

Special Report **Rapport spécial**

The Pan-Canadian Approach to Wildlife Health

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Wildlife diseases and their effects are expected to increase with climate change, urbanization, and increased natural resource development (1). Growing demands for cumulative effects management are creating new expectations to measure, monitor, and maintain wildlife population health (2). A new approach is needed to: i) harmonize capacity across Canada; ii) more efficiently use shared platforms, infrastructure, and expertise; and iii) bolster the ability to quickly detect emerging threats while promoting new partnerships to anticipate problems and sustain healthy populations in advance of harm. The current approach to wildlife health problems is often reactive and follows a “disease-by-disease” sequence. As a consequence, problems are rarely addressed in their early stages and response options may be few. There is a need for greater focus on early warning, prevention, and preparedness, which will depend on improved knowledge of risks, better surveillance for early warning, improved coordination, and integrated response capability. In the Spring of 2018, all federal, provincial, and territorial Ministers responsible for biodiversity and conservation approved a new Pan-Canadian Approach to Wildlife Health. The Approach presents a vision for wildlife health to protect the socioeconomic, cultural, and ecological value of healthy wildlife. The Canadian Wildlife Health Cooperative has championed this modernization of wildlife health over the past 4 years, working closely with government and non-governmental partners to advocate for an approach to effectively respond to up-and-coming threats to conservation, public health, and economies from climate change, emerging diseases, globalization and changes to organizational capacities.

The Approach addresses 4 challenges. First, is the challenge of crossing boundaries. Unlike public health and domestic animal health, which are the mandates of specific government agencies with direct budget allocations, wildlife health falls across multiple agencies at several levels of government. Problems at human-animal-environmental interfaces require an all-of-government approach, but the gulf between departmental and jurisdictional mandates seems exceptionally wide for wildlife health. While federal, provincial, and territorial governments implement a

wide variety of wildlife health programs within their mandates, many wildlife health issues fall across multiple departments and levels of government. The success of past collaborations (e.g., avian influenza, white nose syndrome of bats) is driving demand for more regular and systematic mechanisms to share capacity and information across programs and personnel. For this reason, partnerships and coordinated networks of expertise are essential for achieving the goals of the Pan-Canadian Approach. The Approach outlines an innovative public management model with the flexibility to deliver and integrate roles across Ministries, governments, and private sectors.

The second challenge arises from our rapidly changing social and environmental conditions. With changing landscapes and climates, and global transport of humans and goods, new avenues are being created for the movement of pathogens and pollutants into and within the Canadian environment. These changes are creating new risks for conservation, public health, and economic activities. Wildlife health continues to be a “canary in the coal mine” that helps us to identify environmental threats in advance of human illness, ecological effects, or economic impacts. Demands for wildlife health services and expertise are growing beyond current capacity because of the needs for assurances for trading partners, the expectation to manage for uncertainty, and the increase in emerging diseases threatening public health, conservation, and agriculture.

Thirdly, we are challenged in providing assurances throughout the second biggest country in the world that human activities are not negatively affecting wildlife health, or that wildlife health is not a risk. Efforts and investment vary throughout the country and few formal mechanisms exist to share and make best use of wildlife health observations. Canada must be able to make credible and verifiable wildlife health claims to meet its international and national obligations. The World Organisation for Animal Health (OIE) and World Health Organization (WHO), for example, both require that Canada maintain capabilities that can immediately detect and respond to unusual or unforeseen events that may become a significant human or animal health threat. The Convention on Biological Diversity and the Rio Declaration on Environment and Development similarly require that signatories be able to identify and monitor circumstances likely to adversely impact conservation and sustainable use of biological diversity. Canada’s Constitution affirms the rights of First Nations, Métis, and Inuit peoples to hunt, fish, and consume wild foods. The implementation of the Pan-Canadian Approach to Wildlife Health contributes to the fiduciary obligations owed to First Nations, Métis, and Inuit peoples and provides a strong response to our international obligations.

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The fourth challenge is our increasing reliance on *ad hoc* programs without sustainable or predictable resource. This situation is creating a deficit that is diminishing services and capabilities which, in turn, threatens the ability to anticipate emerging needs, provide nationally representative situational awareness, allow for prevention and preparedness, harmonize an equitable program across Canada, and plan beyond an annual cycle.

The 4 strategic goals of the Approach are to: i) strengthen Canada's capacity to identify and reduce wild animal health threats and determinants that put conservation, public health, and cultural or economic opportunities at risk; ii) develop, implement, and assess programs and policies intended to sustain healthy wild animals and the positive contributions they make to Canada by reducing disparities and differences in capacity and information across the country; iii) encourage strategies that improve anticipation of wildlife health policy and practice needs in the face of rapidly changing social and environmental conditions; and iv) improve efficiency and effectiveness of public services by working together towards the goal of sustainable wildlife health.

The approach focusses on 4 pillars of activity to achieve its goals. The first is health intelligence; the process of generating, collecting, and analyzing a variety of information to foster collaboration and consultation through innovation in surveillance, information exchange, research, and response. Health intelligence activities will link information to document the wildlife health situation in Canada, including signals of emerging risks and changes in vulnerability. This will be achieved, in part, by working towards equitable access to diagnostic and investigative capacity to track wildlife health trends and assess their significance and by developing coordinated analytical capacity to interpret and communicate health intelligence outputs.

The second pillar develops and supports coordinated and responsible management of expertise and capacity across Canada, providing independent advice, and helping achieve policy goals through wildlife health stewardship. A national secretariat will be responsible for planning and managing capacities and functions needed to provide a national perspective on wildlife health, regularly assemble a pan-Canadian perspective of the state of wildlife health and ensure timely sharing of policy-relevant knowledge arising from the network.

Innovation is the third pillar of the Approach. Wildlife health innovation involves research and knowledge transfer that lead to new public policy and practices to forecast ways to prevent adverse wildlife health outcomes and sustain confidence and access to the services wildlife provide Canadians. The fourth pillar promotes openness, transparency, and integrity through integrated governance to facilitate effective collaboration and promotes performance orientation in program delivery. A recently created forum for leadership, strategy, policy development and inter-jurisdictional cooperation will help translate wildlife health policy goals and social expectations into positive health outcomes.

The Pan-Canadian Approach to Wildlife Health will ensure fair and secure marketplace access and public use of natural resources, collectively worth billions of dollars to the Canadian economy. The resulting wildlife health intelligence network will strive to: i) be nationally representative; ii) identify needs for adaptive management of endemic problems; iii) provide early warning of emerging threats; iv) detect infectious, non-infectious, or environmental threats; and v) support a sentinel system to monitor environmental safety. The improved situational awareness will help identify, triage, and prioritize threats across Canada to support risk prioritization and evidence-based risk management across public health, conservation, agriculture, natural resource management, and other economic and social sectors. The Approach ensures no single agency bears the full burden of a national program and that investment of any one agency is leveraged by the capacity, infrastructure, and expertise secured through the total investment of all partners. A health protection focus supports more cost-effective and proactive responses against threats compared to investing only in reactions to problems after they emerge.

Canada's approach to wildlife health is internationally well-respected, serving as a model for many other countries. The essential structures and arrangements necessary to implement the Pan-Canadian Approach to Wildlife Health are in place; however, they require coordination, resources, and dedicated leadership. Environmental and Climate Change Canada is leading the government's charge to implement the Approach. It is supported by the advice and cooperation of a committee of federal, provincial, territorial, First Nations, Inuit, and academic and non-governmental partners. This committee will help identify 5-year priorities for action and create the business case to secure the funds needed to see that the goals of the Approach are fully realized. The Pan-Canadian Approach builds on the foundations created by the Canadian Wildlife Health Cooperative by sustaining and supplementing core stewardships and health intelligence capacities and creates new opportunities to expand the network of skills and expertise to meet modern demands for a national wildlife health program. Interacting with knowledge users, knowledge producers, partners in Canada and abroad will allow for more effective mobilization of information to decision-makers. By networking wildlife health expertise and knowledge found in existing provincial, territorial, federal, and academic partners, a more resilient, better informed, and better prepared network will be created.

References

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