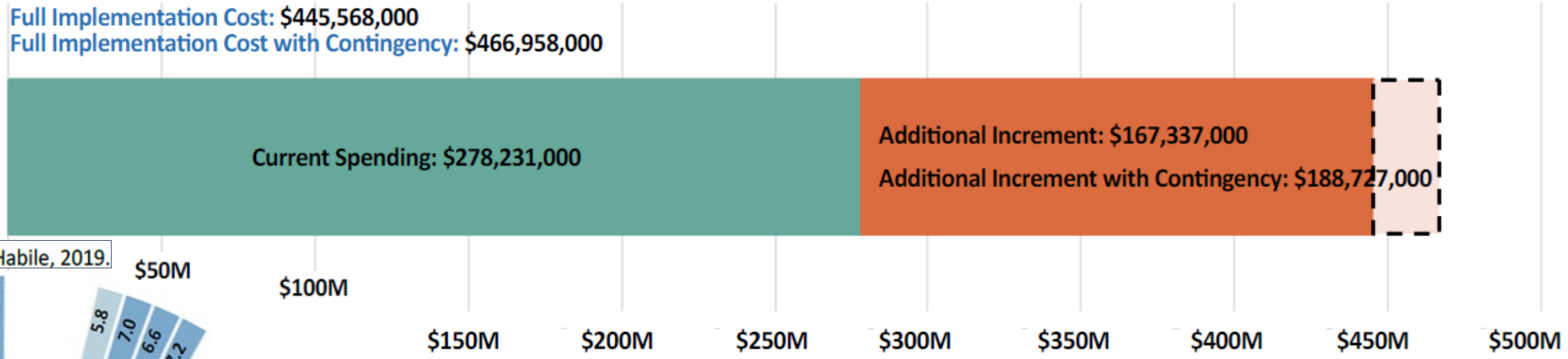
- Attaining predictable, sustainable, and flexible base funding would need to overcome:
  - invisibility of public health and conflation with medical care
  - cultural & institutional bias against investing in prevention
  - opposition to collective enterprise, primacy of individual responsibility
  - siloed funding and data structures, restrictive processes
  - inability to track and measure public health spending and system-level performance

We needed an advocacy movement,

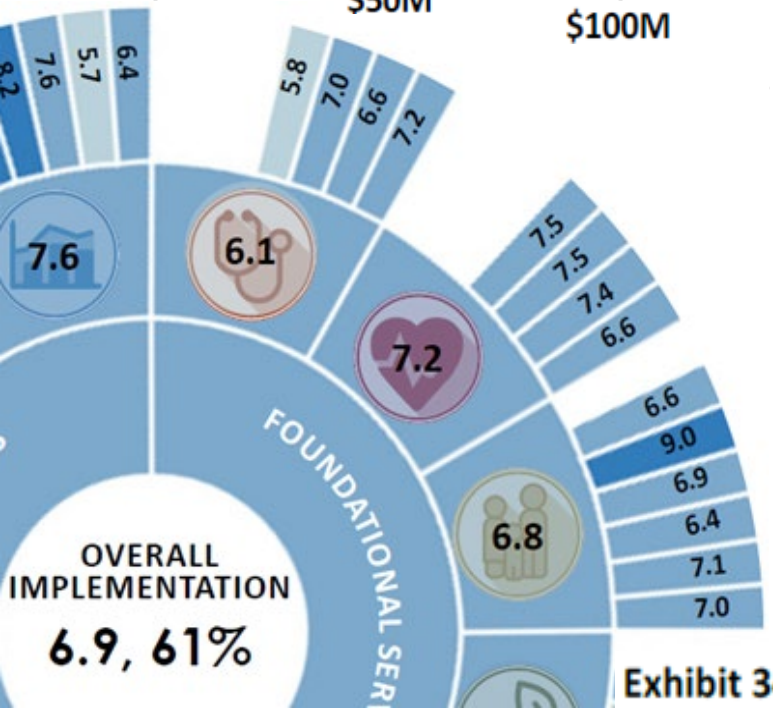
So we launched Public Health Transformation

Transformation Context: *2019 Core PH Services Cost & Capacity Assessment*

Exhibit 43. Full Implementation Cost, including Additional Increment of Cost, of Fully Implementing CPHS with Contingency

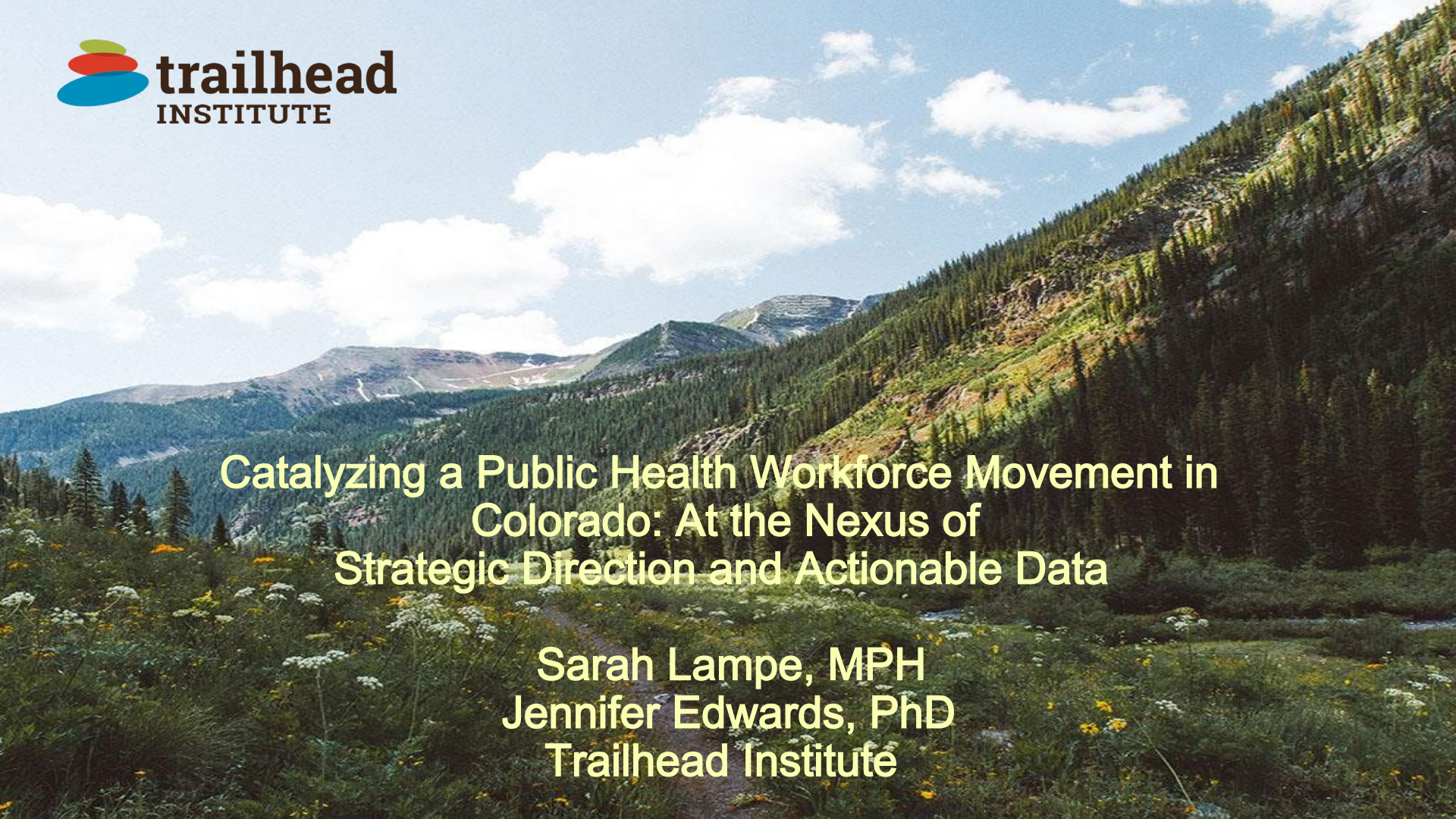


Source: Habile, 2019.



- Transformation meetings, workgroups, and steering committee paused for pandemic
- But momentum carried to immediate workforce needs

Exhibit 34. Current Degree of Implementation of CPHS for Colorado Systemwide, 2018

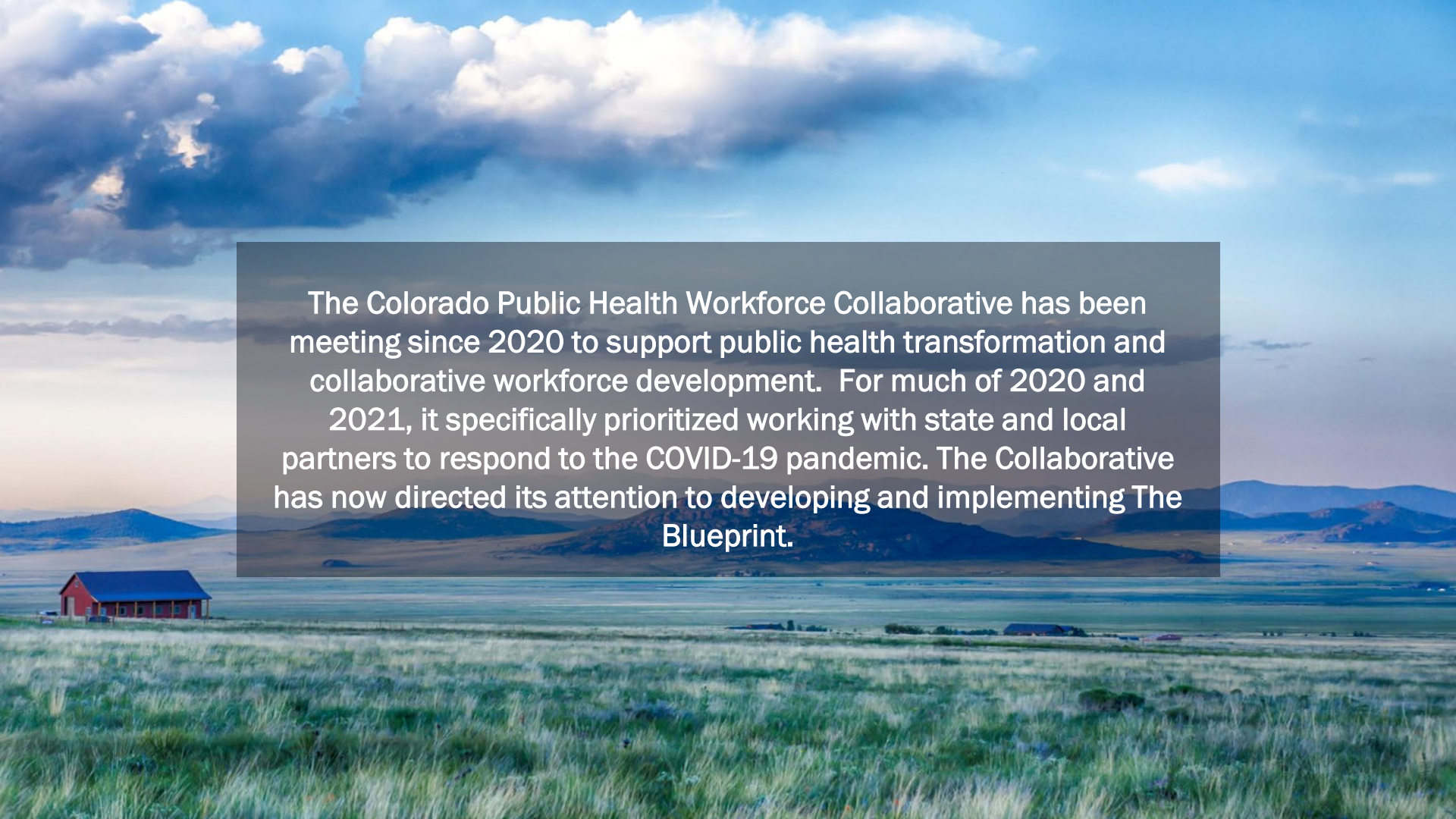


Catalyzing a Public Health Workforce Movement in Colorado: At the Nexus of Strategic Direction and Actionable Data

Sarah Lampe, MPH
Jennifer Edwards, PhD
Trailhead Institute

Workforce development in public health aims to improve health outcomes by enhancing the training, skills, and performance of public health workers.
(PHF,2022)

An intuitive and holistic workforce development framework is key to shifting what, where, and how learning happens...centered on personalized learning, leadership, experiences, and growth...it considers the dynamic nature of evolving jobs and people.
(Deloitte, 2022)



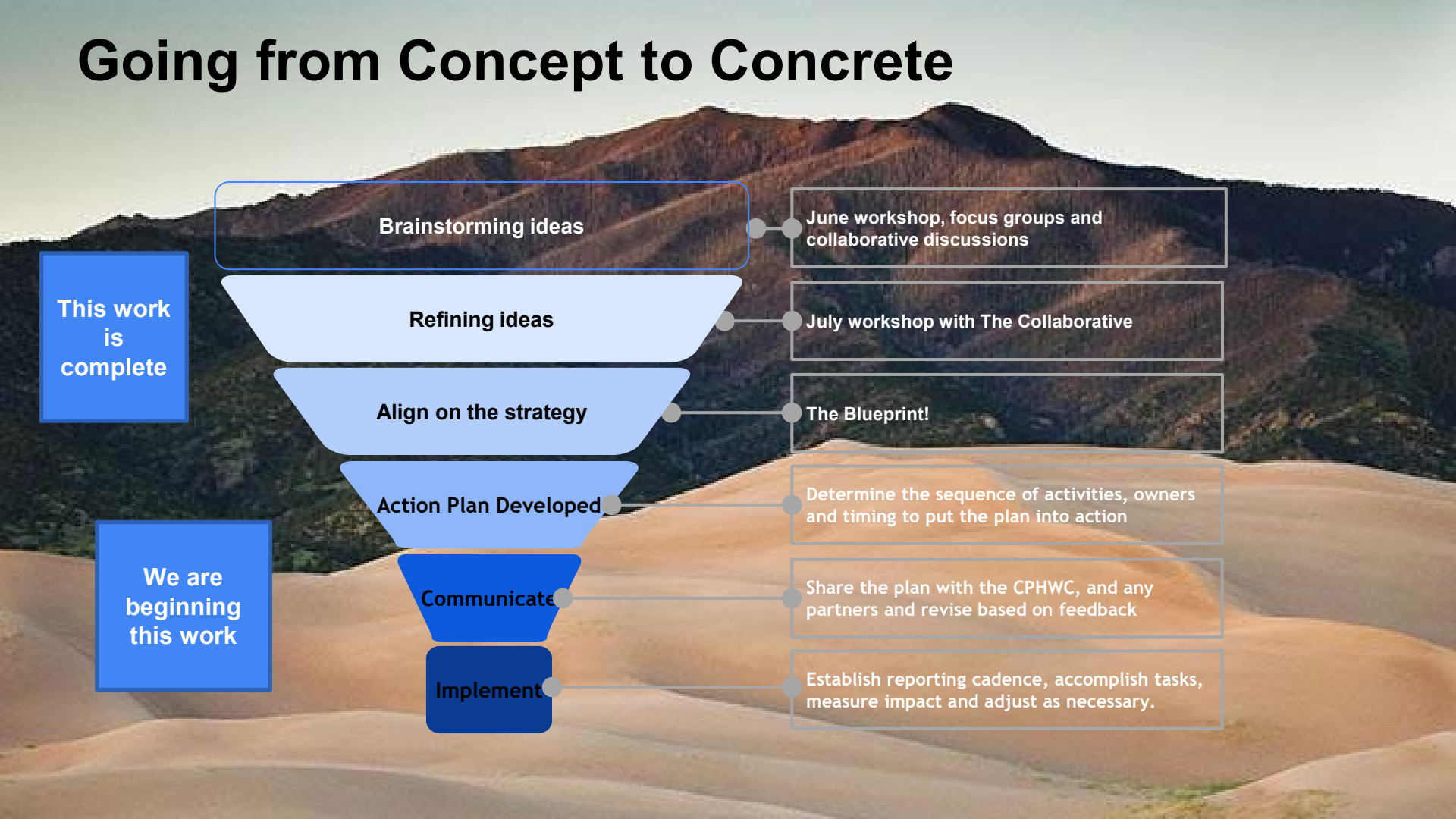
The Colorado Public Health Workforce Collaborative has been meeting since 2020 to support public health transformation and collaborative workforce development. For much of 2020 and 2021, it specifically prioritized working with state and local partners to respond to the COVID-19 pandemic. The Collaborative has now directed its attention to developing and implementing The Blueprint.

The Collaborative

Build and sustain a skilled and diverse public health workforce that reflects the communities they serve and prepares an inclusive public health ecosystem to produce positive and equitable outcomes.


The Colorado Blueprint for Public Health Workforce Development reinforces statewide opportunities to strengthen the delivery of the Colorado Foundational Public Health Services, including environmental health.

Going from Concept to Concrete



Blueprint Focus Area 1: Recruit and attract a diverse workforce into public health

- There is a need to attract new and more diverse talent to the field.
- Get potential workers excited about joining the workforce and recruiting them to start and stay in the field.

Action Plan

- Design a hiring and recruitment visualization toolkit that defines the importance of diversity and need to utilize equitable hiring practices within the public health workforce.
- Create recommendations for recruitment outreach including the identification of candidates within public health and adjacent fields, job description development and job posting strategies.

Action Plan

- Develop inclusive hiring practices that remove implicit bias from application review, interviewing questions, and selection processes.
- Identify and advocate for equitable and competitive offer letters, salaries, and benefit packages.

Action Plan

- Formulate engaging and equitable onboarding practices that support workforce retention and are culturally responsive.
- Develop a campaign to engage high school, undergraduate, community college programs, and workers within adjacent fields to promote awareness for public health career options.

Blueprint Focus Area 2: Develop career and educational pathways including training for those interested in pursuing a career in public health

- Build systems and structures necessary to ensure people not only know about public health as a career option.
- Reinforce purposefully selecting public health as a career path.

Action Plan

Optimize access to Centralized Career Pathway Resource (CCPR) - CCPR is accessible to and inclusive of students, trainees, professionals and employers from all regions and populations of Colorado, with focus on person-centered and identified support these individuals need in their career pathways; and is able to be updated/revised in real time by experts in public health and is accepting and amenable to this input as well as reviewed by experts in public health.

Action Plan

Develop a marketing and communication plan that ensures CCPR is in front of and easily accessible to universities, K-12, community colleges, employers, associations, community-based organizations, workforce centers and other targeted stakeholders utilizing mission-driven and personal terminology/language (student/trainee driven) that is inclusive to diverse populations and resonates with all demographics of student populations.

Action Plan

Inform development of career pathway networks and competencies within education and training institutions and employers to ensure training is aligned with current public health careers and relevant to workforce needs and responsive to the diverse populations and regions of Colorado.

Blueprint Focus Area 3: Retain the public health workforce to keep talented employees, sustain positive outcomes, and foster a positive work atmosphere

- PH WINS states that nearly ⅓ of the current workforce is considering leaving in the next year
- Assure equitable pay, promotion, and development of public health employees.

Action Plan

By June 30, 2024, at least 50% of state and local public health agencies implement an organization-wide employee satisfaction (or “stay”) survey to seek feedback from employees at all staff levels on work culture including flexibility, workload, inclusive practices, and involvement in decision-making.

Action Plan

Develop and disseminate a comprehensive set of resources to professionals who are early in their career and/or from populations underrepresented in public health - and their organizations - to engage in productive, shared decision-making at work.

Blueprint Focus Area 4: Inform public health decisions with workforce data to identify trends, gaps, and develop metrics

- Data are needed to prioritize where resources should be allocated to address the root causes of the workforce issues at hand.
- Data systems in public health are in need of modernization.

Action Plan

- CPHWC members, workgroups, and other PH workforce stakeholders can use effective, data-informed persuasion to secure meaningful investment, expand advocacy partnerships, and drive workforce capacity initiatives at the local level.

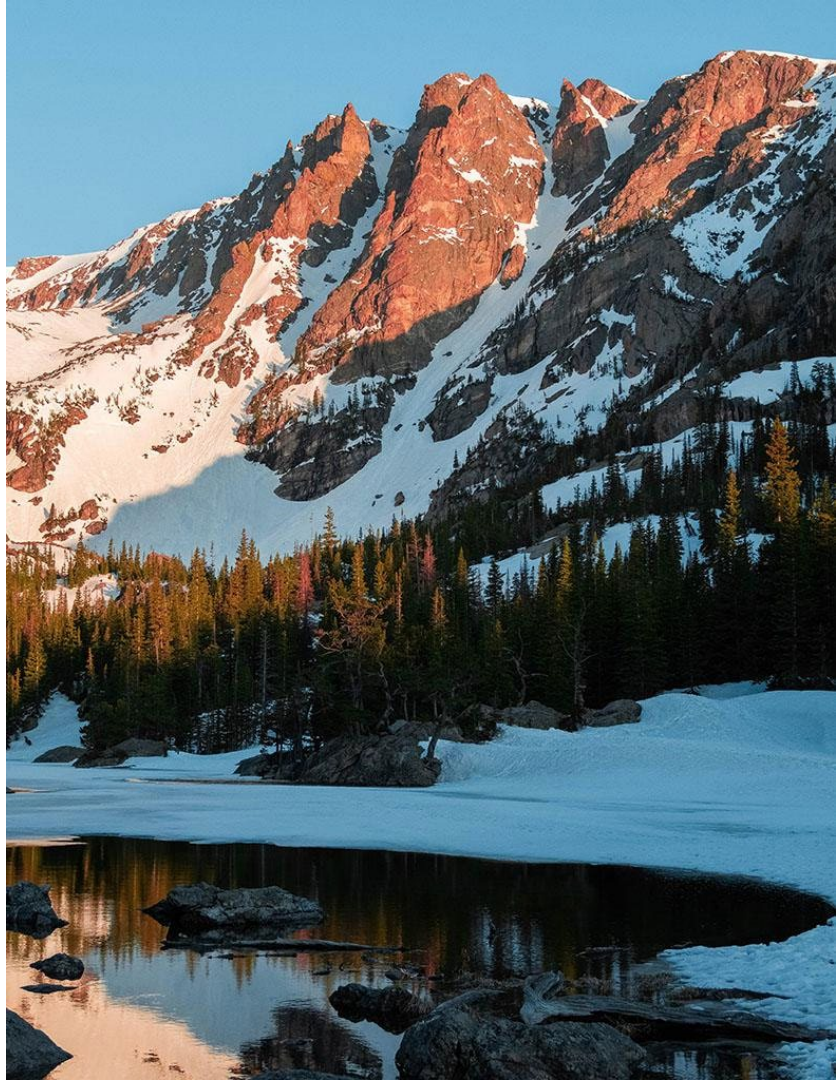
Action Plan

- Maintain in-depth understanding of workforce data sources.
- Provide strategic direction for the analyses, dissemination, and repeated administration of Colorado's primary public health workforce data collection.

Next: Support & Partnerships

1. What **system alignment and coordination** will be needed to implement your organization's action plan?

2. In what ways can **justice, equity, diversity, and inclusion** be infused across implementation efforts?

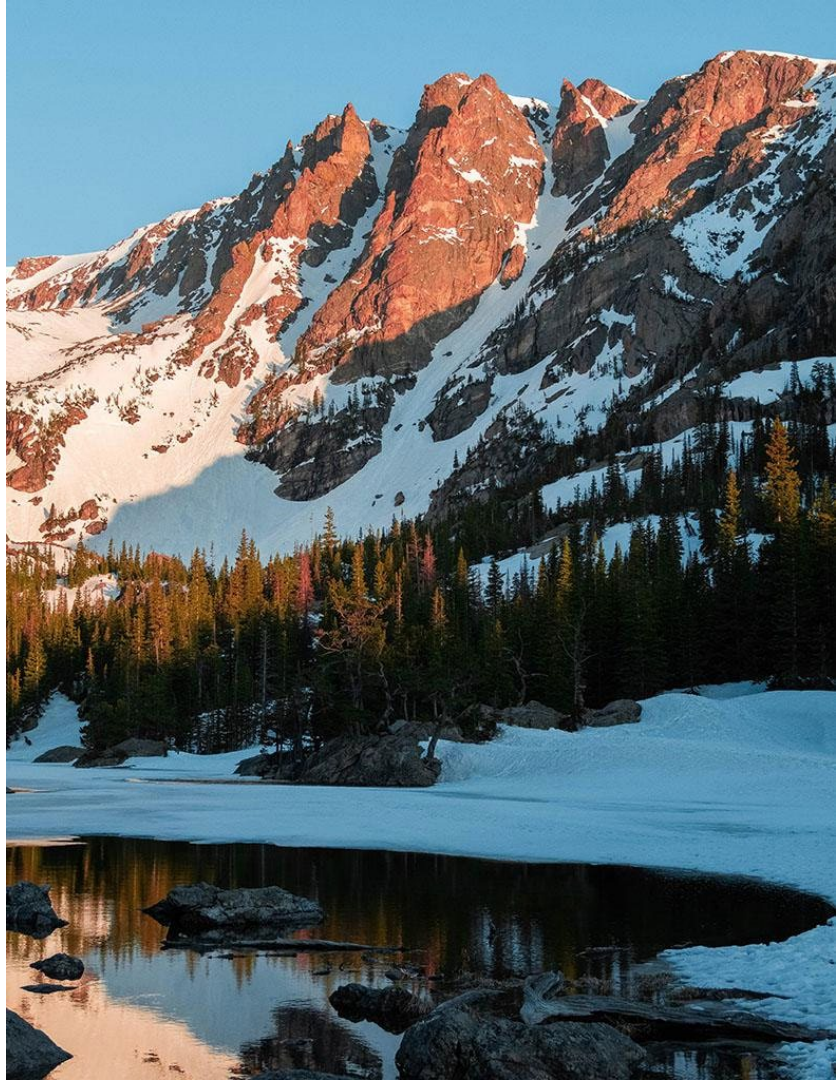


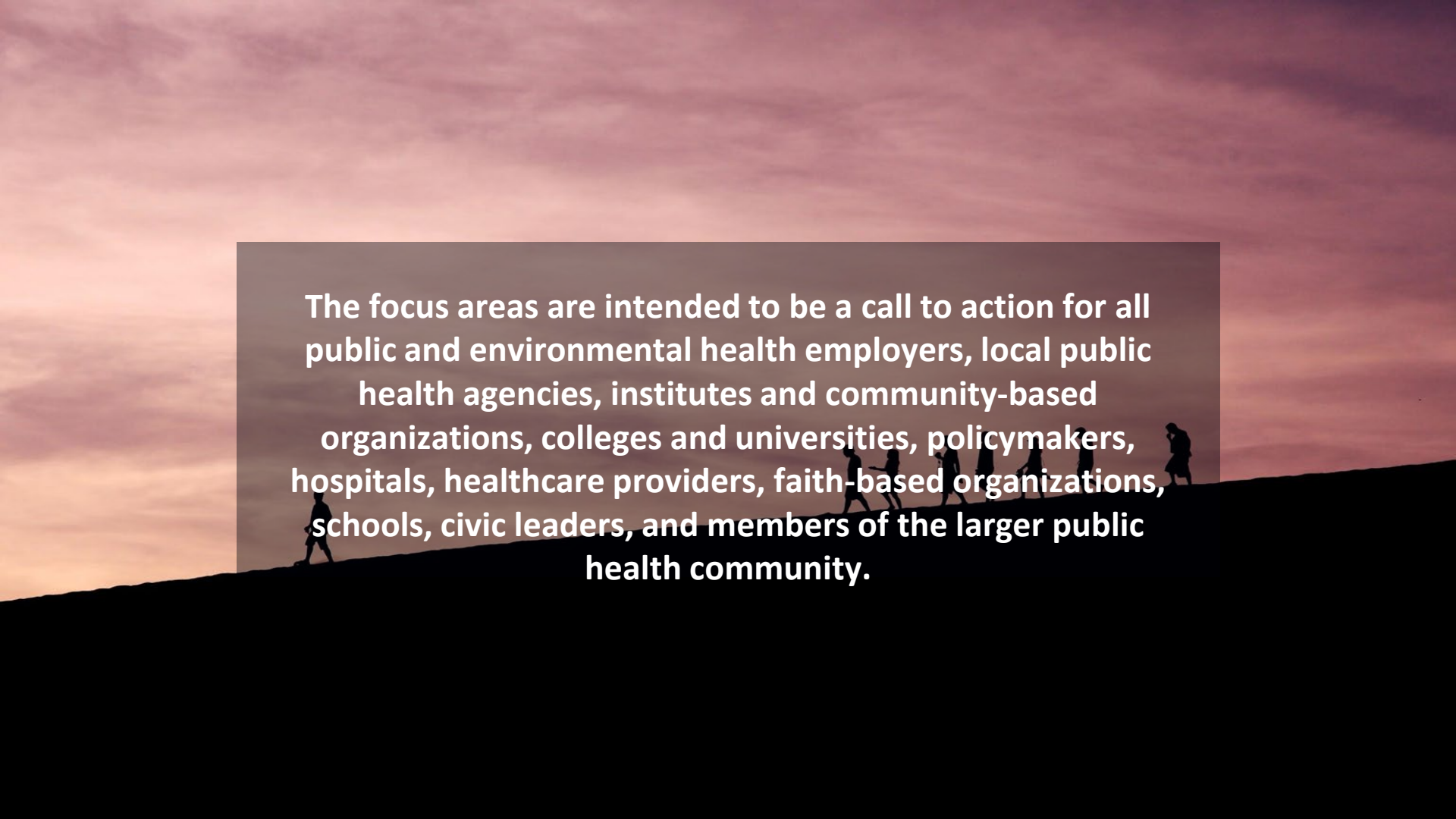
Next: Support & Partnerships

3. Are there opportunities for collaborative discussion around **policy and advocacy** to support implementation of your organization's action plan?

4. How will your organization **fund and sustain** your action plan and support collective sustainability of Blueprint implementation?

5. Are there tools, toolkits, or resources from implementing your activities that can **communicate** the value of the public health workforce and lessons learned in support of workforce development?





The focus areas are intended to be a call to action for all public and environmental health employers, local public health agencies, institutes and community-based organizations, colleges and universities, policymakers, hospitals, healthcare providers, faith-based organizations, schools, civic leaders, and members of the larger public health community.

Activity: Create Your Own Action Plan Part 1

- What focus area is most relevant to your current priorities, needs, and mission?
- Define 1-2 Goals relating to the Blueprint
- Create 1-2 SMART Objectives per goal

Activity: Create Your Own Action Plan Part 2

- Are there any policy related needs to support your plan?
- How is equity integrated into your plan?
- Who are champions that can lead this plan and mobilize a team?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Thank you!
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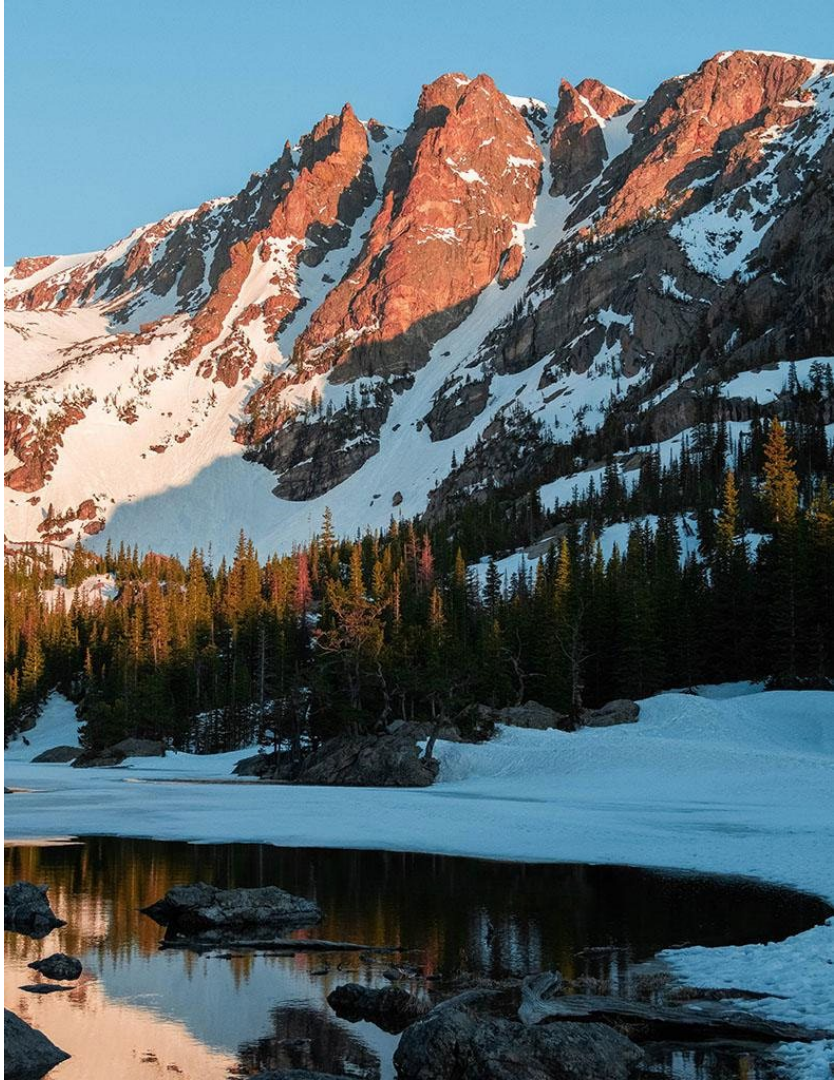
Appendix

Focus Area 1: Recruit and Attract a Diverse Workforce Into Public Health

Toolbox of Possible Strategies to Restore the Workforce Together

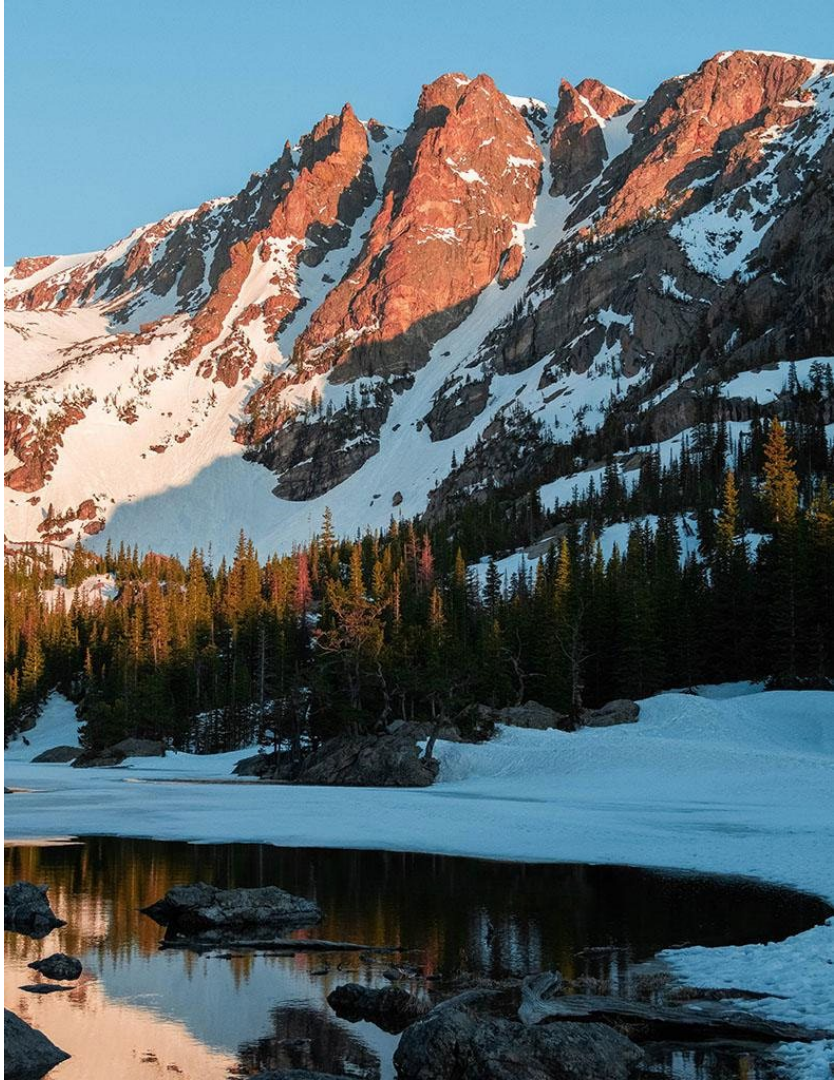
- Assure review and updating of job descriptions to accurately reflect the competencies and skills required for the role, including any needs for certification and the appropriate education level necessary for the role.
- Foster and create safe workplace cultures that are inclusive and diverse.
- Offer access to various employee benefits such as expanded paid time off, wellness support, etc.
- Recruit from other fields/sectors with specific connections and alignment with public health.
- Incentivize going into public health, including in rural and frontier areas, through scholarships, housing stipends, loan repayment programs, etc.
- Improve hiring practices, promotion, and pay to be more equitable and diverse.
- Offer remote working opportunities, as permissible for the job responsibilities, to help increase access to diverse talent and offer increased community access to public health support.
- Increase competitive compensation and benefits.
- Implement recruitment strategies and workforce development partnerships that are relevant to underrepresented groups.
- Consider accessible language as appropriate for hiring and the role.
- Engage the relevant private workforce that may be interested in the benefits of working in public health.
- Engage those from the retired workforce who still may be seeking part-time employment or the benefits of working in public health.
- Build entry-level engagement programs to develop future public health leaders.
- Build new and innovative public health positions and workforces in areas that apply to skills such as technology, climate change, etc.



Focus Area 2: Develop Career and Educational Pathways

Toolbox of Possible Strategies to Develop Career and Educational Pathways

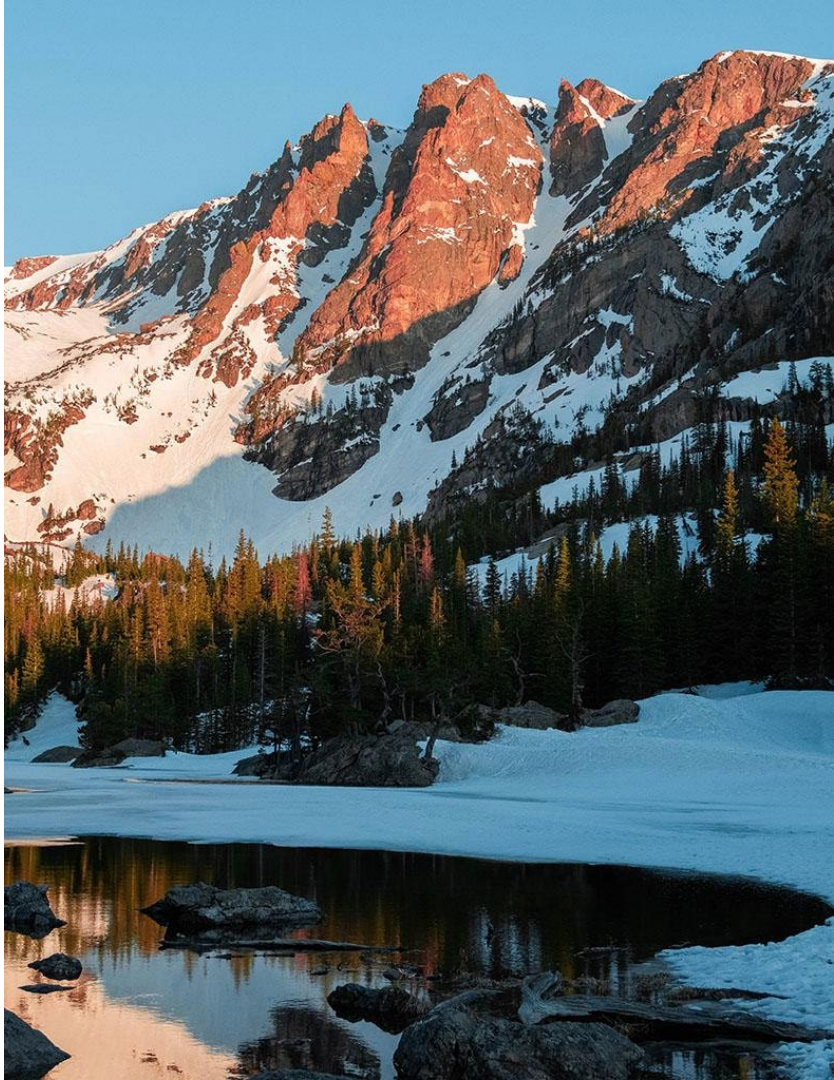
- Continually map public health career pathways that define entry-level careers and advancement opportunities.
- Create learning pathways in partnership with academic, high school, college, and industry partners.
- Standardize training for specific roles and share training resources across organizations across all geographic regions in Colorado.
- Provide cross-training for positions across the field.
- Provide just-in-time training for new and emerging issues across the field.
- Adjust credentialing and training requirements to meet the needs of the field and communities.
- Develop pre-apprenticeship and apprenticeship opportunities to start engagement along the career pathways.
- Work with public health agencies to ensure there is a focus on a skills-based workforce, including strategic skills.
- Establish statewide peer support, coaching, and mentorship programs for diverse leaders and emerging leaders across the field.
- Align with the Quality Jobs Framework to ensure public health uses best practices from the field of workforce development.
- Emphasize and train on communication skills for public health workers to support and advocate for the field.



Focus Area 3: Retain the Public Health Workforce

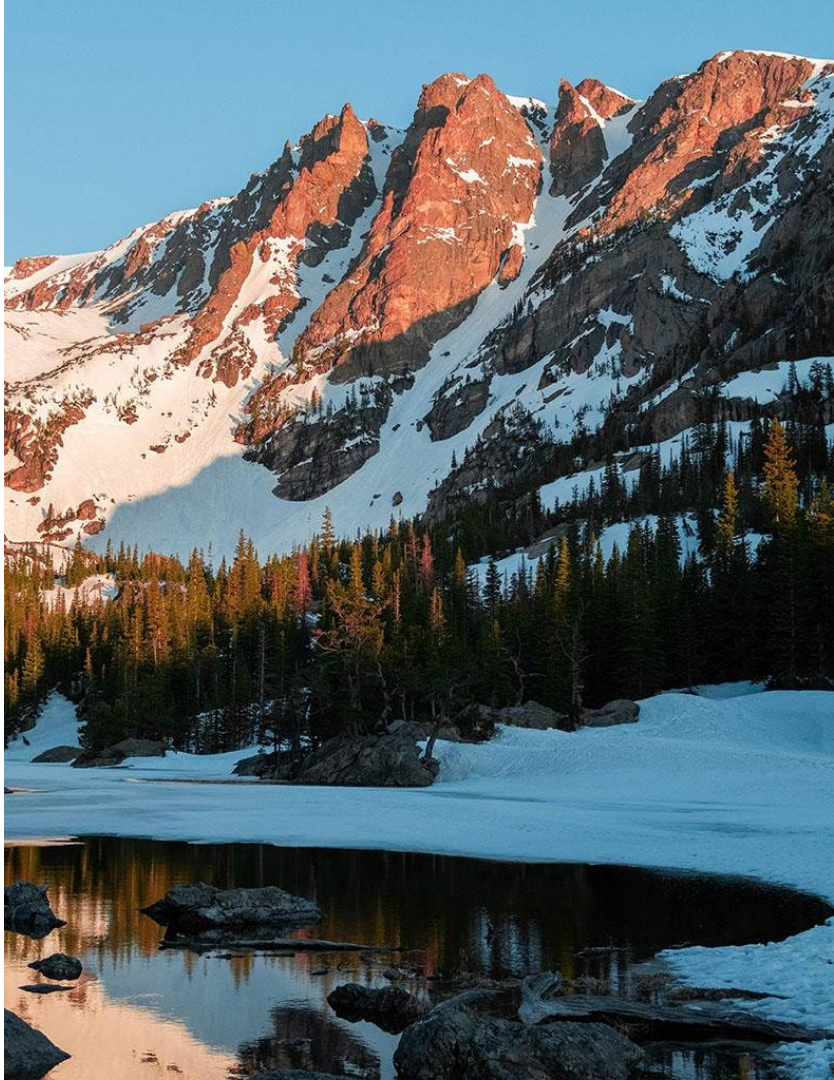
Toolbox of Possible Strategies for Evidence-based Decision making

- Provide resources and incentivize equitable participation for current public health leaders and staff to support resilience and reduce burnout.
- Develop worker orientations and move away from ‘trial by fire’ and into purposeful training and practice within the field.
- Expand and strengthen on-the-job training and education, building on the work-based learning continuum (see below) to learn about work, learn through work, and learn at work.
- Engage early careerists in decision-making, such as defining public health priorities and assessing the alignment of current organizations to address emerging trends and needs.
- Reignite the Public Health Alliance as a way for public health professionals to connect across specific expertise and skills.
- Offer training plans, stipends, and support for those interested in certifications.
- Organize and strengthen public health communities of practice.
- Emphasize the importance of shared decision-making and the value of engaging multiple perspectives and competencies.
- Work with partners across sectors to provide resources for social needs to keep employees in their positions including access to housing, transportation, and childcare.
- Develop programs for emerging leaders across the field to ensure they move up within the pathway and remain in the field.
- Assure equity in the representation of underrepresented groups across all levels of public health organizations, from entry-level to executive.
- Deploy employee satisfaction surveys and “stay interviews” for insights on organizational culture and retention.
- Collect and understand pay dynamics impacting the public health workforce.
- Advocate for adequate funding to support sustainability of the public and environmental health workforce, including considerations for competitive and equitable wages.
- Cover continual cost of living increases relative to urban, rural, and frontier area needs.
- Continue ensuring work-life balance and a supportive working atmosphere that offers flexibility, earned recognition, possible tuition reimbursement, sufficient paid time off, sabbaticals during milestone service years (e.g. after five years, 10 years, etc.), and quality of life benefits.



Focus Area 4: Inform Public Health Decisions With Workforce Data

- ***Toolbox of Possible Strategies for Evidence-based Decision making:***
- Clearly define and understand the statewide public health workforce, including the role of public health adjacent organizations.
- Leverage national, in-state, out-of-state, and local data as available to gain insights on workforce needs and gaps.
- Assure appropriate access to statewide and localized data sources representative of Colorado's range of geographic areas, population groups, and communities.
- Regularly review organization hiring, promotion, and reasons for leaving data for trends and possible inequities.
- Activate storytelling to humanize the data in ways that more holistically represent the public health workforce.
- Develop equity-oriented data systems (National Commission to Transform Public Health Data Systems, 2021), collect core data sets for tracking the public health workforce and support others in creating and fielding data collection strategies.
- Analyze the interplay between governmental public health, nonprofits and institutes, and additional public health-adjacent organizations to inform competencies and ensure surge capacity.
- Streamline systems and identify other technical needs and support for monitoring and measuring the progress of goals outlined in other focus areas.
- Connect data methods with the State of Colorado foundational public health capabilities and public health core services, and overall aims to modernize healthy workplaces and healthy workforces.
- Disseminate and support implementation of best practices to increase each agency's capacity to continually collect and use workforce data for their needs.



Public Health Workforce Data Landscape Scan:

The CPHWC Data Workgroup scanned available sources of workforce data and started to identify gaps

We compiled metadata mainly from these sources:

- NACCHO Profile (**NATIONAL** – **AGENCY LEVEL**):
  - Enumeration (FTE and #)
  - Agency finances
- PH WINS (**NATIONAL** – **STAFF LEVEL**)
  - Multiple variables on satisfaction, burnout, & capacities
- CDPHE's Annual LPHA Survey (**STATE** – **AGENCY LEVEL**)
  - Sporadic data on FTE by Core PH Service
  - Expanded workforce questions (turnover, retention & recruitment challenges, needed skills) starting in 2021
- CO Association of Public Health Administrative Directors (COPHAD) – Salary Survey (**STATE** – **AGENCY LEVEL**)
  - Wages & Salaries for each type of position (not for all positions)

Public Health Workforce Data Landscape Scan:

The CPHWC Data Workgroup scanned available sources of workforce data and started to identify gaps

Other sources considered but deemed to diffuse for our needs:

- Bureau of Labor Statistics
  - Some enumeration data on specific occupations (e.g. epidemiologist) but unable to specify governmental public health
  - Very few specific PH occupations represented

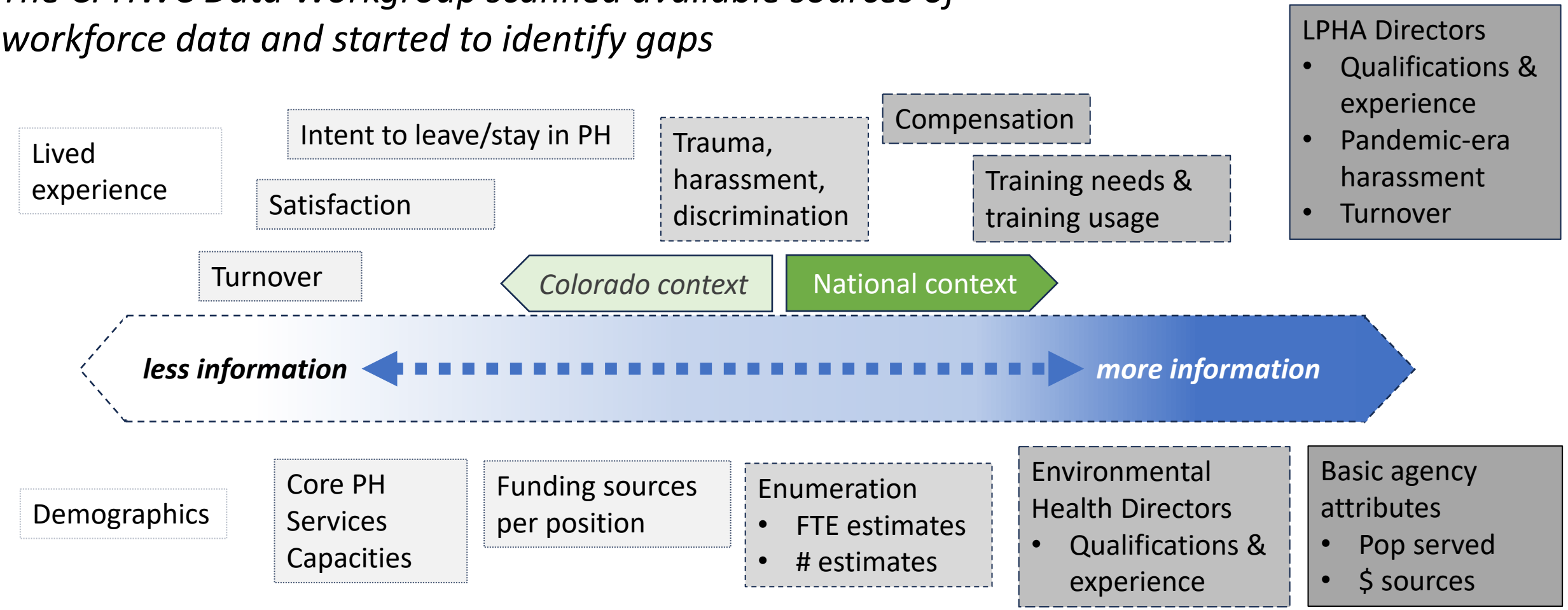
- National PH occupational organizations' regular data collection
  - Specific to each occupation (such as CSTE's Epidemiology Capacity reports)

- American Community Survey
  - Some basic enumeration by county government employment status in health categories (but not validated as public health agencies)

- County Governments' workforce surveys
  - Colorado counties conduct regular surveys on satisfaction, capacities, etc., but often can't be stratified to PH
  - Potential for future exploration, but wide variation in methodologies

Public Health Workforce Data Landscape Scan:

The CPHWC Data Workgroup scanned available sources of workforce data and started to identify gaps



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2023 Colorado Workforce Data

Goals

- Understand the needs of Colorado's public health workforce to inform future public health workforce development initiatives
- Develop and launch a new instrument to obtain missing knowledge deemed most critical for advocacy and planning
- Develop a process to combine existing and new data to outline the current state in Colorado

Methods: LPHA Annual Survey

- LPHA leaders complete a required survey from state health department yearly
- Captures data such as:
  - Number of employees by Core Public Health Foundational Capabilities and role
  - Department revenue and funding sources
  - Number of employees eligible for retirement
  - Core Public Health Foundational Capabilities shared or contracted with others
  - Board of Health make-up

Methods: Colorado Individual-Level Public Health Workforce Survey

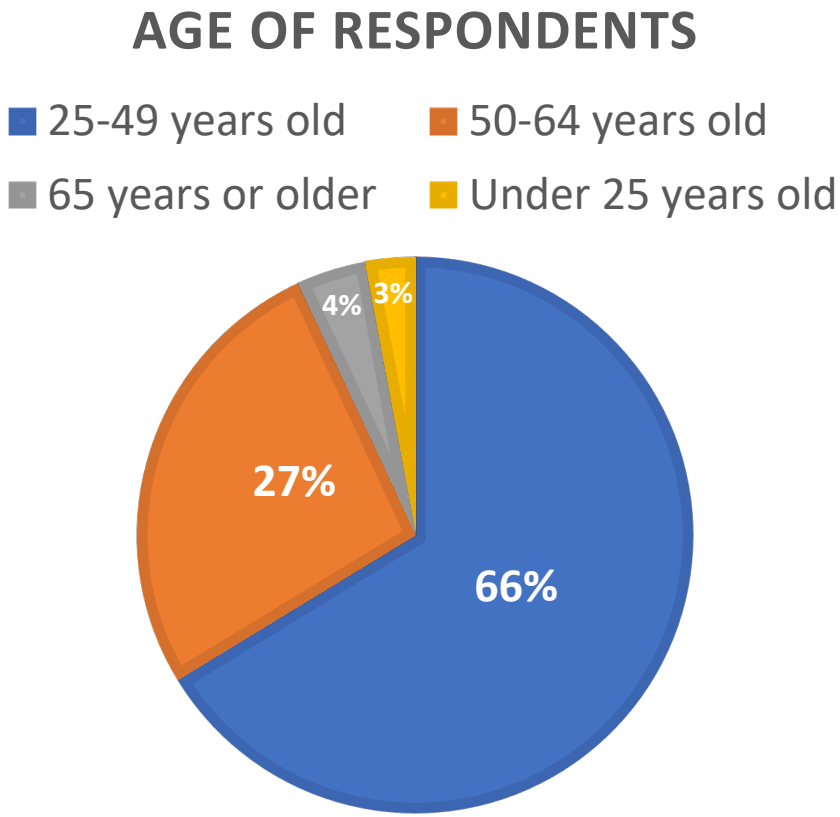
- Colorado Health Institute launched the first state-wide local and state governmental public health staff survey in February 2023
- Mirrored PH WINS and state annual survey questions as best as possible
- Captures data such as:
  - Experience
  - Competencies
  - Satisfaction
  - Demographics

Research Questions

- What are the **demographic** characteristics of the Colorado governmental public health workforce? What is the average **tenure** of the local public health workforce?
- How can we characterize the **qualifications** of the public health workforce?
- Do workforce **competencies** match those needed for Core Public Health Services implementation, community needs, and public health plans?
- Does Colorado have the **education and training programs** needed for a robust public health workforce?
- What types of public health positions are the least and most **satisfied**?

Staff Survey Results: Demographics

- Tenure:
  - Current position: 4.5 years
  - Current agency: 5.5 years
  - Public health practice: 8.9 years
- Gender identity:
  - Female: 81%
  - Male: 17%
  - A non-binary person, including Genderqueer Person, Gender Nonconforming Person, Gender Expansive, Two-Spirit, Neither Woman nor Man: 1%



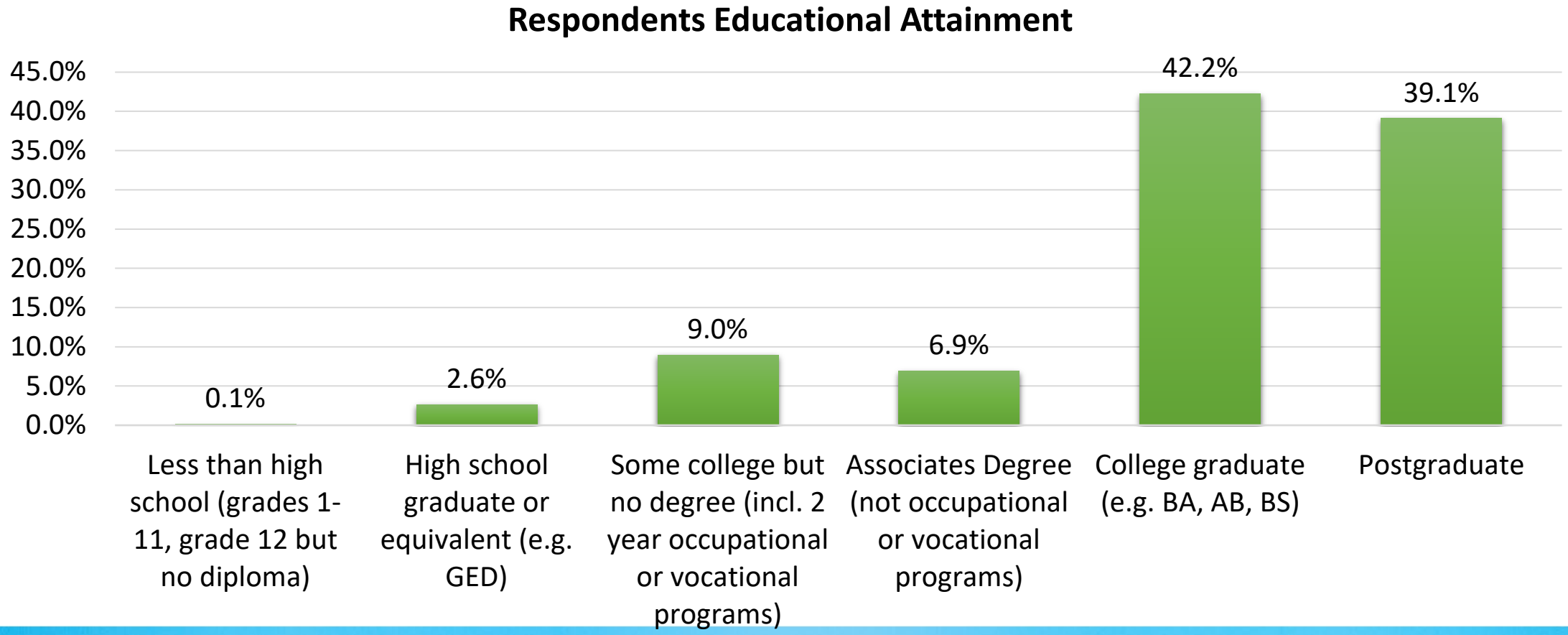
Results: Demographics

Race/Ethnicity	Respondents	Colorado
American Indian/Alaska Native	1.8%	3.6%
Asian	3.3%	4.9%
Black or African American	3.0%	5.5%
Hispanic/Latino/a/x	17.0%	21.9%
Middle Eastern or North African	0.7%	
Native Hawaiian or Pacific Islander	0.6%	0.4%
White	83.1%	70.7%
Other Race/Ethnicity	1.8%	16.2%
Don't Know	0.4%	

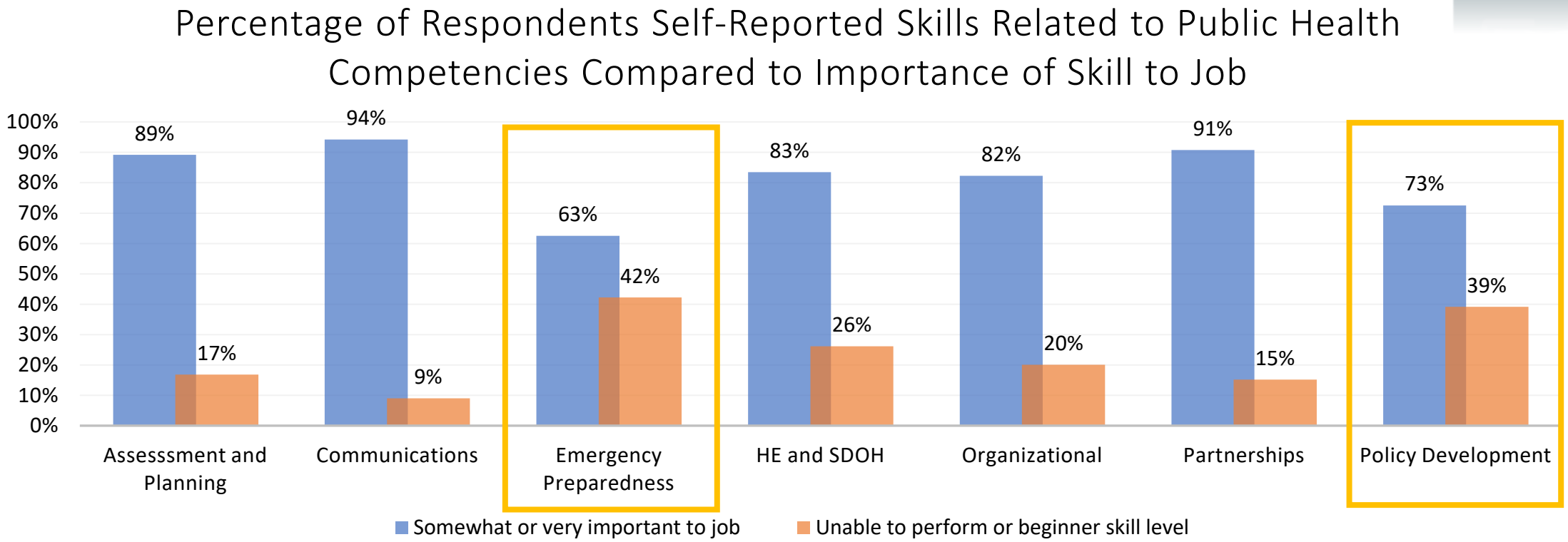
Results: Experience

Lived Experience	% of Respondents
Veteran or active-duty military	4.4%
Member of the LGBTQ+ community	8.9%
Member of a tribal community	0.8%
First-generation immigrant from another country	8.0%
Refugee from another country	0.4%
Migrant family (moving from place-to-place within the U.S.)	1.0%
Living/have lived without stable housing	11.3%
Living/have lived without stable, reliable income	17.4%
Living/have lived without stable access to food	11.8%
Person affected by trauma	33.6%
Grew up or live in the county that work for	27.5%

Results: Experience



Results: Competencies

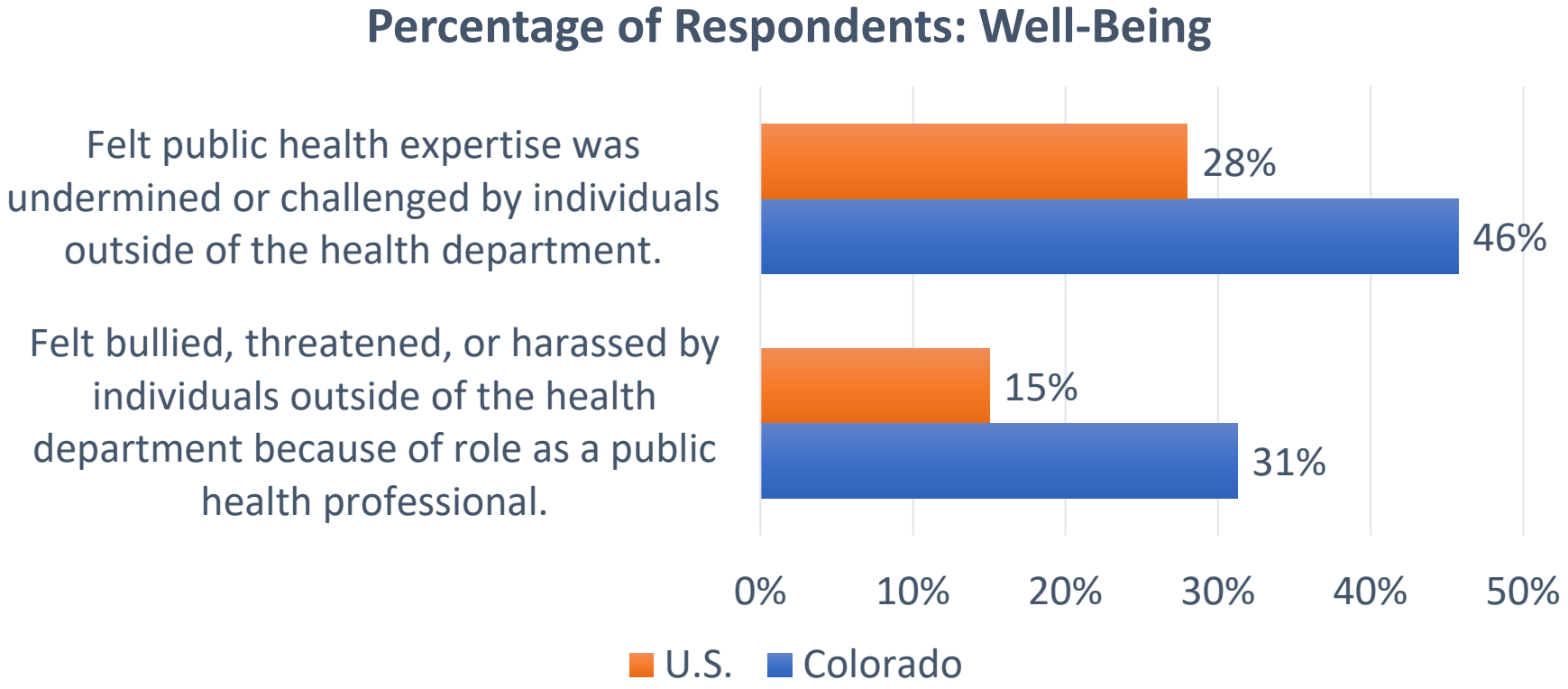


Results: Retention

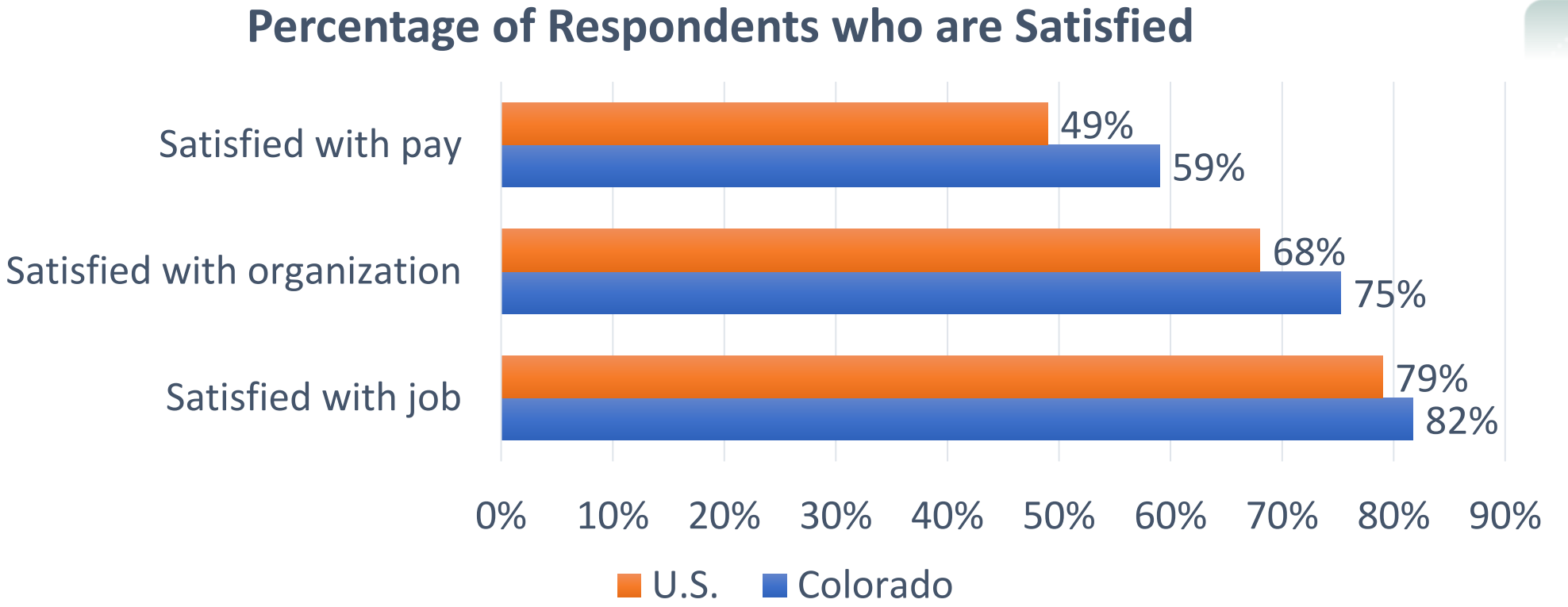
- **13.5%** of respondents noted they intend to leave their position with the health department in the next six months
  - PH WINS national data: **More than a quarter** intend to leave in the next year

- There was no difference in employees' intent to leave based on position type or service area

Results: Well-Being



Results: Satisfaction



Implications

- Colorado has more work to do to ensure we have a public health workforce that looks like communities we serve
- Those working in policy may need additional support and training as they are in a public facing role
- Colorado's decentralized public health system may be affecting employee’s experience with external stakeholders
  - Despite the majority being satisfied, Colorado public health staff members face challenges with harassment and feeling undermined compared to the U.S. as a whole

Next Steps

- Define workforce shortages and develop a shortage implementation model for Colorado

- Complete profiles for each LPHA as well as a final needs assessment report including recommendations for addressing workforce gaps
  - Will assess differences by LPHA region and agency size

Workforce Data Activity

1-2-4-All: Data for Action Planning

1-2-4-All: Data for Action Planning

- What data do you need to implement your draft workforce action plan and to know it was successful?
- What workforce data already exists for your jurisdiction?
- What data is missing and how could you capture them?

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