Washington State Department of HEALTH

One Health Needs Assessment Report

Washington State, 2023

ACKNOWLEDGMENTS

Thank you to everyone who invested their time, interest, and energy to this One Health Needs Assessment process. The process was made better by everyone who was involved.

The One Health Needs Assessment Planning Committee and Primary Authors: Alyssa Aguilar; Hanna Oltean; Beth Lipton (see Appendix A).

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A NOTE FROM THE AUTHORS

Tribal Leadership engagement for this work is occurring through government-to-government procedures initiated by Washington State Department of Health and is not yet reflected in this report.

Washington State Department of HEALTH

One Health Needs Assessment Report

Washington State, 2023

ACRONYMS

CDC – Centers for Disease Control and Prevention
DOH – Washington State Department of Health
FPHS – Foundational Public Health Services
LHJs – Local Health Jurisdictions
PH – Public Health
OH JPA – One Health Joint Plan of Action
OHNA – One Health Needs Assessment
OH-SMART – One Health System Mapping and Analysis Resource Toolkit™
OHZDP – One Health Zoonotic Disease Prioritization
WA – Washington state

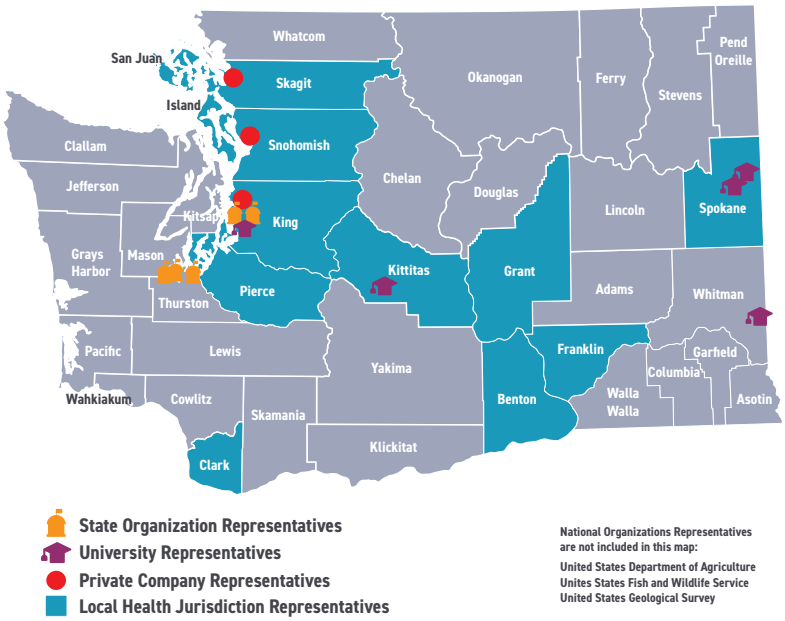
OVERVIEW

One Health is a collaborative effort of multiple disciplines working locally, nationally, and globally to improve the health of our ecosystem, including humans, animals, and our environment. The One Health approach, which has been recognized at international and national levels, promotes multisectoral and cross-disciplinary collaboration to solve health challenges.[1] The most pressing and emerging challenges require using a One Health approach for solutions, as human, animal, and environmental health are inextricably linked and interconnected.

Global and One Health is one of five priorities in the Washington State Department of Health (DOH) Transformational Plan.[2] The Transformational Plan outlines commitment to leading the development and implementation of One Health solutions. Although DOH has historically both led and participated in One Health work, resources had not previously been available to identify One Health priorities in the state. In 2022, DOH received Foundational Public Health Services (FPHS) funding to engage cross-sectoral partners and perform a needs assessment across One Health topics for our state.

The One Health Needs Assessment Report is the result of this effort. The objective of this undertaking was to evaluate and prioritize current and desired One Health efforts in Washington state (WA) to guide funding, program activities, and policy decisions. The needs assessment included a two-day workshop that was designed to promote One Health understanding; foster collaborations and partnerships; facilitate One Health conversations around pre-identified One Health topics; and prioritize One Health actions by assessing readiness and impact. With input from the Advisory

Represented Location of Participants



Committee, a group of 17 individuals representing leadership and subject matter expertise from state organizations, state academic institutions, and tribal health organizations, the workshop framework incorporated aspects of three well-recognized One Health frameworks: One Health Zoonotic Disease Prioritization[3], One Health Systems Mapping and Analysis Resource Toolkit™[4], and One Health Joint Plan of Action.[5]

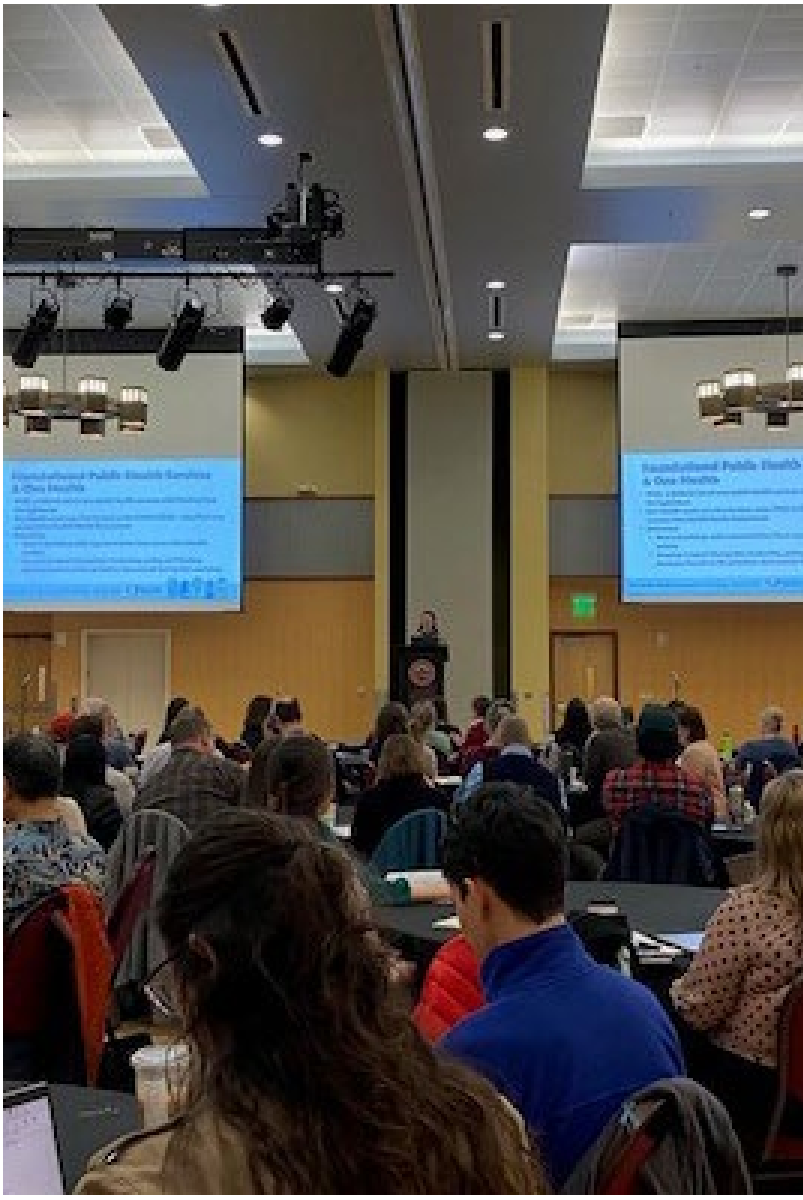
During the workshop, participants self-selected into workgroups to discuss 20 One Health topics that had been pre-identified by the Advisory Committee. The workgroups discussed strengths, barriers, and gaps to define a One Health action. Workgroups then outlined approaches for the One Health actions considering feasibility over the next five years. Five One Health actions were identified as highest priority by a ranking exercise using readiness – evaluating existing polices, regulations, capacity, multisector collaboration, and available data- and impact – evaluating improved data, systems or programs to improve health, equitable access to water or nutrients, impact on multiple priorities, and return on investment.

Highest priority One Health actions identified by the One Health workshop:

- Addressing antimicrobial resistance in Washington through collaborative efforts, joint advocacy, training, and data sharing for improved antimicrobial stewardship and monitoring of antimicrobial resistance in humans, animals, and the environment.
- Optimizing cross-sectoral data interoperability through standardization and improved data sharing processes, ultimately developing a cross-cutting One Health data system for human, animal, and environmental health and inclusive of data from state, local, private, institutional, and tribal sectors to enable joint visualization and analysis.
- Moving preventive work upstream using a One Health lens to promote health equity through cross-sectoral relationship building, collaboration, and advocacy.
- Improving outbreak/pandemic preparedness and response through joint advocacy, public engagement, data sharing, and strengthened cross-sectoral collaboration, especially for zoonotic and vector-borne diseases.
- Conducting agency-level data and surveillance needs assessments and advocating for optimal data and surveillance for tracking and reporting.

In addition, one action was ranked in the top five impact scores but had a low readiness score: Implementing a One Health approach for addressing climate impacts on health, with a focus on health equity, environmental justice, surveillance capacity, professional and public engagement, and advocacy. The high impact but low readiness score indicates additional readiness work is required on this topic.

This report describes the methods used to plan and conduct the workshop and summarizes the cross-cutting strengths, barriers, and potential approaches to addressing the discussed One Health topics. Using the results from this needs assessment, we intend to guide future funding, program activities, and policy decisions. Ongoing work includes continuing discussions around specific One Health issues, collaborating to define measurable goals for future work, and seeking funding opportunities.



INTRODUCTION

One Health in Washington State

One Health is the concept that the health of people, animals, and our shared environments are connected. One Health is also an approach to designing and implementing programs, policies, and research through consideration of multisectoral viewpoints with a goal to achieve optimal and balanced human, animal, and environmental health outcomes. The concept driving the One Health approach has reemerged in history numerous times and is represented in many ancient and modern cultures and religions.[1] Additionally, while the concept was first mentioned as "One Health" in 2004 in Western society, Indigenous knowledge has long recognized this interdependence among the health and well-being of humans, animals, and the environment.[6,7]

In Fall 2022, the One Health High-Level Expert Panel, an advisory group to four international organizations – the Food and Agriculture Organization, United Nations Environment Programme, World Health Organization, and World Organization for Animal Health – defined One Health as:

> **...an integrated, unifying approach that aims to sustainably balance and optimize the health of people, animals, and ecosystems. The approach mobilizes multiple sectors, disciplines, and communities at varying levels of society to work together to foster well-being and tackle threats to health and ecosystems, while addressing the collective need for clean water, energy and air, safe and nutritious food, taking action on climate change, and contributing to sustainable development. As a concept, it recognizes the health of humans, domestic and wild animals, plants, and the wider environment (including ecosystems) are closely linked and inter-dependent.[5]**

Several WA agencies, organizations, and institutions have championed the One Health approach over the past decade, acknowledging the connections between animals, humans, and the environment, and seeking to solve complex health problems using this approach.

Currently, the WA One Health Collaborative is the primary coordinated platform for government agencies to connect and collaborate with each other and with other partner institutions and organizations working across One Health

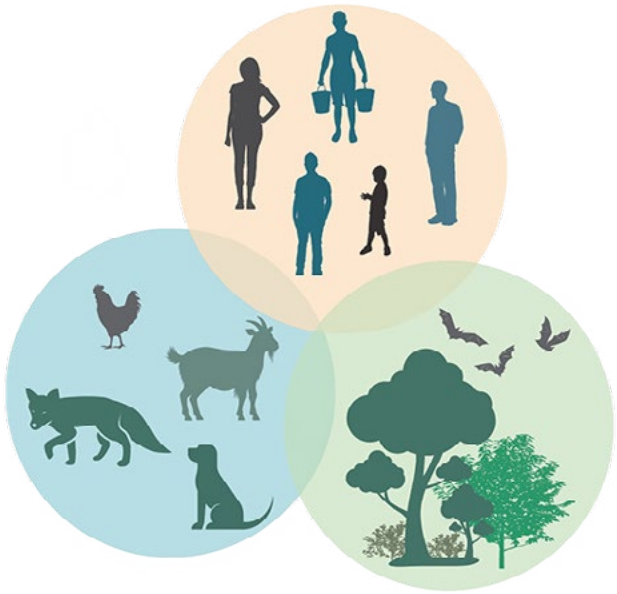


Image sourced from Centers for Disease Control and Prevention: www.cdc.gov/onehealth/resource-library/one-health-graphics.html

efforts. This Collaborative meets quarterly to facilitate relationship-building, cross-agency collaboration, and information sharing. Participating state agencies include DOH, Washington State Department of Agriculture, and Washington State Department of Fish and Wildlife; a full list of agencies, institutions, and organizations participating in the Collaborative is available here: https://doh.wa.gov/community-and-environment/one-health. Two One Health working groups have developed from the Collaborative: the One Health Combating Antimicrobial Resistance Workgroup and the One Health Surveillance and Data Systems Workgroup. These workgroups have established goals and executed deliverables while focusing on cross-sector information sharing.[8]

The state of WA is composed of 39 counties, with a wide diversity of urban, suburban, and rural communities and varied ecological zones ranging from high desert to rainforests. WA's Public Health system is decentralized and includes DOH, WA State Board of Health, Tribal Health Organizations, and local health jurisdictions (LHJs).[9] Thirty-five LHJs cover the 39 counties. In 2023, a One Health Community of Practice was initiated by and among LHJs to increase coordination in incorporating One Health approaches into local public health work.

Historically, there have not been resources to support a concerted effort involving partners across WA to identify and prioritize areas of One Health for improvement and development. In 2022, DOH established a new vision for improving health for all in the Transformational Plan, which includes Global and One Health as one of its five priorities.[2] Concurrently, DOH's Zoonotic and Vector-borne Disease Program was awarded funding from FPHS to conduct a One Health Needs Assessment (OHNA) in WA.[10]

The One Health Needs Assessment

A needs assessment allows for the collection of information that informs a population's needs and existing resources. It reveals and prioritizes the population's areas of need, and typically includes identification of stakeholders, determination of barriers and gaps in a system or organization, collection of qualitative and quantitative data to describe the current state of a system or organization, and collaboration on defined goals and objectives for the future.[11,12] Overall, it can be used for planning and resource allocation and can take different forms depending on the context and purpose of the assessment.

In various levels of implementation worldwide, One Health practices have faced barriers in legal support, the inclusion of the environmental sectors, and silos in data sharing, budgets, and professional sectors.[5] The objective of this undertaking was to evaluate current and desired One Health implementation efforts in WA to guide funding, program activities, and policy decisions.

The main component of the OHNA was a two-day workshop. This workshop included a facilitated process for representatives with diverse knowledge and experiences to discuss One Health topics they would not otherwise have had the opportunity to explore together.

The One Health Needs Assessment Workshop

There are a variety of One Health frameworks designed to improve collaboration, communication, coordination, and capacity-building around One Health issues. Many jurisdictions have implemented One Health frameworks to address health issues from multiple perspectives and improve health holistically.[13]

DOH worked within funding resources provided by FPHS to construct and implement the OHNA. We collaborated with cross-sectoral health experts in the state and integrated three One Health frameworks into the design of the OHNA workshop: One Health Zoonotic Disease Prioritization (OHZDP), One Health Systems Mapping and Analysis Resource Toolkit™ (OH-SMART™), and One Health Joint Plan of Action (OH JPA).[3,4,5] These frameworks are generally modelled toward prioritizing zoonotic diseases; however, the OHNA considered broad and inclusive One Health topics.

The in-person, two-day OHNA workshop had four objectives:
1) Foster new collaborations and partnerships;
2) Understand areas that benefit from One Health collaboration and facilitate One Health conversations;
3) Prioritize the One Health actions agreed on by multisectoral, One Health partners; and,
4) Develop a report of the assessment to guide funding, program activities, and policy decisions.

This report describes the methods and shares the results of the OHNA.

Case Study 1

Sharing Data for Animal and Human Disease Prevention

Sharing data and information in real-time improves prevention and response activities for all agencies involved. Sharing of data such as animal illnesses or die-offs, human illnesses, laboratory findings, and environmental conditions allows for partners to conduct targeted outreach and have a more comprehensive picture of a situation. In 2018, the Washington Department of Agriculture (WSDA) implemented automated data sharing of animal health data for zoonotic and vector borne diseases to Washington Department of Health (DOH), allowing public health to follow-up with veterinarians and animal owners for exposure risk assessment, education, and prevention. More recently, highly pathogenic avian influenza H5N1 resulted in data and information sharing among Washington Animal Diagnostic Disease Laboratory, Washington Department of Fish & Wildlife, WSDA, and DOH, as this virus affects wild birds, domestic poultry and mammalian wildlife, and presents a risk of changing to become more infective to people. Currently, a workgroup of government agency and academic partners are discussing additional data sharing opportunities and creation of a One Health data storage system where animal, human and environmental health data would be interoperable, synthesized and accessible for all partners.

WHAT WE DID

BEFORE THE WORKSHOP

Advisory Committee

The Planning Committee (Appendix A) formed a cross-sectoral Advisory Committee to co-design a successful approach for the needs assessment. This committee was established in October 2022, with 17 experts from diverse domains including animal health, environmental health, and human health, including public health (Appendix B). This committee collaborated on the scope and strategy of the needs assessment and helped to ensure robust partner engagement. To scope the needs assessment, the committee established 20 One Health topics to discuss during the workshop that took place in March 2023. A list of these 20 topics can be found in Appendix C.

Workshop planning was iterative, including review of new and relevant materials and monthly Advisory Committee meetings.

Contributing One Health Frameworks, Facilitation Guide, and Prioritization Tool Development

A literature review of existing One Health frameworks was conducted to inform the needs assessment methods. Contributing frameworks were chosen due to implementation of similar objectives, such as addressing One Health threats or applying the One Health approach. While no frameworks detailed a process to perform a

Case Study 2

Improving Veterinary Knowledge of Judicious Antibiotic Use

A collaborative project between Washington Department of Health, Washington Animal Diagnostic Disease Laboratory, Washington State Veterinary Medical Association (WSVMA), and University of Washington Center for One Health Research was aimed at developing quick resource educational materials for judicious antimicrobial use in companion animals. Antibiotics are used routinely to prevent and treat bacterial disease in veterinary and human medical care. However, antibiotic effectiveness is declining as bacteria develop resistance, and antibiotic resistance is considered one of our most serious public health threats. In a 2015 WA survey, 91% of veterinary prescribers agreed that antibiotic resistance is an important public health issue in veterinary medicine.[1] The major driver of antibiotic resistance is widespread antibiotic use, including appropriate and inappropriate use. A recent study in WA used scenario-based questions to assess correctness of antibiotic usage: less than two-thirds (62%) of small animal veterinarians correctly responded to the scenarios.[2] The developed, quick resource materials—a poster and a pocket guide—will be shared with Washington State University veterinary students, posted on agency websites, and shared at the 2023 WSVMA Annual Conference in September. A follow up survey of veterinary students who received the guidance will assess usefulness of the resources and guide additional efforts to support antimicrobial stewardship.

1 Fowler et al. A survey of veterinary antimicrobial prescribing practices, Washington State 2015. Vet Rec. 2016 Dec 24;179(25):651.

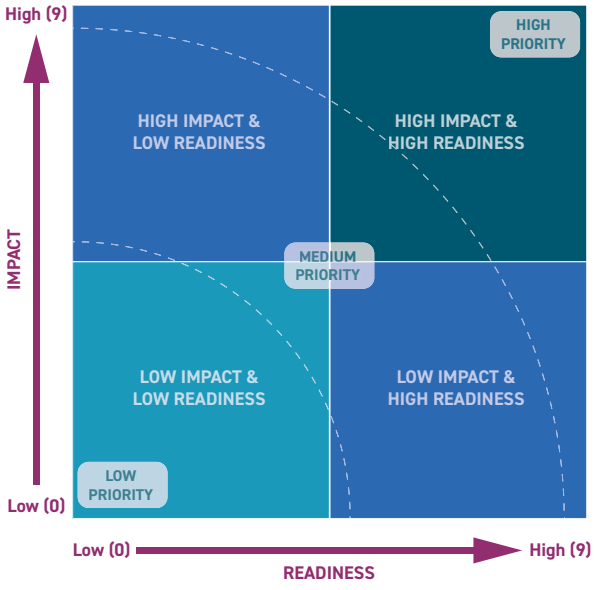
2 Unpublished data from a collaborative project between DOH, Washington Animal Diagnostic Disease Laboratory, Washington State Veterinary Medical Association, and University of Washington Center for One Health, and funded through the Washington Integrated Food Safety Center of Excellence.

statewide One Health Needs Assessment, they did inform our integrated approach. Appendix D illustrates how the OHNA merged aspects of the OHZDP, OH-SMART™, and OH JPA into the implementation of the workshop.

A facilitation guide was created to provide a systematic way to discuss topics and collect participant input. This guide directed semi-structured working group discussions of barriers, gaps, strengths, needed actions, and potential approaches related to the 20 pre-defined topics. The full facilitation guide used in the workshop can be accessed in Appendix E and is available at this link: https://doh.wa.gov/sites/default/files/2023-06/0HNA2023FacilitationGuide.pdf.

The prioritization tool was developed as a matrix, evaluating impact and readiness for each topic. A worksheet aided evaluation of impact and readiness by featuring five criteria questions for each, which were largely based on the OH JPA Pathways of Change. The full ranking worksheet can be accessed in Appendix F and is available at this link: https://doh.wa.gov/sites/default/files/2023-06/0HNA2023RankingWorksheet.pdf.

Prioritization Matrix



Participant Selection

The Advisory Committee drafted a list of relevant partners for invitation to the OHNA Workshop, and a snowball approach was employed, with invited participants allowed to forward the invitation to colleagues. The table in Appendix G provides a list of all participants' sectors and organizations.

East Selah families still frustrated by unusable water, asked for input on state PFAS efforts

Case Study 3

Addressing the Public Health Threat of Per–and Polyfluoroalkyl Substances (PFAS)

Per- and polyfluoroalkyl substances (PFAS), or "forever chemicals," are a large family of human-made chemicals. Some PFAS could harm human or animal health when they build up to high enough levels. Washington Department of Ecology (ECY) and DOH developed a statewide PFAS Chemical Action Plan (CAP) to address human exposure and environmental contamination. PFAS have been used in a range of stain-resistant, water-resistant, and grease-resistant consumer products since the 1950s, like stainproof carpets and furniture, some outdoor clothing and some non-stick pans. PFAS are also used industrially, including in some firefighting foams. PFAS are a One Health concern because:

- Some are toxic.
- They can escape from products and get into the surrounding environment.
- They don't break down easily.
- They spread easily in the environment.
- Some can build up in our bodies, plants, and animals.

PFAS are banned from firefighting foam, aftermarket furniture sprays, and some food contact papers in Washington. The State Board of Health adopted PFAS standards for Group A public drinking water systems in 2021, and PFAS have been discovered above state safety standards in some drinking water supplies. DOH and ECY have done extensive outreach and education with impacted communities. More needs to be learned about the impacts of PFAS on livestock, pets, and gardens, including how people may be exposed from food source. A One Health approach to mitigating PFAS in products and the environment, and to preventing animal and human exposure, is needed to address this public health threat.

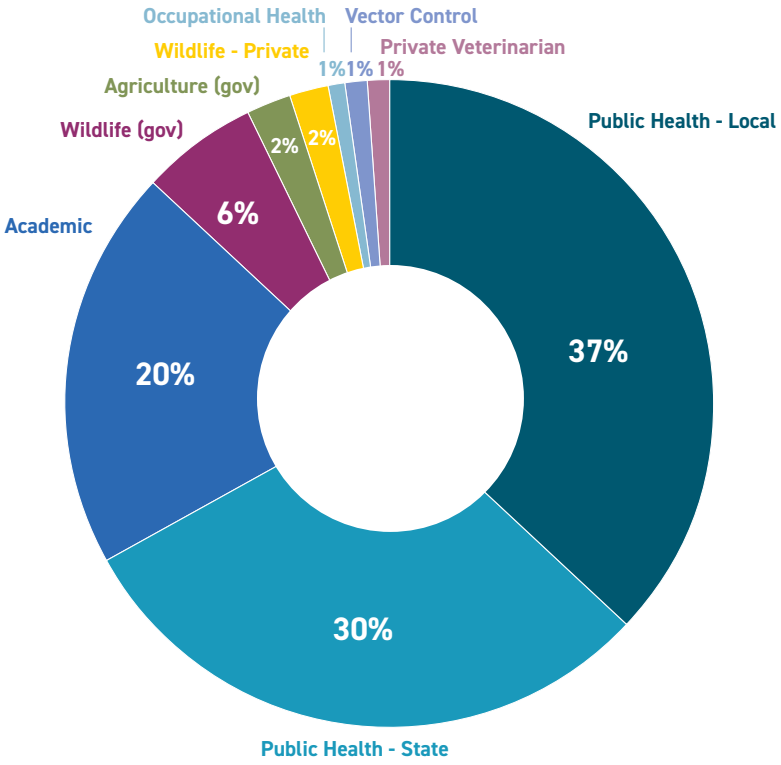
DURING THE WORKSHOP

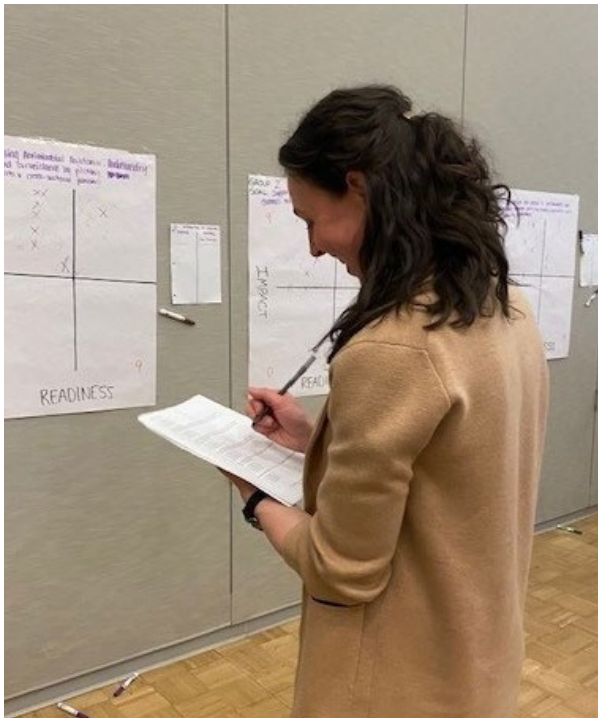
The Working Groups

At the two-day OHNA workshop, participants were introduced to the 20 One Health topics, the facilitation guide, and the prioritization system. Participants discussed the One Health topics in separate workgroups, and then all participants were invited to prioritize the identified One Health actions.

Ten working groups met simultaneously on each day, allowing for participants to choose two of the 20 pre-defined topics over the two days. Participants self-selected into these groups, though organizations with multiple representatives were encouraged to attend different working group sessions to increase diverse representation. Each group had at least two volunteers—one facilitator and one notetaker—leading the semi-structured discussions using a facilitation guide. Through facilitating multisectoral collaboration and discussion, the desired outcome of these groups was to evaluate the specific One Health topic to record strengths, barriers, and gaps to better define a One Health action. Working groups then outlined approaches for each One Health action considering feasibility over the next five years.

Professional Sectors of Workshop Participants





At the conclusion of the working group discussions, the group facilitators presented a report out of the discussions to the full audience of attendees. The facilitators encouraged all attendees, both their working group participants and others, to ask questions and share feedback. A volunteer was assigned to take notes during the report out discussions.

Prioritizing One Health Actions

Participants reflected on the 20 described One Health actions after working group and report out discussions, and using the ranking worksheet as an aid, placed a point on posters with impact and readiness matrices. Participants were able to prioritize some or all of the One Heath actions depending on self-assessed level of familiarity with the topic.

One Health Big Picture Discussion

The final discussion on the second day of the workshop created space for reflections on the outcome of the workshop. Specifically, it was a discussion about how to move One Health work forward from the workshop and any overarching ideas to make progress on One Health issues in WA.

AFTER THE WORKSHOP

Analyzing the Results

Qualitative data were standardized and summarized using NVivo qualitative analysis software (NVivo®, Lumivero. (2023)). Prioritization scores for impact and readiness of the described One Health actions were averaged to a single point on the 20 matrix tables. This point revealed a single score for the readiness and impact of each One Health action. These scores were added together to sum the overall score, and actions were ranked highest value to lowest value.

Case Study 4

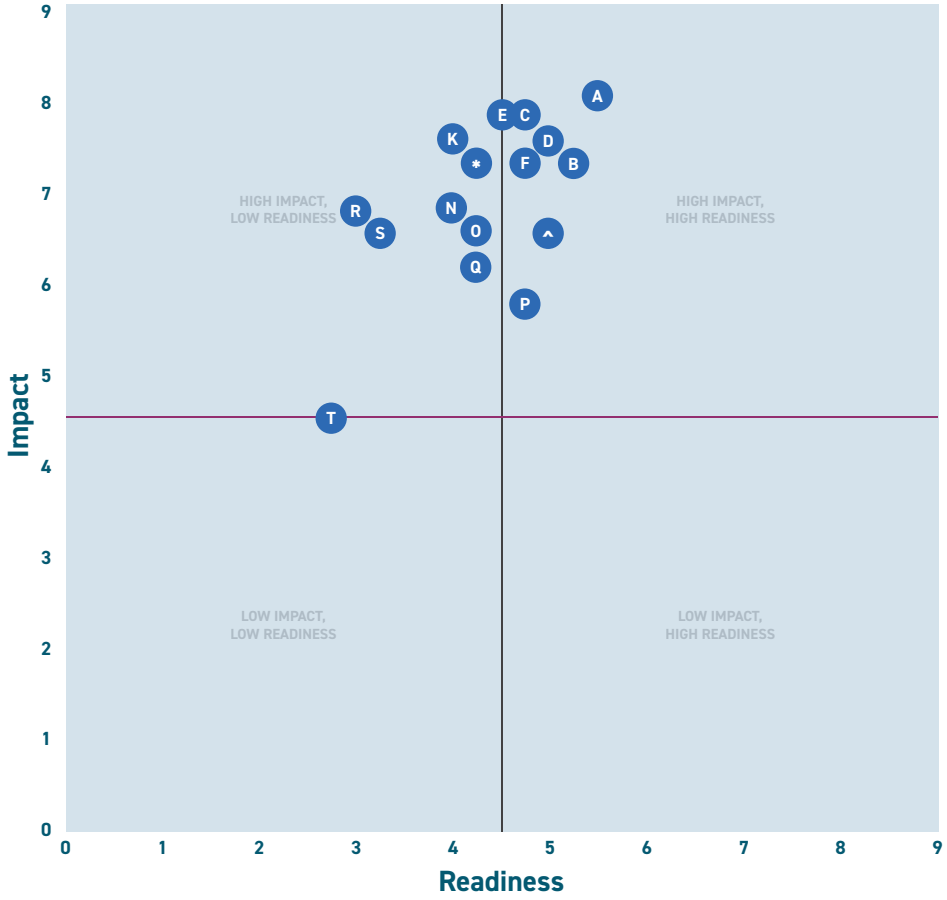
Wildfire Smoke Impact on Animals and People

The Washington State Department of Health's Climate and Health team and Air Quality unit work to provide Washingtonians with information on how to best protect their health during wildfire smoke events and offer guidance to entities making public health decisions, like cancelling outdoor event and activities. Wildfire smoke contains microscopic particles that can penetrate deep into the lungs and inhaling wildfire smoke is not healthy for anyone, including animals. Most people have minor effects from wildfire smoke exposure, such as eye, nose, and throat irritation. Others have more serious effects such as shortness of breath, wheezing, chest pain, or irregular heartbeat. Certain people are more at risk for having serious complications, including children; people with asthma or other lung disease, respiratory infections, or heart problems; people who have previously had a heart attack or stroke; older adults; smokers; diabetics; and pregnant people. Smoke can affect animal health just as it does for people. Animals with cardiovascular or respiratory disease are at increased risk from smoke and should be watched during periods of poor air quality. There are recommendations for keeping pets (EPA Factsheet: Protect Your Pets from Wildfire Smoke) and livestock (EPA Factsheet: Protect Your Large Animals and Livestock from Wildfire Smoke) safe and healthy during wildfire smoke events. Research indicates that both people and animals may experience various long-term health effects after exposure to wildfire smoke.

ONE HEALTH NEEDS ASSESSMENT FINDINGS

PRIORITY ONE HEALTH ACTIONS FOR WASHINGTON

Prioritization of One Health Actions Diagram. **The letter labels on this figure correspond to the identification letters in the Prioritization of One Health Actions Table.**



Key (Descriptions are shortened. See Prioritization of One Health Actions Table for full descriptions)

A	Addressing antimicrobial resistance through collaboration, advocacy, training, and data sharing	^	Actions G, I and J all overlap at this point. G Implementing a One Health approach for addressing climate impacts on health; I Understanding antimicrobial resistance contributors and surveillance; J Preventing and controlling contaminants and pollutants	O	Sustaining aquatic ecosystems
B	Optimizing cross-sectoral data interoperability			P	Improving vector surveillance
C	Moving preventive work upstream using a One Health lens and promoting health equity	*	Actions H, L, and M all overlap at this point. H Developing agency-level One Health strategies and approaches; L Improving zoonotic and vector-borne disease case investigations; M Preparing and responding to disasters from a One Health perspective	Q	Incorporating occupational health into One Health
D	Improving outbreak/pandemic preparedness and response			R	Supporting and maintaining biodiversity through education and collaboration
E	Conducting agency-level data/surveillance needs assessments and advocating for optimal systems	K	Improving harmful algae bloom event reporting, citizen outreach, and cross-sectoral collaboration	S	Improving animal surveillance
F	Advocating and collaborating to move animal health prevention work upstream	N	Advocating for policy changes to support biodiversity	T	Engaging and developing partnerships for comprehensive small animal systems

Prioritization of One Health Actions Table. **All 20 One Health actions are listed along with their calculated total score, readiness score, and impact score. The One Health actions are listed highest to lowest total score. When total scores are tied, the One Health actions are listed by highest to lowest impact score, if possible.**

ID letter	Total Score	Readiness	Impact	One Health Action
A	13.50	5.50	8.00	Addressing antimicrobial resistance in Washington through collaborative efforts, joint advocacy, training, and data sharing for improved antimicrobial stewardship and monitoring of antimicrobial resistance in humans, animals, and the environment.
B	12.50	4.75	7.75	Optimizing cross-sectoral data interoperability through standardization and improved data sharing processes, ultimately developing a cross-cutting One Health data system for human, animal, and environmental health and inclusive of data from state, local, private, institutional, and tribal sectors to enable joint visualization and analysis.
C	12.50	5.00	7.50	Moving preventive work upstream using a One Health lens to promote health equity through cross-sectoral relationship building, collaboration, and advocacy.
D	12.50	5.25	7.25	Improving outbreak/pandemic preparedness and response through joint advocacy, public engagement, data sharing, and strengthened cross-sectoral collaboration, especially for zoonotic and vector-borne diseases.
E	12.25	4.50	7.75	Conducting agency-level data and surveillance needs assessments and advocating for optimal data and surveillance for tracking and reporting.
F	12.00	4.75	7.25	Increasing an inclusive network of animal health stakeholders beyond the traditional partners, advocating for Public Health/One Health studies at all education levels, and prioritizing ongoing collaborations to identify shared goals to move animal health prevention work upstream.
G	11.50	4.00	7.50	Implementing a One Health approach for addressing climate impacts on health, with a focus on health equity, environmental justice, surveillance capacity, professional and public engagement, and advocacy.
H	11.50	4.25	7.25	Developing agency-level One Health strategies and approaches to unify priorities, data, education, research, communication, and public messaging.
I	11.50	4.25	7.25	Understanding existing antimicrobial resistance contributors and surveillance.
J	11.50	4.25	7.25	Preventing and controlling contaminants and pollutants through community engagement, evaluation, and policy assessment.
K	11.50	5.00	6.50	Improving harmful algae bloom event reporting outlets for providers and citizens and identifying new opportunities for citizen outreach and cross-sectoral collaboration to predict and mitigate impacts of harmful algae blooms on humans, animals, and the environment.
L	11.50	5.00	6.50	Improving zoonotic and vector-borne disease case investigations through improving cross-sectoral partnerships, adopting the One Health approach, and building public trust.
M	11.50	5.00	6.50	Preparing and responding to disasters from a One Health perspective including capacity and coordination.
N	10.75	4.00	6.75	Advocating for policy changes to reflect efforts supporting and sustaining biodiversity with concurrent focus on sociodemographic factors.

ID letter	Total Score	Readiness	Impact	One Health Action
O	10.50	4.25	6.50	Sustaining aquatic ecosystems for biodiversity and other ecological functions like production.
P	10.5	4.25	6.25	Improving vector surveillance data practices by building partnerships, increasing communication between agencies, and increasing data sharing at local, state, and national levels.
Q	10.5	4.75	5.75	Incorporating occupational health into One Health through partnership building and strengthening community trust (e.g., whole workforce and employers).
R	9.75	3.00	6.75	Supporting and maintaining biodiversity through channels such as education and collaboration.
S	9.75	3.25	6.50	Improving animal surveillance data practices by expanding multicentric lab systems and increasing joint advocacy between sectors to make legislative change.
T	7.25	2.75	4.50	Engaging and developing partnerships with stakeholders to implement comprehensive small animal systems with an emphasis on zoonotic and emerging disease conditions.

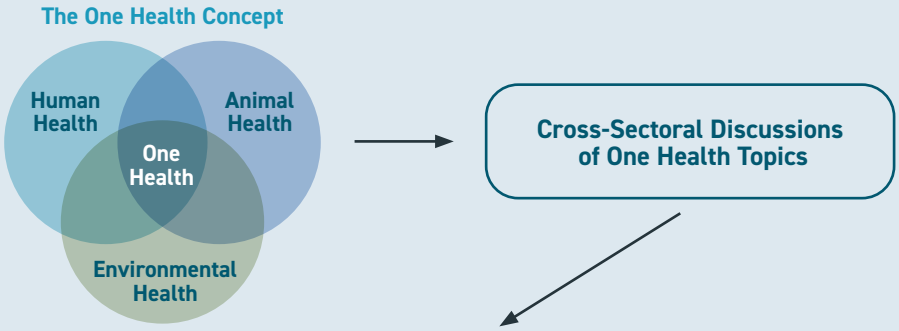
HIGH IMPACT AND HIGH READINESS (Top Five Combined Scores)

- Addressing antimicrobial resistance in Washington through collaborative efforts, joint advocacy, training, and data sharing for improved antimicrobial stewardship and monitoring of antimicrobial resistance in humans, animals, and the environment.
- Optimizing cross-sectoral data interoperability through standardization and improved data sharing processes, ultimately developing a cross-cutting One Health data system for human, animal, and environmental health and inclusive of data from state, local, private, institutional, and tribal sectors to enable joint visualization and analysis.
- Moving preventive work upstream using a One Health lens to promote health equity through cross-sectoral relationship building, collaboration, and advocacy.
- Improving outbreak/pandemic preparedness and response through joint advocacy, public engagement, data sharing, and strengthened cross-sectoral collaboration, especially for zoonotic and vector-borne diseases.
- Conducting agency-level data and surveillance needs assessments and advocating for optimal data and surveillance for tracking and reporting.

In addition, one action was ranked in the top five impact scores but had a low readiness score: *Implementing a One Health approach for addressing climate impacts on health, with a focus on health equity, environmental justice, surveillance capacity, professional and public engagement, and advocacy.* The high impact but low readiness score indicates additional readiness work is required on this topic. Indeed, the Prioritization of One Health Action Diagram demonstrates high impact actions with varying levels of readiness. While we have highlighted the actions with the highest impact and highest readiness for immediate attention, we acknowledge that all 20 One Health actions require more resources and effort to improve health and cross-sectoral coordination in Washington state. Readers may use the Ranking worksheet to understand how the participants defined impact and readiness.

Moving from One Health Actions to Potential Approaches

Workshop participants discussed barriers, gaps, strengths, needed actions, and potential approaches related to the 20 pre-defined One Health topics. Summaries of these discussions for the top 5 prioritized One Health actions are outlined here.



Top Five Prioritized One Health Actions

Paving a path forward for addressing antimicrobial resistance in WA through joint advocacy for practical implementation of antimicrobial resistance response	Optimizing cross-sectoral organizations data collection through standardization and data sharing	Moving preventive work upstream by expanding partnerships and increasing utilization of education and outreach efforts	Improving emergency response and preparedness by identification and coordination of cross-sectoral partners for zoonotic and vector-borne disease planning capacity	Optimizing data systems for tracking and reporting One Health data by increasing access, addressing governance, and streamlining systems
STRENGTHS Academic support, Expertise, Laboratory capacity	**STRENGTHS** Cross-sectoral collaboration, Data sharing	**STRENGTHS** Public increased awareness of diseases, Capacity to build partnerships	**STRENGTHS** Academic support, Cross-sector relationships, Workforce enthusiasm	**STRENGTHS** Existing cross-sector collaboration efforts
BARRIERS Data sharing, Cross-sector relationships, Engagement with the public, Funding, Silos, Surveillance, Training	**BARRIERS** Data sharing, Cross-sector communication, Funding, Workforce attrition	**BARRIERS** Engagement with impacted communities, Funding	**BARRIERS** Data sharing, Engagement and trust with public, Funding, Regulations and protocols, Silos	**BARRIERS** Data sharing, Cross-sectoral and cross-disciplinary engagement, Silos

Developing Potential Approaches

After each working group discussed strengths, barriers and gaps for their One Health Action, they evaluated possible approaches that would positively affect the Action. Working group participants considered best practices and successful examples from other jurisdictions, and they utilized the OH JPA's Pathways of Change to assess potential approaches (see Facilitation Guide for more detail). Participants then chose from listed approaches based on feasibility in the next five years.

Short-Term Approaches Categorized by OHHLEP and OH JPA Pathways of Change

Pathway 1: Policy, Advocacy, and Financing	Advocate for legislative change and training requirements	Advocate for a One Health data system	Advocate for funding Advocate for using the One Health approach	Advocate for increased funding and policy change Evaluate and improve emergency response procedures and protocols	Advocate for needed changes after evaluation for data systems
Pathway 2: Organizational development, implementation, and sectoral integration	Increase outreach and engagement with animal and agriculture health Incorporate the Minnesota Antimicrobial Stewardship Program workgroup structure	Increase data literacy in the public and educate about the importance of One Health Data	Engage and collaborate across agencies, stakeholders, and impacted communities	Create organizational charts and make information accessible to the public and stakeholders	Establish small working groups
Pathway 3: Data, evidence, education, and knowledge exchange	Establish an MOU for data sharing and a structure for collecting surveillance data	Evaluate data systems to identify areas for improvement	Use citizen science to improve surveillance	Establish data sharing agreements	Increase data access and sharing Evaluation of data systems

CURRENT STATE OF ONE HEALTH EFFORTS IN WASHINGTON

During the working groups and report out discussions, participants reviewed strengths and barriers for implementation of all 20 One Health actions. Overarching strengths and barriers were identified across the One Health actions:

Identified Strengths

WA has a history of **utilizing multiagency or multisectoral coordination** to overcome complex health challenges. Many participants shared success stories of multisectoral coordination typically describing outbreak response, the creation of the One Health Collaborative, or One Health resources at academic institutions in the state. Generally, academic institutions are seen as a main source for knowledge sharing, research, training, and technical resource support for other agencies.

> DOH and LHJs were able to [collaborate with] other agencies during the avian flu outbreak and improve communication across agencies. – Group H

The COVID-19 pandemic caused ripple effects throughout public health communication and engagement practices with the public. Participants shared an **improved understanding of communication and engagement best practices** due to the experiences in public messaging and outreach during the COVID-19 pandemic. Similarly, there has been an increase in political and public attention on infectious diseases and the One Health approach along with improved health literacy. Participants attributed the improved health literacy to the increased messaging and engagement with the public and the use of citizen science (i.e., scientific research conducted with participation from the general public, typically as a collaborative project). Participants emphasized the importance of **political and public attention, as well as health literacy**, in maintaining momentum in advocating for One Health work in the state.

> We have communication experience with the COVID-19 pandemic messaging and social media. – Group H

> We have a general political and academic interest in One Health which can support our funding and policy efforts. – Group B

WA's **workforce retains diverse, motivated, and One Health-oriented experts**. While participants expressed this sentiment in the working group discussions, it is also evident by the 124 individuals who traveled to the OHNA Workshop. With a One Health approach in mind, many participants recognize a need to include the environmental health sector and perspectives in more health actions.

> [We have] staff enthusiasm and interest in improving multiagency coordination and jumping into new roles or health responses – Group D
>
> The OHNA workshop proves that people are interested, and stakeholders are being engaged... – Group E

Identified Barriers and Gaps

Participants identified a lack of infrastructure to engage directly with affected communities to support development of appropriate One Health messaging. This lack of connection and appropriate messaging is influenced by a lack of trust and knowledge shared between the communities and health organizations.

> We lack community engagement and access to community health workers, educational consultants to develop and promote messaging. – Group C
>
> [We are] missing the community component. How do we help build trust and knowledge to make changes? Community partners are stakeholders in cross-sectoral conversations. – Group J
>
> [We need to] increase public trust and buy-in toward government agencies and public health through increased engagement and communication outside of public health emergencies. – Group L

Data systems are siloed, resulting in a lack of data sharing and access. Identified data system issues included **inconsistency of data collection, quality, and reporting; poor data system capacity; a lack of inventory of what data systems exist; a lack of expert personnel; and strict data governance**. Without resolving these issues, human, animal, and environmental health data will continue to be siloed and will not optimally illustrate One Health conditions and outcomes.

> Current systems are centered around either human or environmental or animal health. These systems do not connect readily, and data governance/security or stewardship may be a barrier in accessing it. Even if access is resolved, the systems are rigid and hard to change to include new needs. – Group E
>
> Data is in silos. We need data consistency. It may help to start with knowing who has what data. – Group G

One Health work is challenging to fund, because **funds are siloed into sector-specific work**. Participants shared that funding is inconsistent and unreliable. Those who discussed surveillance efforts found funding especially difficult as funding is often granted to react to issues rather than to support monitoring or preparedness efforts.

> NIH doesn't want to fund One Health because it is not fully human. Veterinary agencies don't want to fund [One Health] because it is not fully animal. Who do we go to? – Group L

Workforce training occurs in silos and training mechanisms are inconsistent, exacerbating issues such as high workforce attrition and a lack of interdisciplinary education. Participants acknowledge a lack of sufficient training mechanisms and express that information and relationships are often lost when employees retire or leave the agency for higher wages elsewhere. Medical and veterinary students are not cross-trained in public health or One Health, which contributes to a lack of collaboration and upstream prevention work.

> Staff turnover leads to a loss of associated knowledge. – Group D
>
> Human clinicians are not taught public health and they are not taught how different disciplines and sector work alone and together. – Group F

Relatedly, the state faces **silos across sectors**, within agencies, and between disciplines that prevent shared access to training, funding, data, and knowledge. Thus, while experiences in implementing a multisectoral, collaborative approach have led to successful outcomes (often in disease outbreak response), they are not commonly practiced for addressing many other One Health issues due to embedded silos in the state.

> [It requires] long periods of time to start collaborations and assign roles. There is currently not enough communication between different groups leading to overlap of work. – Group R
>
> [There is] lack of integration of ideas across sectors. A lack of collaboration between public and private. ...Where does public health fit as a whole? – Group M
>
> [We need] to increase data sharing across sectors and pursue non-traditional routes to get rid of siloed funding. A lack of funding prevents us from having better coordination among sectors... – Group F

DESIRED STATE OF ONE HEALTH EFFORTS IN WASHINGTON

A Glimpse of the One Health Big Picture Discussion

The One Health Big Picture discussion, which was held toward the close of the workshop, highlighted that all One Health work requires a funded overarching One Health structure in the state to support consistent and collaborative efforts.

Identified Approaches

During the working group and report out discussions, participants voiced potential approaches to overcome barriers and achieve the 20 One Health actions. A summary of the approaches organized by theme follows:

Multisectoral collaboration

- Establish leadership for all One Health efforts using a clear mission statement and supporting smaller meetings or workgroups (e.g., a fully funded multisectoral One Health Program).
- Develop a One Health contact list and organizational charts for increased communication and collaboration, including tribal representatives and local communities.
- Establish frequent, small, focused meetings or workgroups to address specific challenges.
- Start by identifying stakeholders, engaging communities, creating shared goals, building relationships, and sharing knowledge to combat current and future One Health challenges.
- Develop inventories of One Health work throughout the state.
- Coordinate for cross-training.
- Perform more focused needs assessments or evaluations to identify challenges and paths forward in specific areas of One Health.
- Continue to host One Health conferences or workshops for engagement and shared knowledge.
- Identify and unite multisectoral stakeholders and lobbyists to advocate for new or updated policy, regulations, and protocols.

> Steering committees can help keep "the movement" on track. – Group E

Data Systems

- Consider One Health data structures at the time of systems development.
- Improve data access through standardized, automated sharing and integration of data.
- Use One Health data to perform work proactively rather than reactively.
- Standardize trainings for data management and for systems to improve onboarding.
- Create a steering committee or workgroup for One Health data initiatives, with a funded position(s) to coordinate activities across sectors.
- Lobby and advocate on the importance of One Health data as a proactive and cost-effective prevention strategy.
- Perform a needs assessment and systems mapping prior to the creation of a One Health database or One Health data infrastructure.

> Emphasize the importance of creating a One Health [system] … it's a priority, but it's hard to get leadership to buy-in and want to fund it. [Issues include] cross collaborative barriers, staffing issues, and lack of awareness… Even before getting there, the transdisciplinary work requires knowing what each organization needs. – Group E
>
> One Health data systems help support intersectional health efforts. Improving human health helps animal health helps environmental health. Reciprocity between the sectors. Therefore, human data plus animal data plus environmental data [would be] useful altogether… Currently our systems are reactive, but these systems can help us be preventative instead. – Group B

Workforce

- Strengthen capacity and talent acquisition at the local level.
- Recruit or engage community health workers to increase community engagement and education.
- Use cross-training to combat silos in the workplace and to increase employees' familiarity with other related work.
  - Train health students using a One Health focus and break silos before students enter the workforce.
  - Training programs should cross agency lines.
- Focus on professional growth, retention, shared knowledge, and diversity in the workforce.

> Recognizing our limitations and leveraging our strengths together bolsters workforce response. – Group B
>
> [Plan] talks at different agencies to promote a more interconnected approach and understand how [we] can work together. – Group S

Surveillance

- Use citizen science for surveillance.
  - Examples of surveillance opportunities include wild animal health surveillance, tick surveillance, and toxic algae surveillance by community-based hunter networks and county citizen science group.
  - Allows health agencies to build partnerships and health science literacy amongst the public.
- Enhance multicentric lab system capacity.
  - Hold laboratory trainings across the state.
- Standardize monitoring equipment.
- Build relationships and communication to increase surveillance capacity.

> Focus on partnership surveillance [for] all diseases, including zoonotic, imported, and emerging diseases. [Surveillance in the] pet industry and animal shelters, including cat cafes and dog day cares, vet offices and vet labs, [at the] pet-wildlife interface, and [with] wildlife partners. – Group T

Funding

- Secure proactive and sustained funding to prevent One Health issues from arising such as disease outbreaks.
- Identify funding sources and advocate for One Health funding.

> It is important to get funding to prevent disease. – Group O

PATH FORWARD

The One Health Needs Assessment identified strengths, barriers, and gaps of One Health topics in the state, revealed a ranked list of 20 priority One Health actions, and shared actionable approaches for policy change, program activities, and funding. Further collaboration is needed to measurably impact these prioritized actions. Specifically, a multisectoral, coordinated approach should be used to further define goals and next steps, as well as measurable outcomes. This assessment demonstrated a high level of interest in One Health across organizations and described critical topics to address for One Health implementation in Washington state. Animal, environment, and human health sectors should work together and leverage this report to improve the health of human and animal residents of Washington state and the environment we all share.

APPENDICES

Appendix A. Planning Committee members.

Name	Position(s)	Organization
Alyssa Aguilar	Health Services Consultant, One Health Needs Assessment Coordinator	Washington State Department of Health
Dr. Beth Lipton	State Public Health Veterinarian	Washington State Department of Health
Hanna Oltean	Zoonotic and Vector-borne Disease Program Manager, Senior Epidemiologist	Washington State Department of Health

Appendix B. Advisory Committee members.

Name	Position(s)	Organization
Dr. Minden Buswell	Reserve Veterinary Corps Coordinator & Field Veterinarian	Washington State Department of Agriculture
Rad Cunningham	Climate and Health Manager & Senior Epidemiologist	Washington State Department of Health
Dr. Marisa D'Angeli	Medical Epidemiologist, Healthcare Associated Infections Program	Washington State Department of Health
Holly Thompson Duffy	Environmental Health Science Manager	Northwest Portland Area Indian Health Board
Dr. Elizabeth Dykstra	Public Health Entomologist	Washington State Department of Health
Dr. Katherine Haman	Wildlife Veterinarian (Diversity species)	Washington State Department of Fish and Wildlife
Dr. Amber Itle	State Veterinarian	Washington State Department of Agriculture
Kelly Kauber	Multidrug-resistant Organisms/Antimicrobial Stewardship Program Supervisor & Senior Epidemiologist	Washington State Department of Health
Dr. Vance Kawakami	Public Health Veterinarian, Communicable Disease Epidemiology and Immunization Section	Public Health - Seattle & King County
Dr. Meagan Kay	Deputy Chief, Communicable Disease Epidemiology and Immunization Section	Public Health - Seattle & King County
Dr. Beth Lipton	State Public Health Veterinarian	Washington State Department of Health
Dr. Kristin Mansfield	State Wildlife Veterinarian	Washington State Department of Fish and Wildlife
Hanna Oltean	Zoonotic and Vector-borne Diseases Program Manager & Senior Epidemiologist	Washington State Department of Health
Todd Philips	Director, Office of Environmental Health and Safety	Washington State Department of Health
Dr. Peter Rabinowitz	Director, Center for One Health Research & Professor, Dept of Environmental and Occupational Health Sciences	University of Washington
Vickie Ramirez	Senior Program/Research Manager, Center for One Health Research	University of Washington
Dr. Kevin Snekvik	Executive Director & Professor, Washington Animal Disease Diagnostics Laboratory	Washington State University

Appendix C. Pre-identified One Health Topics and Subtopics accessible by link or QR code.

https://doh.wa.gov/sites/default/files/2023-06/OHNA2023WorkingGroupDiscussionTopics.pdf

Appendix D. Comparison of the process elements across the OHZDP, OH-SMART™, or OHNA workshops.

OH JPA was not included for comparison as it has not been implemented as a standalone workshop. Certain aspects of the OH JPA were incorporated into the OHNA Workshop column as they influenced the prioritization process and facilitation guide.

Process Element	OHZDP Workshop[12]	OH-SMART™ Workshop[13]	OHNA Workshop
Number of local facilitators	3-5 facilitators	10-15 facilitators	12 facilitators
Criteria for facilitator selection	• Excellent diplomatic abilities • Effective writer and speaker • At a stage in their profession that will earn them the respect of participants, but not too advanced as to preclude candid conversation throughout the workshop • Ideally, facilitators will receive professional benefit.	• Recognizes the One Health concept • Kind and extroverted nature and is at a stage in their profession that they are trusted by their colleagues • Technical leadership position within their agency • Working knowledge of technical and operational activities of their agency and participant in multisectoral One Health issues • Capable of discussing the current state of their agency with cross-sectoral partners • Capable of carrying out the OH-SMART™ process and actively encouraging colleague participation in addressing One Health issues • Willing to be a facilitator for additional OH-SMART™ processes	• Recognizes the One Health concept • Kind and extroverted nature and is at a stage in their profession that they are trusted by their colleagues • Technical leadership position within their agency • Working knowledge of technical and operational activities of their agency and participant in multisectoral One Health issues • Capable of discussing the current state of their agency with cross-sectoral partners • Capable of carrying out the OH-SMART™ process and actively encouraging colleague participation in addressing One Health issues • Willing to be a facilitator for additional OH-SMART™ processes • Public health employees or graduate students with a background in public health, animal health, or One Health • Comfortable with the volunteering expectations and tasks • At a stage in their profession that will earn them the respect of participants, but not too advanced as to preclude candid conversation throughout the workshop

Process Element	OHZDP Workshop[12]	OH-SMART™ Workshop[13]	OHNA Workshop
Recruitment for participants	The local government invited participants representing human health, animal health, and environmental/wildlife health sectors, and other identified partners. Typically, the workshop has up to 12 voting members and 15-20 advisors.	Invites key people (2-3 at least) from each agency or stakeholder group identified through the interview and mapping process to attend a multiagency workshop.	The Advisory Committee prepared the list of attendees and was allowed to extend the invitation through their networks. Snowball recruitment occurred, with identified participants allowed to extend their invitation to colleagues. Invitations were sent to academic institutions, tribal representatives, LHJs, and other public, animal, human, and environmental health organizations or representing partners. We focused on promoting this event within networks to maximize engagement.
Literature review	A location specific review for zoonotic diseases of interest. This results in the initial evaluation list for zoonotic disease ranking and typically has close to 40 diseases listed.	No literature review. To gain preliminary information about the system, implementers identify cross-sectoral networks and hold key stakeholder interviews.	Synthesis of existing One Health frameworks, strategies, reports, and assessments.
Assessment of the current health system prior to the workshop	This is done through a literature review to describe the list of zoonotic diseases in the area.	Key stakeholder interviews to gain insight into the knowledge, attitudes, and practices of each agency in the cross-sectoral network.	Facilitated discussion with the Advisory Committee to gain insight into the needs, attitudes, and practices of the agencies and in the cross-sectoral networks. Individual follow-up interviews were conducted when more information was needed.
Duration of workshop	2 days	2 days	2 days
Workshop steps	Before the workshop: Logistics and preparation During the workshop: 1. Finalize initial zoonotic disease list 2. Develop criteria 3. Develop questions 4. Rank the criteria 5. Score and Rank the zoonoses 6. Prioritize zoonotic diseases 7. Discuss next steps and action plans After the workshop: Partners advocate and implement recommended next steps and action plans to implement a One Health approach for the priority zoonotic diseases.	• Identify partner networks • Interview partners • Map outbreak response system • Analyze the system • Identify opportunities for improvement • Develop an action plan	Before the workshop: • Establish Advisory Committee • Literature review to understand current One Health frameworks. • Recruit and train volunteers. • Complete preparation logistics • Develop facilitation guide and prioritization tool During the workshop: • Working Group Discussion break outs to collaborate on the 20 One Health topics pre-identified by the Advisory Committee • Participants prioritize the One Health actions using a semi-quantitative ranking process After the Workshop • Thematic analysis of working group discussion notes to • Calculation of One Health prioritization
Prioritization process	Decision tree analysis is used to rank the zoonotic disease list created during the literature review. Voting members discuss this ranked list to determine the final order of priority.	None.	Participants use a Ranking Worksheet to evaluate the readiness and impact of 20 One Health actions. Assessments of readiness and impact was influenced by the OH JPA.

Process Element	OHZDP Workshop[12]	OH-SMART™ Workshop[13]	OHNA Workshop
Analysis of the One Health system	Once the ranking is finalized, participants discuss existing multisectoral collaboration, surveillance, workforce, and outbreak response for the top ranked diseases.	Uses an implementers guide consisting of mapping tools to analyze the existing One Health system and improve multisectoral coordination. • Identifies best practices and solutions to strengthen system operations	Uses the stepwise facilitation guide to analyze pre-identified One Health topics and evaluates the multisectoral coordination across each topic. • Identifies best practices and potential approaches to reach the desired state of the one health topic
Solution identification and action planning	Discussion based—participants identify next steps to address gaps and improve multisectoral collaboration for the top ranked diseases.	Discussion based—participants identify next steps to address gaps and improve multisectoral collaboration for the One Health system of interest.	Discussion based—participants identify next steps to address gaps and barriers and improve multisectoral collaboration and increase uptake of the One Health approach. The analysis of potential One Health actions and approaches is influenced by the OH JPA Theory of Change.
Generalized outcomes	• A list of priority zoonotic disease, as determined by One Health sector representatives • Action plans for multisectoral one health engagement concerning the prioritized zoonotic diseases, and recommendations for following actions • Knowledge of the duties and functions of each represented One Health sector • The development or improvements of networks and multisectoral, One Health coordination • A report highlighting the findings of the workshop to support activities for One Health priorities	• Mapping and analyzing cross-agency systems of coordination and collaboration • Mapping and improving how agencies are coordinating and collaborating around specific crisis, outbreak, or other complex challenge • Improving cross-sectoral system through pro-active planning, retroactive analysis of events or just in time during a crisis • It identifies best practices and action items for improvement • It helps participants identify opportunities for system improvement and fosters the development of improvement plans	• Foster new collaborations and partnerships • Understand areas that benefit from One Health collaboration and facilitate One Health conversations • Prioritize the One Health goals agreed on by multisectoral, One Health partners • Develop a report of the assessment to guide funding, program activities, and policy decisions

Appendix E. Facilitation Guide accessible by link or QR code.

https://doh.wa.gov/sites/default/files/2023-06/OHNA2023FacilitationGuide.pdf

Appendix F. Ranking Worksheet accessible by link or QR code.

https://doh.wa.gov/sites/default/files/2023-06/OHNA2023RankingWorksheet.pdf

Appendix G. Participant sectors and organizations.

Sector	Organization
Public-local	Benton County Mosquito Control District
Public-local	Benton-Franklin Health District
Public-local	Clark County Public Health
Academia	Central Washington University
Academia	Eastern Washington University
Private	Focus Wildlife
Public-local	Grant County Health District
Public-local	Island County Public Health
Public-local	Kitsap Public Health District
Public-local	Kittitas County Public Health
Private	PAWS – Progressive Animal Welfare Society
Private	Private Veterinarian/Consultant
Public-local	Public Health - Seattle & King County
Public-local	San Juan County Health & Community Services
Public-local	Skagit County Public Health
Public-local	Snohomish County Health Department
Public-local	Tacoma-Pierce County Health Department
Public-local	Thurston County Public Health and Social Services
Academia	University of Washington (Center for One Health Research, Department of Epidemiology, Department of Environmental & Occupational Health Sciences, Other)
Federal	United States Department of Agriculture Animal and Plant Health Inspection Service - Veterinary Services
Federal	United States Fish and Wildlife Services
Federal	United States Geological Survey - Western Fisheries Research Center
Public-local	Washington State Association of Local Public Health Officials
Public-state	Washington State Department of Health (, Office of Strategic Partnerships, Office of Communicable Disease Epidemiology, ORHS, PHL, EH, Other)
Public-state	Washington State Department of Agriculture
Public-state	Washington State Department of Fish and Wildlife
Public-state	Washington State Department of Health (Healthcare-Associated Infections and Antimicrobial Resistance Section, Office of Strategic Partnerships, Office of Communicable Disease Epidemiology, Office of Resiliency and Health Security, Public Health Laboratories, Office of Environmental Health and Safety, Other)
Public-state	Washington State Department of Labor and Industries
Academia	Washington State University (College of Nursing, College of Veterinary Medicine, Washington Animal Disease Diagnostic Laboratory, Other)

References

1. Evans BR, Leighton FA. A history of One Health. Rev Sci Tech. 2014 Aug;33(2):413-20. doi: 10.20506/rst.33.2.2298. PMID: 25707172.
2. Transformational Plan: A Vision for Health in Washington State (2022-2024). Washington State Department of Health. https://doh.wa.gov/about-us/transformational-plan (accessed May 1, 2023).
3. One Health Zoonotic Disease Prioritization (OHZDP) | One Health | CDC. 2022; published online Dec 12, 2022. https://www.cdc.gov/onehealth/what-we-do/zoonotic-disease-prioritization/index.html (accessed May 1, 2023).
4. Home | OH-SMART (One Health Systems Mapping and Analysis Resource Toolkit). https://oh-smart.umn.edu/ (accessed May 1, 2023).
5. FAO, UNEP, WHO and WOAH. 2022. One Health Joint Plan of Action (2022–2026). Working together for the health of humans, animals, plants and the environment. Rome. https://doi.org/10.4060/cc2289en
6. 29 September 2004 Symposium. http://www.oneworldonehealth.org/sept2004/owoh_sept04.html (accessed June 28, 2023).
7. Riley T, Anderson NE, Lovett R, Meredith A, Cumming B, Thandrayen J. One Health in Indigenous Communities: A Critical Review of the Evidence. Int J Environ Res Public Health 2021; 18: 11303. doi: 10.3390/ijerph182111303. PMID: 34769820; PMCID: PMC8583238.
8. One Health. Washington State Department of Health. https://doh.wa.gov/community-andenvironment/one-health (accessed May 1, 2023).
9. WSALPHO. Local Public Health Workforce Report. 2023. https://www.wsalpho.org/wp-content/uploads/2023/02/WSALPHO-Local-Public-Health-Workforce-Report.pdf
10. Foundational Public Health Services. Washington State Department of Health. https://doh.wa.gov/public-health-healthcare-providers/public-health-transformation (accessed May 1, 2023).
11. Step 1: Needs Assessment | Guidance Portal. https://www.hhs.gov/guidance/document/step-1-needs-assessment (accessed May 1, 2023).
12. Needs Assessment. https://ors.od.nih.gov/OD/OQM/ca/Pages/Needs_Assessment.aspx (accessed May 1, 2023).
13. One Health Tools & Toolkits - One Health Commission. https://www.onehealthcommission.org/en/resources__services/one_health_tools__toolkits/(accessed May 1, 2023).

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