# Surveillance or research: what's in a name?

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The last Sentinel Eye[1] introduced the Canadian Primary Care Sentinel Surveillance Network (CPCSSN), a pan-Canadian initiative that extracts and maintains electronic medical record data on chronic diseases. But do CPCSSN's activities fall under the umbrella of public health (PH) surveillance or primary care (PC) research? In reality, they fall under both categories.

Both PC research and PH surveillance involve collection and analysis of individual health information to improve the health of individuals, communities, and populations. Primary care research is important for building a specific knowledge base on diagnosis, investigation, treatment, and follow-up of medical problems in PC, thus strengthening PH surveillance efforts. Public health surveillance is important for developing hypotheses and stimulating PC research. Both build an evidence base for programs and policies related to disease prevention and control, and for understanding the value of health interventions in PC.

There are also some important distinctions. Different legislation can apply to PC research and PH surveillance, and in some cases there is a specific government authority for the activity. Further, these differences have implications for privacy regulations, scope of responsibility, funding, and methods for data collection and analysis.[2] Even for experienced PH practitioners it can be difficult to distinguish between surveillance and research. However, clues are found in the methods used, the goal of the activity, and the ultimate users of the health data and information.

Surveillance is a core PH function in Canada. It is driven by a governmental duty to protect and promote the public's health. This responsibility is distributed among local, provincial, and federal PH authorities. The goal of surveillance is not to collect data for its intrinsic value, but to guide PH policy and action. In fact, surveillance has been defined quite succinctly as "information for action." Critical to PH surveillance is the ongoing nature of the data collection, allowing an understanding of the pattern of disease occurrence and the potential for disease in a population over time. However, no PH surveillance system is complete without being directly and intimately linked to PH action. This can include informing disease control measures, policy and planning, or resource allocation activities.

Surveillance is supported by principles of PH ethics that focus on the health and well-being of populations, while respecting the dignity and rights of individuals. Research, on the other hand, is usually supported by principles of medical ethics that focus on the interests of patients, balanced with the communal value. Generally, research is conducted under the supervision of a research ethics board tasked with ensuring this balance between benefit and cost.

Surveillance and research employ similar methods. Generally, research tests hypotheses while surveillance generates hypotheses. Research can involve non-standard or experimental methods, while surveillance usually involves standard, broadly accepted methods. Surveillance information is disseminated through published reports; research findings are often published in specialist peer-reviewed journals. Neither source is readily accessible to practising FPs. CPCSSN is innovative in that it provides regular feedback to clinician sentinels and informs the PC community by regularly publishing important information through several different methods, such as this series.

Given the overlapping agendas of PC research and PH surveillance, it can be difficult to draw definitive boundaries around these concepts in practice. Projects often do not fit neatly into either category. For example, CPCSSN has both surveillance and research components.

To characterize an activity as research or surveillance, one must consider its intent, motivation, and objectives. What is the main question being addressed? What prompted the activity? On what (or whose) authority is it being conducted? Who will benefit? Is a standard process being used, or is experimentation involved? Who will ultimately use the information? Answering these questions is important to identify which lens (research or surveillance) the data collection and analysis is being viewed through.

Research and surveillance strengthen and inform each other. Both are important for improving the health of individuals, communities, and populations, and CPCSSN is uniquely positioned to facilitate both activities. It can provide unique and timely surveillance data and can be harnessed for important PC research hypotheses.

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**Competing interests**
None declared

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Sentinel Eye is coordinated by CPCSSN, in partnership with the College of Family Physicians of Canada, to highlight surveillance and research initiatives related to chronic disease prevalence and management in Canada. Please send questions or comments to Anika Nagpurkar, Knowledge Translation and Exchange Officer, at an@cfpc.ca.

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