



CANADIAN ANIMAL HEALTH SURVEILLANCE SYSTEM

# ACHIEVEMENT REPORT

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2022-2024

Canadian  
Animal  
Health  
Surveillance  
System



CAHSS  
DIVISION OF ANIMAL HEALTH CANADA



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2022-2024

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# CAHSS **APPROACH, FOCUS & VISION**

## OUR VISION

National collaboration and information sharing leading to effective, responsive, integrated animal health surveillance in Canada.

## OUR MISSION

To bring together and use data-driven information to demonstrate animal health, minimize impacts of disease and guide surveillance planning from a national perspective.

## ORGANIZATION DESCRIPTION

CAHSS is a distinct division of **Animal Health Canada (AHC)**. AHC incorporates distinct divisions and projects and brings together industry, federal, provincial, and territorial partners to provide collaborative guidance on a cohesive, functional, and responsive farmed animal health and welfare system in Canada.



—  
ABOUT  
CAHSS



## LETTER FROM CAHSS



**DR. DORIS LEUNG**  
CAHSS DIVISION  
DIRECTOR

Dear CAHSS Community,

As we reflect on the past two years in our Achievement Report, I am proud to highlight our continuous commitment to advancing animal health and disease surveillance efforts in Canada. With the completion of CAHSS under the Canadian Agricultural Partnership (CAP) funding cycle, we recognize that it is more than a project, but it embodies our dedication to the One Health approach and the power of social connections and relationship building across sectors and disciplines that bolster national animal health surveillance.

From 2022 to 2024, we have made significant strides in building a robust social surveillance 'network of networks' that fosters collaboration with industry, government, academia, research, public and animal health agencies and organizations; allowing for evidence-based information to inform policy-making and actions that protect animal and One Health. By working together, we have harnessed the collective power of our communities to enhance surveillance capabilities and improve our response to emerging issues and threats.

Our partnerships with diverse surveillance stakeholders have contributed to continuous sharing of data-driven information and insights, as well as valuable resources that would not have existed if we worked in siloes. This has allowed us to efficiently identify potential risks more effectively and implement proactive measures. This collaborative spirit is essential for addressing topics of concern: emerging disease of importance, antimicrobial resistance, misinformation/disinformation, and more. We look forward to finding innovative solutions through research and artificial intelligence capabilities to address animal and One Health surveillance and disease response challenges.



Looking ahead, we remain committed to strengthening these connections and advancing One Health initiatives.

To the CAHSS community, thank you for your ongoing support and dedication to this vital mission. I look forward to our continued collaboration as we strive for a healthier future for the Canadian animal sector and for all Canadians. ■



# SPOTLIGHT ON THE CORE TEAM

The CAHSS team has grown in the last few years. The surveillance division is proud to have a core team with diverse skillset, expertise, and professional interests:

**DR. DORIS LEUNG, DIVISION DIRECTOR**

Dr. Doris Leung (New Westminster, BC) is the CAHSS Division Director since 2022. She is a veterinary epidemiologist with experience in disease surveillance, science communication, participatory-based research, and qualitative research methods. She has a Master of Public Health (MPH) from the University of British Columbia and specializes in science communication and One Health stakeholder engagement.

**DR. MURRAY GILLIES, COORDINATOR**

Dr. Murray Gillies is the CAHSS Coordinator since January 2024. Moreover, he is a bovine practitioner, dairy producer, and is currently completing his Master of Science (MSc) degree in veterinary epidemiology and health management at the Atlantic Veterinary College (AVC). His interests are in antimicrobial use/antimicrobial resistance (AMU/AMR), bovine veterinary medicine, disease surveillance, and has been leading the highly pathogenic avian influenza (HPAI) in dairy cattle file within CAHSS. Murray resides in Sussex, NB. He is bilingual.

**DR. MARIANNE PARENT, VETERINARY EPIDEMIOLOGIST**

Dr. Marianne Parent is a veterinary epidemiologist with CAHSS since January 2024, and has recently completed her PhD in veterinary epidemiology at the AVC. She has expertise in quantitative research methods, statistical modelling, data analytics, and data platforms. Marianne has interests in companion and aquatic animal health and disease surveillance. Marianne resides in Dartmouth, NS. She is bilingual.

**TALIA STRANG, ONE HEALTH RESEARCH ASSOCIATE**

Talia Strang is a contractor with CAHSS since 2022. Her professional interests are in One Health, communicable disease surveillance, knowledge translation & transfer. Talia resides in Vancouver, BC.

**STEFAN IWASAWA, ONE HEALTH RESEARCH ASSOCIATE**

Stefan Iwasawa is a contractor with CAHSS since 2021. His professional interests are in veterinary epidemiology and vectors and vector borne disease surveillance (especially ticks!). Stefan resides in Nanaimo, BC.

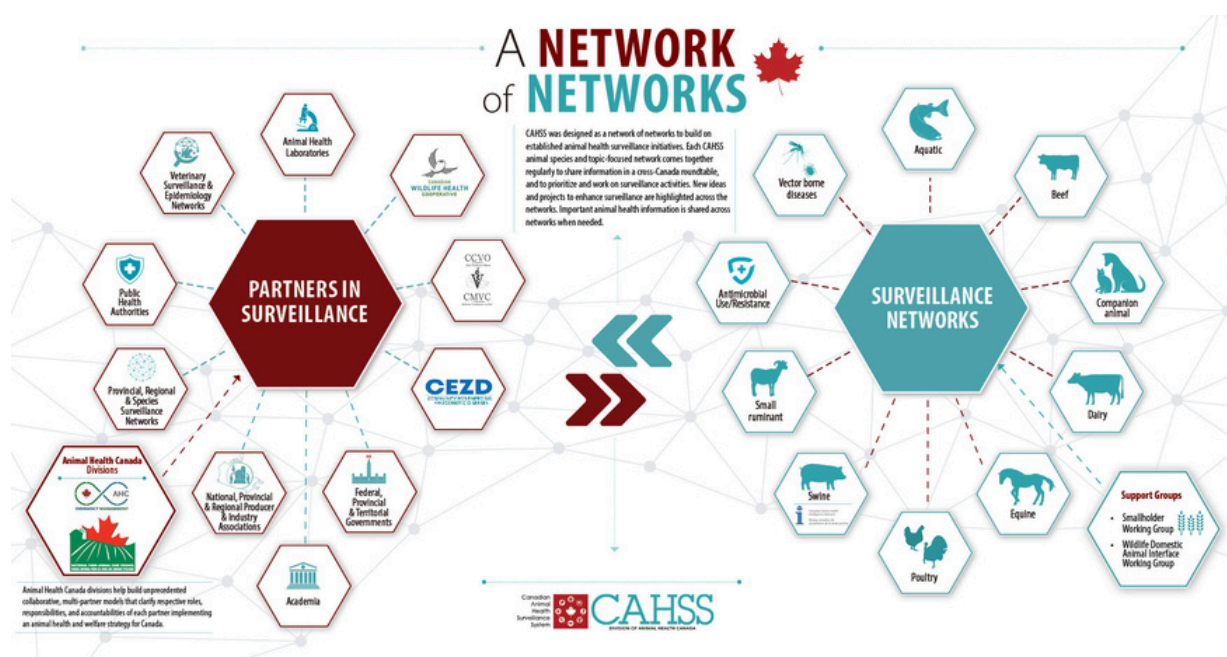


# CAHSS' NETWORK OF NETWORKS

The success of CAHSS is largely credited to its **network of networks** model that is built on established animal health groups and partnerships in Canada. CAHSS acts to ensure that animal health surveillance activities are conducted effectively and efficiently. CAHSS leverages surveillance partners and members for guidance and leadership, as well as the sharing of information and best practices for surveillance within our **seven species specific** (Aquatic, Beef, Companion Animal, Dairy, Equine, Poultry and Small Ruminant) and **two special topics** (Antimicrobial Use/Resistance and Vector-Borne Disease) networks.

**Additional working groups** were formed based on the unique priorities and needs of the network groups, including the smallholder communications working group, horse census working group, and most recently, the small ruminant therapeutics working group.

Each CAHSS network model is the same, but partnerships vary within each network. We are proud to work in collaboration with partners across sectors and disciplines, with representation from the animal and agri-food industry organizations and associations, federal/ provincial/ territorial governments including agriculture, animal health and public health, and environment, animal health laboratories, universities, provincial and regional surveillance networks, and more.



Not only are our CAHSS network members active participants in information sharing at our virtual meetings through the cross-Canada roundtable, members also contribute by identifying surveillance priorities and developing resources and tools to advance and improve animal health in Canada.

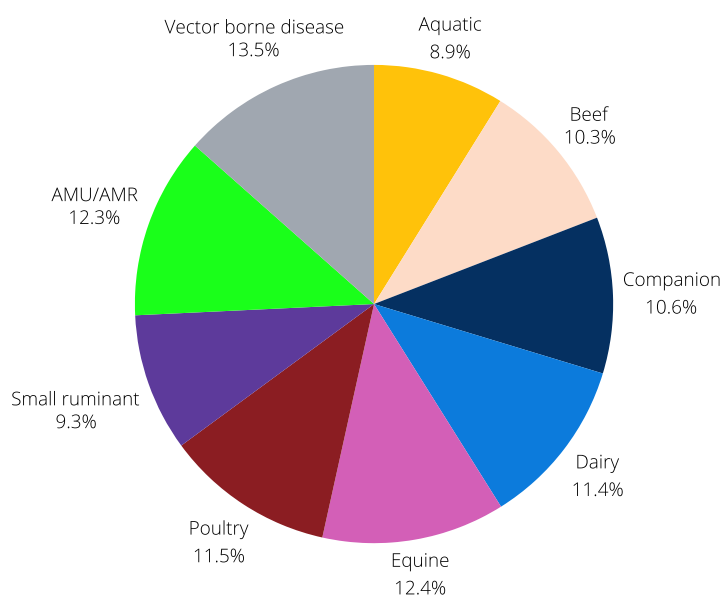
From 2022 to 2024, CAHSS organized a total of **62 network meetings** for our network members, with **over 250 hours** of information and resource sharing that occurred across multi-sectoral groups and agencies.

# 2022-2024 CAHSS MEMBERSHIP

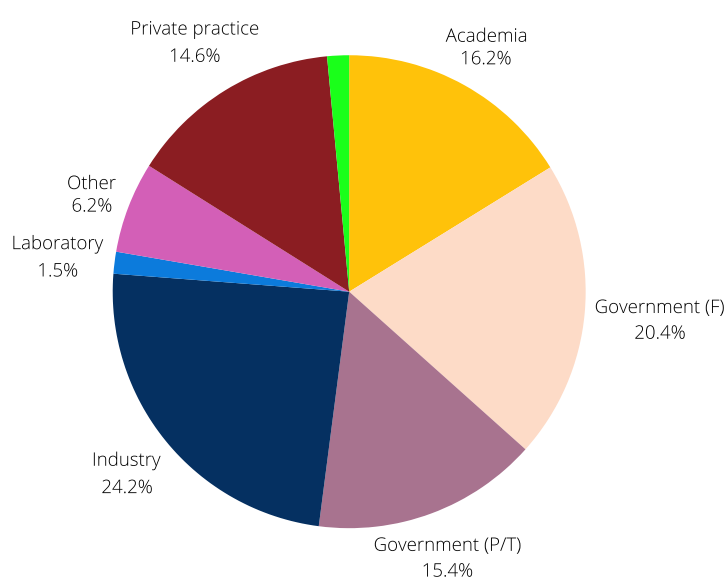


CAHSS membership has **grown 30%** since 2021. We currently have 850 members within CAHSS.

**Membership by CAHSS Species and Special Topics Networks**



**Membership by Organization or Agency**



We encourage our members to log on to the Portal (password protected) side of the [CAHSS website](#) and to update their member profile. Doing so allows us to compile the most up to date information about the composition of our CAHSS members.

MEMBERSHIP  
AT A GLANCE





# CAHSS RESOURCES & TOOLS

## SNAPSHOT

**68K**

### 68K PAGE VIEWS

There has been a total of **68,000** total page views of the [CAHSS website](#) from 2022 to 2024. The top three most landed on pages include: disease alerts notification, CAHSS equine surveillance network, and reportable and notifiable disease table page.



### CAHSS EQUINE NETWORK

The top landing network page for CAHSS networks remains to be the [CAHSS Equine network page](#). The network page includes links to the Equine Diseases Dashboard and an external link to the Equine Disease Communication Center.



### CAHSS TOOLS

A new [Science Bulletin](#) board has been created to serve as a centralized bulletin to capture an inventory of research opportunities, research engagement, grants/scholarships, etc. related to animal health and One Health to support agricultural/veterinary students and new graduates in Canada.



### NEW DASHBOARDS

CAHSS has updated the [resources library](#) and [surveillance initiatives](#) library dashboards and they are both now much more user accessible. In addition, [new dashboards](#) created by external surveillance partners (e.g. CWHC, CFIA, etc.) are now hosted on the CAHSS website.



### ANIMAL HEALTH INSIGHTS

CAHSS's podcast series, Animal Health Insights released **9 new episodes** from 2022 to 2024, with a total of **7157 downloads** on the [CAHSS Podbean page](#).

# CAHSS GOVERNANCE

## STEERING GROUP TO LEAD CAHSS

Overall leadership of CAHSS is provided by the AHC Council, as well as the CAHSS Steering Group, which includes representatives from CAHSS's species networks, as well as Community of Practice members. Community of Practice members are from organizations that provide insight into surveillance oversight and best practices. This includes members from federal/ provincial/ territorial governments, Council of Chief Veterinary Officers (CCVO), and diagnostic laboratories.

The CAHSS Steering Group structure is designed for strong industry representation within CAHSS governance.

### CAHSS LEADERS MEMBERSHIP 2022-2024

#### Steering Group Members

- Species Network Representative (Beef): n/a
- Species Network Representative (Equine): n/a
- Species Network Representative (Poultry): Dr. Cynthia Philippe
- CFIA Representative: Dr. Jagvinder Dhanda
- PHAC Representative: Dr. Richard Reid-Smith
- CEZD Representative: Dr. Andrea Osborn
- CSHIN Representative: Dr. Christa Arsenaault
- Provincial Epidemiologist: Dr. Glen Duizer (Steering Group Chair)
- Diagnostic Animal Health Laboratory Director: Dr. Maria Spinato
- Provincial Chief Veterinary Officer: Dr. Jill Wood

#### Steering Group Observers

- Species Network Representative (Aquatic): Dr. Laura Sitter
- Species Network Representative (Companion Animal): Dr. Erica Sims
- Species Network Representative (Small Ruminant): n/a
- Species Network Representative (Dairy): Dr. Karin Orsel
- Partner Network Representative (WeCAHN): Dr. Barb Wilhelm
- Partner Network Representative (OAHN): Dr. Tanya Rossi
- Partner Network Representative (RAIZO): Dr. Marie Eve Brochu-Morin
- Partner Network Representative (AtCAHN): Dr. Nicole Wanamaker

#### Network Leads

- Aquatic network: Adam Weir
- Beef network: Dr. Cassidy Klima
- Companion animal network: Dr. Hussein Keshwani
- Dairy network: Dave Taylor
- Equine network: Dr. Mary Bell
- Poultry network: Jessica Heyerhoff, Victoria Sikur
- Small Ruminant network: Dr. Fabienne Uehlinger
- Antimicrobial use/resistance network: Dr. Daniella Rizzo
- Vector borne disease network: Drs. Jasmine Dhillon & Shaun Dergousoff

CAHSS network chair representatives are also encouraged to participate in regularly scheduled CAHSS meetings held online with the collective group of **CAHSS Leaders**.

We would like to thank **Ms. Jenn McTavish and Drs. Ashley Whitehead, Joyce Van Donkersgoed, Claudia Gagné-Fortin, and Ian Alexander** for their years of contribution to the CAHSS Leaders group and for their dedicated leadership and work in the past few years.



# ACHIEVEMENTS UNDER CAP (2019-2023)

## COMPLETED CAP PROJECT AND MILESTONES

CAHSS successfully completed the **Canadian Agricultural Partnership (CAP) project**, funded by Agriculture and AgriFood Canada (AAFC) as of March 2023, the project title was “**Enhance Collaboration, Data Integration, Analysis and Reporting**”.

From 2019 to 2023, CAHSS effectively worked on various activities under three categories:

1. Scoping, information sharing, collaboration and data streams
2. Develop a formalized governance structure for the CAHSS division
3. Sustainability planning for the CAHSS division



## WORK AREA 1: SCOPING, INFORMATION SHARING, COLLABORATION AND DATA STREAMS

CAHSS created and housed over 500 unique Canadian resources relevant to animal health and surveillance in English and French within the centralized information hub, the CAHSS website (<http://cahss.ca>). Resource and surveillance initiatives libraries served as evergreen resources - additional documents and initiatives were regularly updated and added as they became available. CAHSS staff worked closely with CAHSS species network groups to develop and maintain a list of surveillance priorities and topics that were relevant for their sector, and documents or surveillance reports associated with those priorities are catalogued and reviewed to generate a comprehensive list of gaps.



CAHSS AT  
WORK

# ACHIEVEMENTS UNDER CAP (2019-2023)

## WORK AREA 1: SCOPING, INFORMATION SHARING, COLLABORATION AND DATA STREAMS (CONTINUED)

In addition to information shared within the CAHSS website and on network surveillance meetings, CAHSS maintained robust 'network of network' connections to 7 species surveillance networks (aquatic, beef, companion animal, dairy, equine, poultry, small ruminant) and 2 special topics surveillance networks (antimicrobial use/resistance, vector borne diseases). Additional working groups were formed based on the unique priorities and needs of the network groups, including the smallholder communications working group, horse census working group, and most recently, the small ruminant therapeutics working group.

Evidence based resources and reports were created relevant to national surveillance program/initiative updates, as well as priority animal health and surveillance topics that arose from discussion with the CAHSS community.

Examples included but are not limited to:

- Bi-annual influenza in swine reports created in collaboration with the **Canadian Swine Health Intelligence Network** (CSHIN),
- Quarterly **equine disease snapshot reports**,
- **Preparedness of Canada for the Longhorned tick** (previously termed Asian Longhorned tick) report,
- **One Health inventory tool** made in collaboration with the Community for Emerging and Zoonotic Diseases (CEZD),
- **Minimum dataset for animal health surveillance** and reporting, and more.



CAHSS AT  
WORK



# ACHIEVEMENTS UNDER CAP (2019-2023)

## WORK AREA 2: DEVELOP A FORMALIZED GOVERNANCE STRUCTURE FOR THE CAHSS DIVISION

The CAHSS division formalized a governance charter which included CAHSS' vision, mission statement, and the central roles of CAHSS as a distinct division within AHC. It described CAHSS' network of networks structure, CAHSS principles, CAHSS governance model ("lead agency" model), and key responsibilities of CAHSS network members, network chairs, and steering group committee members. CAHSS successfully developed an implementation plan to define how the division integrated and collaborated effectively with regional, sectoral, national, and professional One Health networks engaged in surveillance. The CAHSS Governance charter defined these relationships, while the **CAHSS Strategic Plan** provided a road map to guide division activities from 2020 to 2025. The aim of the CAHSS Strategic Plan is to ensure that it also aligns with the Animal Health Canada Strategic Plan.



CAHSS AT  
WORK



# ACHIEVEMENTS UNDER CAP (2019-2023)

## WORK AREA 3: SUSTAINABILITY PLANNING FOR THE CAHSS DIVISION

The CAHSS Sustainability plan was created with input from CAHSS surveillance network chairs/co-chairs and steering group members and finalized following a series of online and in-person meetings in 2022. In addition, CAHSS developed a value proposition document that articulated the unique benefits and value that CAHSS provides their diverse stakeholders whom CAHSS serves and supports, including federal/ provincial/ territorial government, national/provincial industry associations, research, academia, provincial/private diagnostic laboratories, veterinary/agricultural associations, and more.



CAHSS AT  
WORK



# MOVING FORWARD:

## CAHSS UNDER S-CAP (2023-2028)

CAHSS applied and successfully received five-year funding as of May 2023 from Agriculture and Agri-Food Canada (AAFC) for the Sustainable Canadian Agricultural Partnership (S-CAP) program, with project title **“Building Resilient Animal Health Surveillance Through a One Health Lens”**. Alongside the S-CAP application there were 32 letters of support in English and French submitted by CAHSS surveillance stakeholders to support with the application.

The new project will build upon existing relationships and strong partnerships previously established within national, regional, and multi-sectoral surveillance networks through the CAP project. It will expand its surveillance network of networks, with information and intelligence sharing amongst Canadian stakeholders to address critical animal and One Health related challenges. Increased surveillance capacities of the project will support emergency management of large-scale animal health scenarios in Canada, while working alongside AHC's emergency management (EM) division.

**From 2023 to 2028**, CAHSS is committed on supporting the activities under the following categories:

1. Data integration and synthesis in a One Health context
2. Enhancing and building core competencies within CAHSS networks
3. Strengthening surveillance for animal health emergency scenarios

### **Data integration and synthesis in a One Health context**

- To leverage and promote data sharing from multiple sources within CAHSS surveillance networks (FPT government, industry, provincial diagnostic laboratories, academia, regional/national surveillance partners).
- To continue to focus on the ability to access and collate diverse data sources to improve detection, monitoring, prevention, and control of endemic as well as emerging animal and zoonotic disease threats at the human-animal-environment interface at regional and national levels.
- To explore how the national CAHSS Data Platform project could be further developed, where existing raw data (e.g., abattoir condemnation data and laboratory diagnostic data) could be further analyzed, interrogated, and incorporated into a reporting process that addresses national surveillance network priorities.

### **Enhancing and building core competencies within CAHSS networks**

- To hone existing or desired capabilities into organization-wide strengths.
- To collaborate across CAHSS' network of networks to obtain the highest possible competencies in collaboration.
- To support the transfer of core competencies from more experienced network components to those emerging or with evolving scopes and foster greater innovation and more sustainable solutions for animal health surveillance in the Canadian context.
- The core competencies considered of highest priority to CAHSS are grouped into three pillars: delivery-related (e.g. achieving results), interprofessional (e.g. building trust and partnerships within CAHSS networks), and strategic (e.g. planning for the future of Canadian animal health surveillance).



# MOVING FORWARD: CAHSS UNDER S-CAP (2023-2028)

## **Strengthening surveillance for animal health emergency scenarios**

- To provide support to AHC's emergency management (EM) division to improve the readiness of Canada to react and respond to animal health related emergencies. It will do so by leveraging the early detection, warning systems, and rapid, transparent information sharing that occurs across its networks.
- CAHSS will refine existing tools and create new resources to assist with early warning systems and data sharing that are conducive to surveillance requirements during large-scale animal health emergencies.

The three categories of the new project allow CAHSS to be uniquely positioned to advance all five S-CAP priorities and focus areas to advance sustainable agriculture, animals, and agri-food, including: building sector capacity, growth and competitiveness, climate change and environment, science, research and innovation, market development and trade, as well as resiliency and public trust.



*Funding for CAHSS activities has been provided through the AgriAssurance Program under the Sustainable Canadian Agricultural Partnership, a federal-provincial-territorial initiative.*

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CAHSS AT  
WORK