



Environmental health surveillance in Canada now

Current situation at the federal level

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Outline

- Health and environment tracking
- Health surveillance systems
- Environmental monitoring
- Concluding remarks



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Health and Environment tracking at the federal level

- Canadian Health Measures Survey
 - » Nationally representative information on diseases, health conditions and environmental exposures (chemical, physical and biological agents)
- Canadian Community Health Survey
 - » Self reporting of diseases, health conditions and life style characteristics (Annual)
 - » Built environment characteristics information measured in 2011 and ongoing discussions to incorporate these measures in upcoming surveys
 - » Provide reliable estimates at the national, provincial and health region level
- C-EnterNet
 - » Administered by the Public Health Agency of Canada
 - » Investigation of food-borne and waterborne enteric diseases and exposure through sentinel sites



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Health surveillance systems at the federal level

- Collected by provinces and territories and collated centrally by the Canadian Institute of Health Information (CIHI) or Statistics Canada
 - » Canadian Mortality Database
 - » Hospital Morbidity Database
 - » National Ambulatory Care Reporting System (ER visits)
 - » National Birth Registry
 - » Canadian Cancer Registry
 - » Hospital Mental Health Database
- Health surveillance data that can be used at:
 - » Different geographical scales (e.g. national, provincial, health region, etc.)
 - » Across time (trends)
 - » Specific descriptive measures (prevalence, incidence rates adjusted for age and sex)



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Health surveillance systems at the federal level

- Surveillance systems at the Public Health Agency of Canada (PHAC)
 - » Enteric, food and waterborne diseases
 - » Vector borne and zoonotic diseases
 - » Diseases transmitted by respiratory routes
 - » Antimicrobial resistant pathogens
 - » Prion diseases
 - » Paediatric chronic diseases / health conditions
 - Autism surveillance system commencing in 2012-2013
 - » Adult chronic diseases / health conditions
 - Ex: Canadian Cancer Surveillance (PHAC)
 - Specific information by type and ongoing discussion to include stage at diagnosis
 - Cancer incidence data (age-standardized)
 - Provide geographical variation (Provincial, health region)
 - Time trends



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Environmental monitoring

- A variety of data collected by Environment Canada (Examples)
 - » Air quality data (Fixed sites and satellite data)
 - » Climate data
 - » National Pollutant Release Inventory (NPRI)
 - » Water Quality Monitoring Networks
 - » Canadian Radiological Monitoring Network
 - » Northern Contaminants Program
- Surveys at Statistics Canada
 - » Census of population (some surrogate measures of built environments)
 - » Household and Environment Survey (Representation of Census Metropolitan Areas)
- Survey at Health Canada
 - » Total Diet Study



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Concluding remarks

- Many health surveillance systems and environmental monitoring systems currently exist in Canada
- Gaps and challenges
 - » Mostly separated systems developed by different organizations
 - » Lack of data integration and linkages (i.e. linking health and environmental data)
 - » Lack of common standards on how data are collected (i.e. frequency of data collection, characteristics collected and data formats)



Thank you for your attention

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