

Poison Control Centres



National Collaborating Centre
for Environmental Health

Centre de collaboration nationale
en santé environnementale



BC Centre for Disease Control

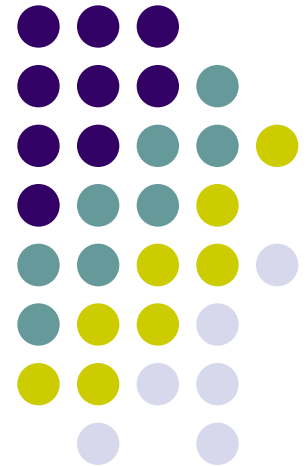
An agency of the Provincial Health Services Authority

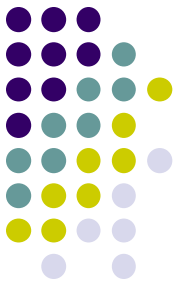
Monica Durigon
Field Epidemiologist
Public Health Agency of Canada

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Public Health Officer
Public Health Agency of Canada

Placement site: BC Centre for Disease Control
Environmental Health Services

Environmental Health Surveillance Workshop
Ottawa, Ontario
Feb 26, 2013





Poison Control Centres

Receive calls from the general public and health care professionals

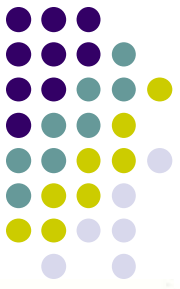
Manage and respond to poisoning-related inquiries and exposures

Offer interactive service enabling rapid contact, assessment and early intervention

Staffed by health care professionals specially trained in the area of toxicology

- pharmacists
- nurses
- physicians





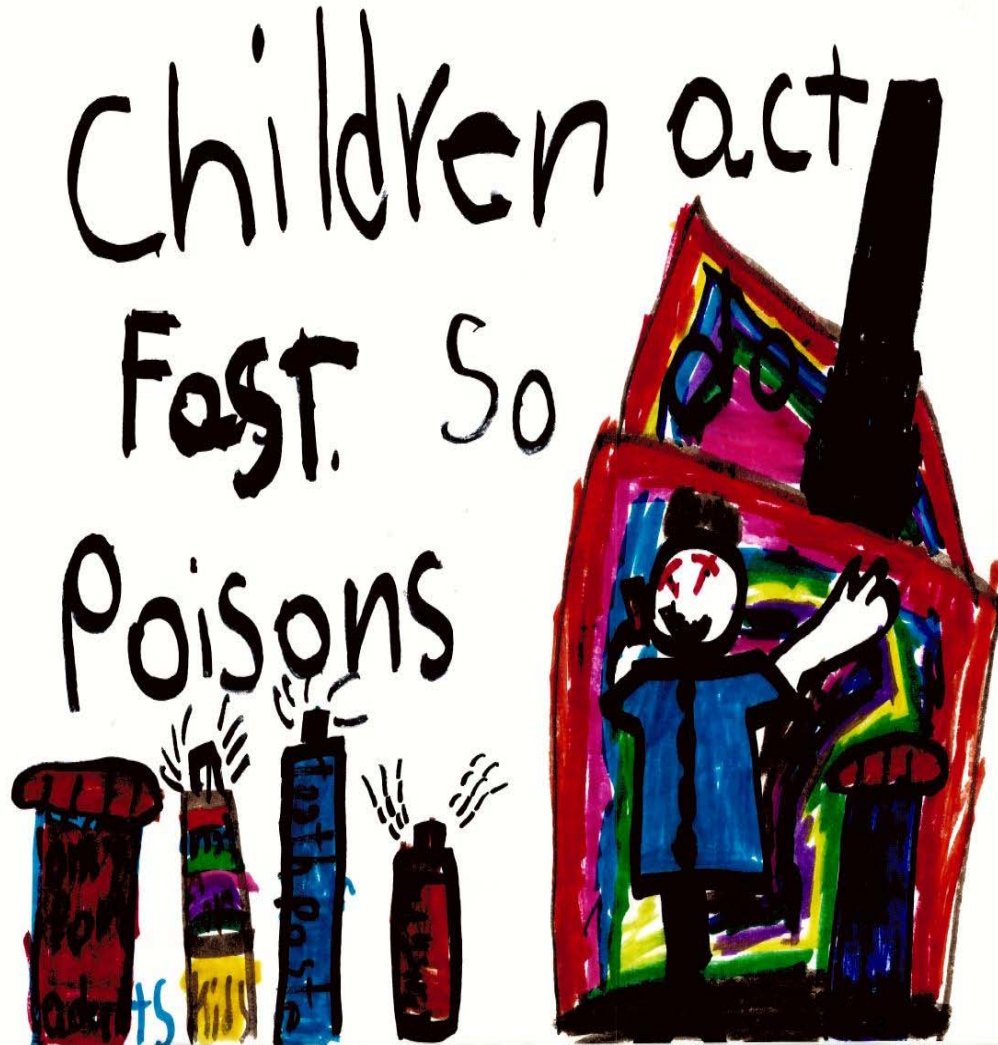
Established use

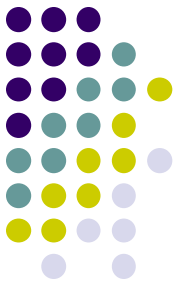
Offer:

- direct patient care
- provision of information
- public and health care provider education

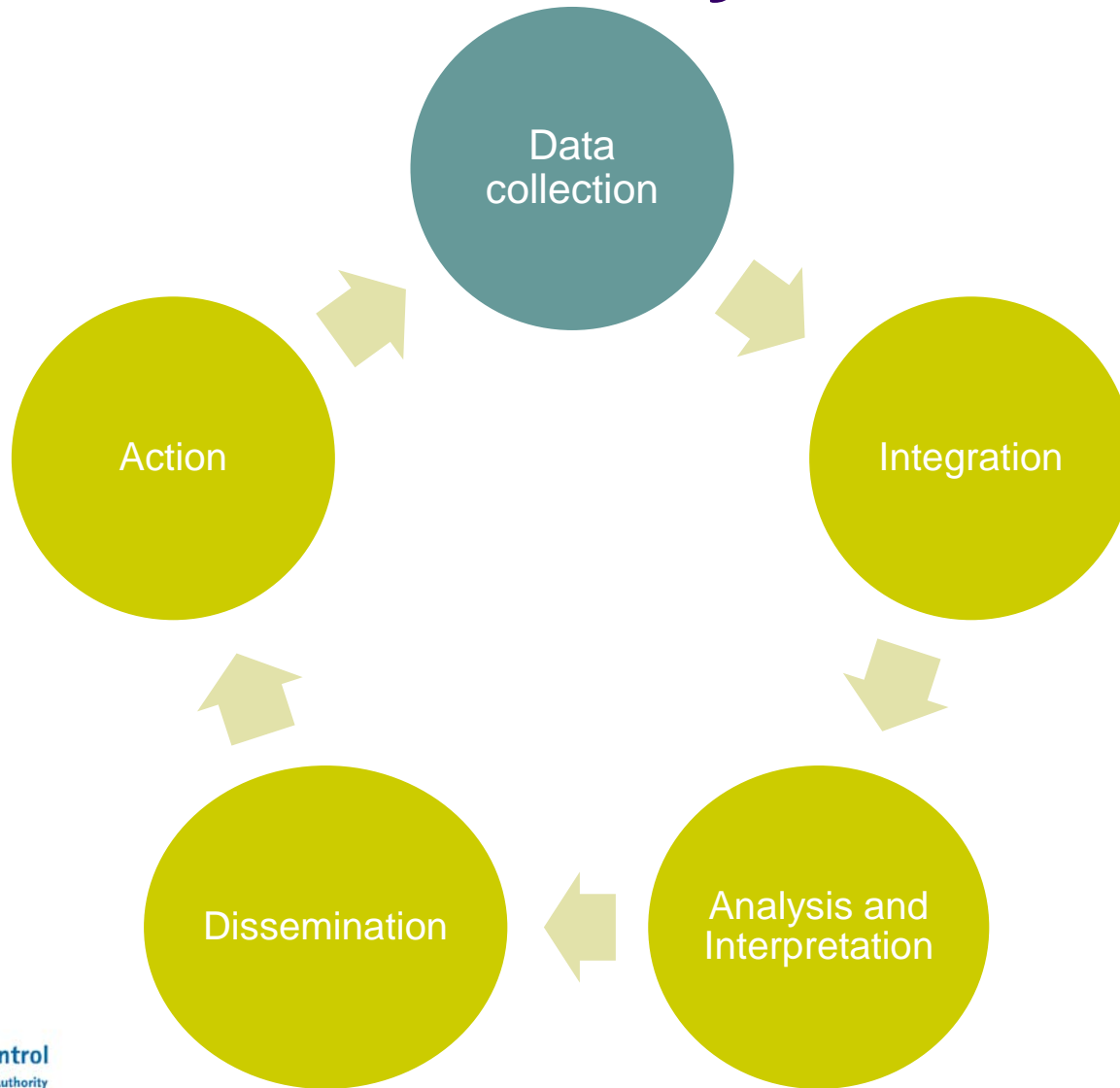
Receive:

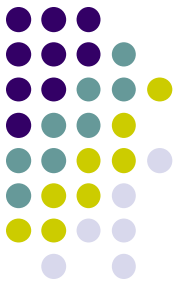
- reports of suspected or known exposures





Classic surveillance cycle





Data collection

Basic demographic information

Geographic information

- caller site
- exposure site

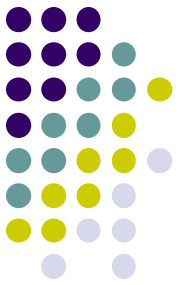
Substances

- pharmaceutical and non-pharmaceutical

Exposure calls

- reason: intentional/unintentional/adverse/unknown
- routes: dermal/inhalation/ocular/ingestion/parenteral/bite/sting
- management site: health-care facility/on site





Data collection

Treatment

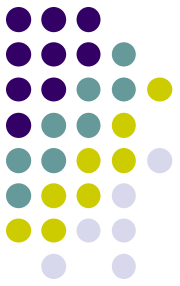
Outcomes

- no effect/minor effect/moderate effect/major effect/death/no follow-up

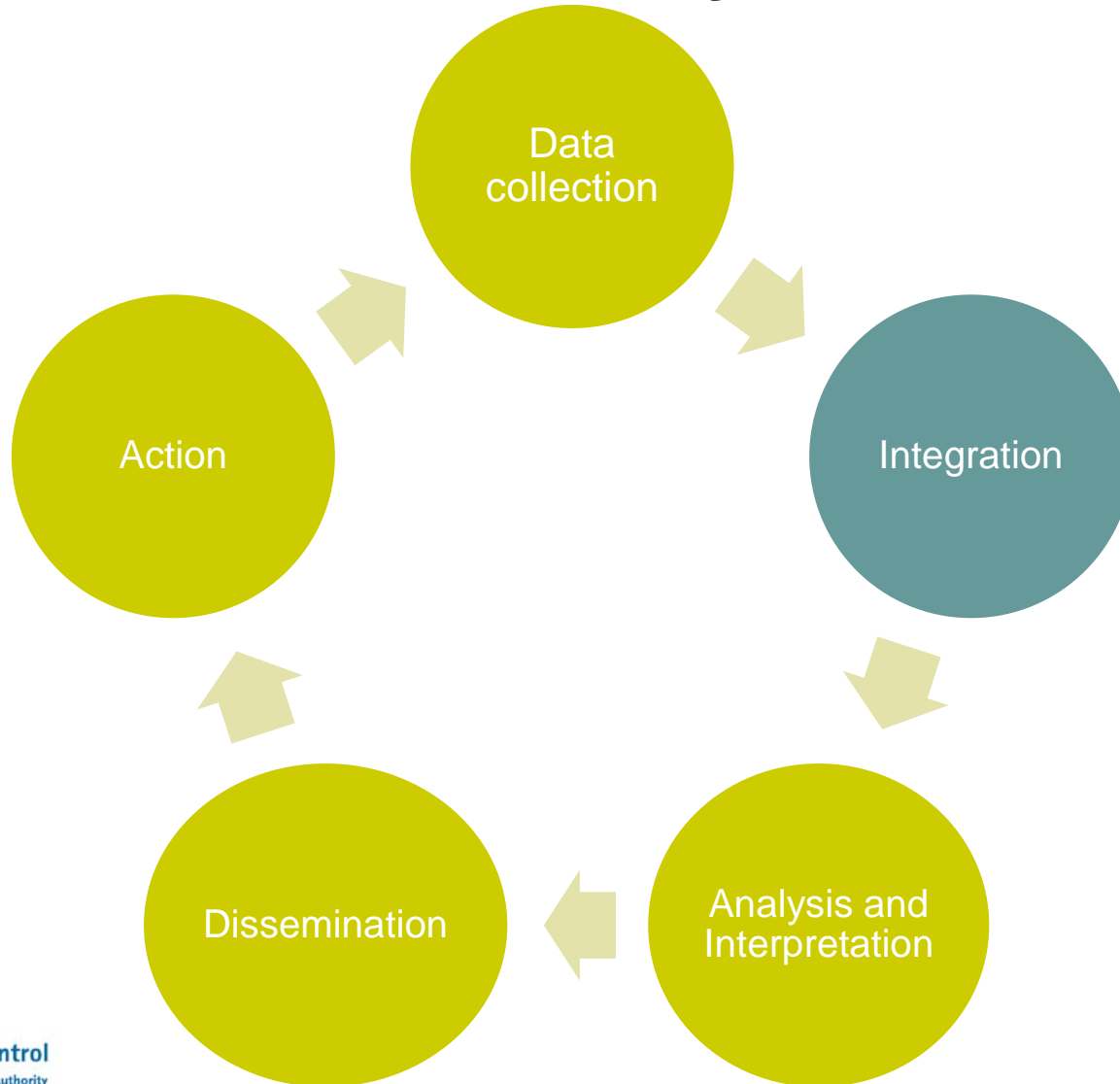
Information-only calls

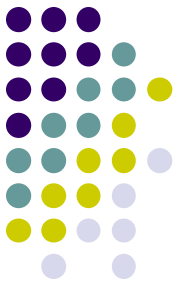






Classic surveillance cycle





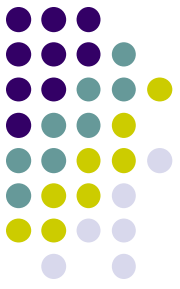
Integration – United States

National Poison Data System (NPDS)

- developed by the American Association of Poison Control Centres (AAPCC)
- data repository for all US poison control centres
- 2009: 61 participating centres
- services the entire US population
- anomalies or deviations from established baseline data generate an automated e-mail alert

Centres can also carry out their own activities independent of the NPDS





Integration – Europe

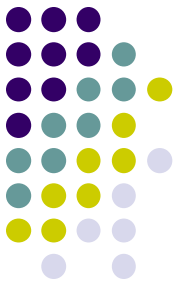
France:

- 10 poison control centres and 3 toxicovigilance centres
- toxicovigilance network coordinated by the French Institute for Public Health Surveillance
- some poisonings (carbon monoxide and lead) are registered and followed-up at a national level

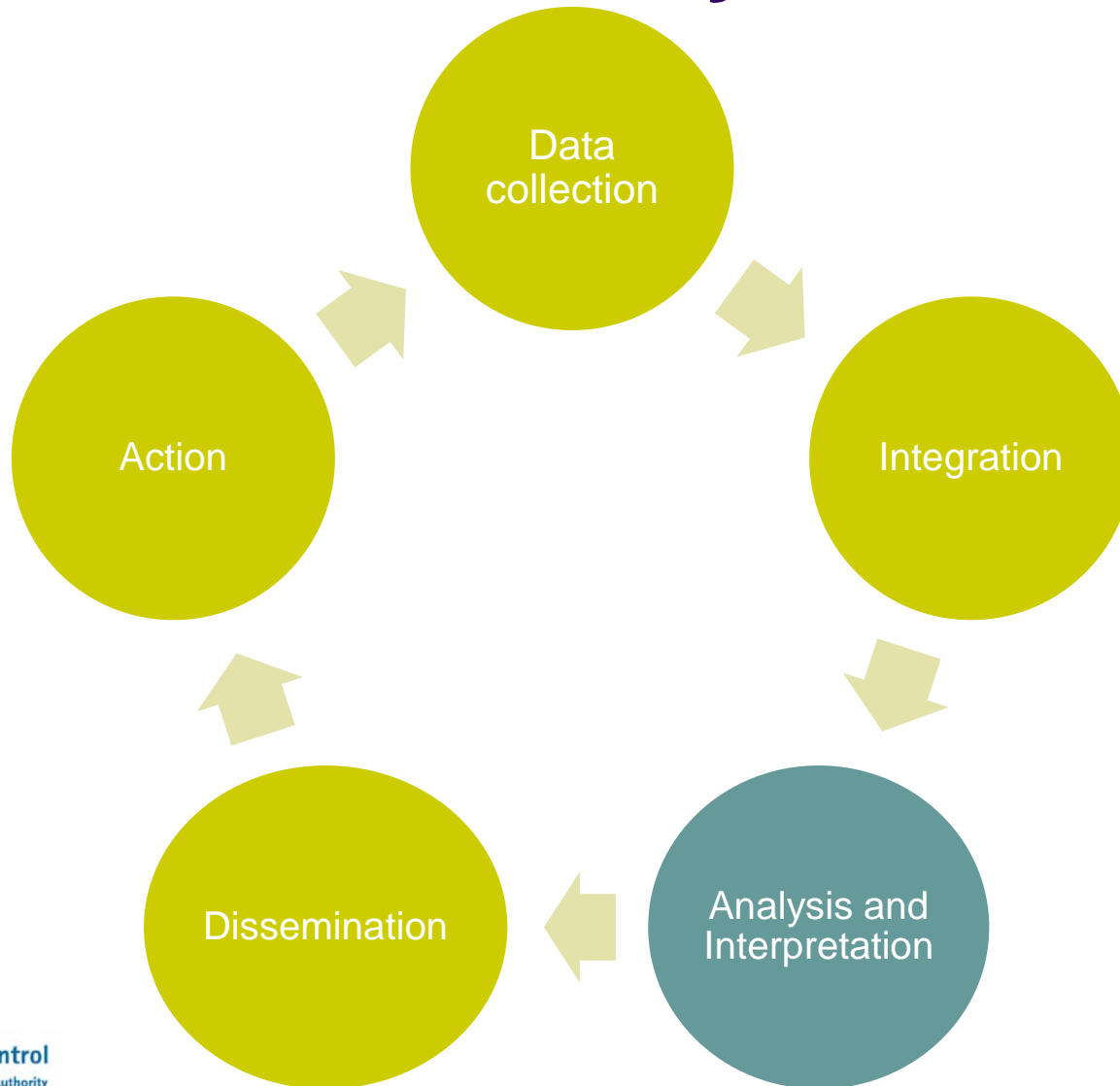
Germany:

- 9 poison control centres
- strong legislation and links to industry
- poisonings are reported to a surveillance unit at the Federal Institute for Risk Assessment (Berlin)

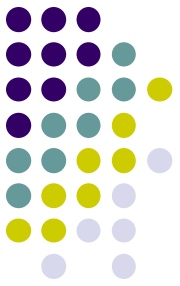




Classic surveillance cycle



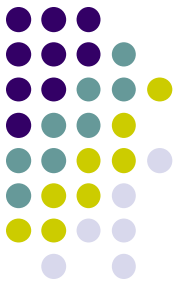
Analysis and interpretation



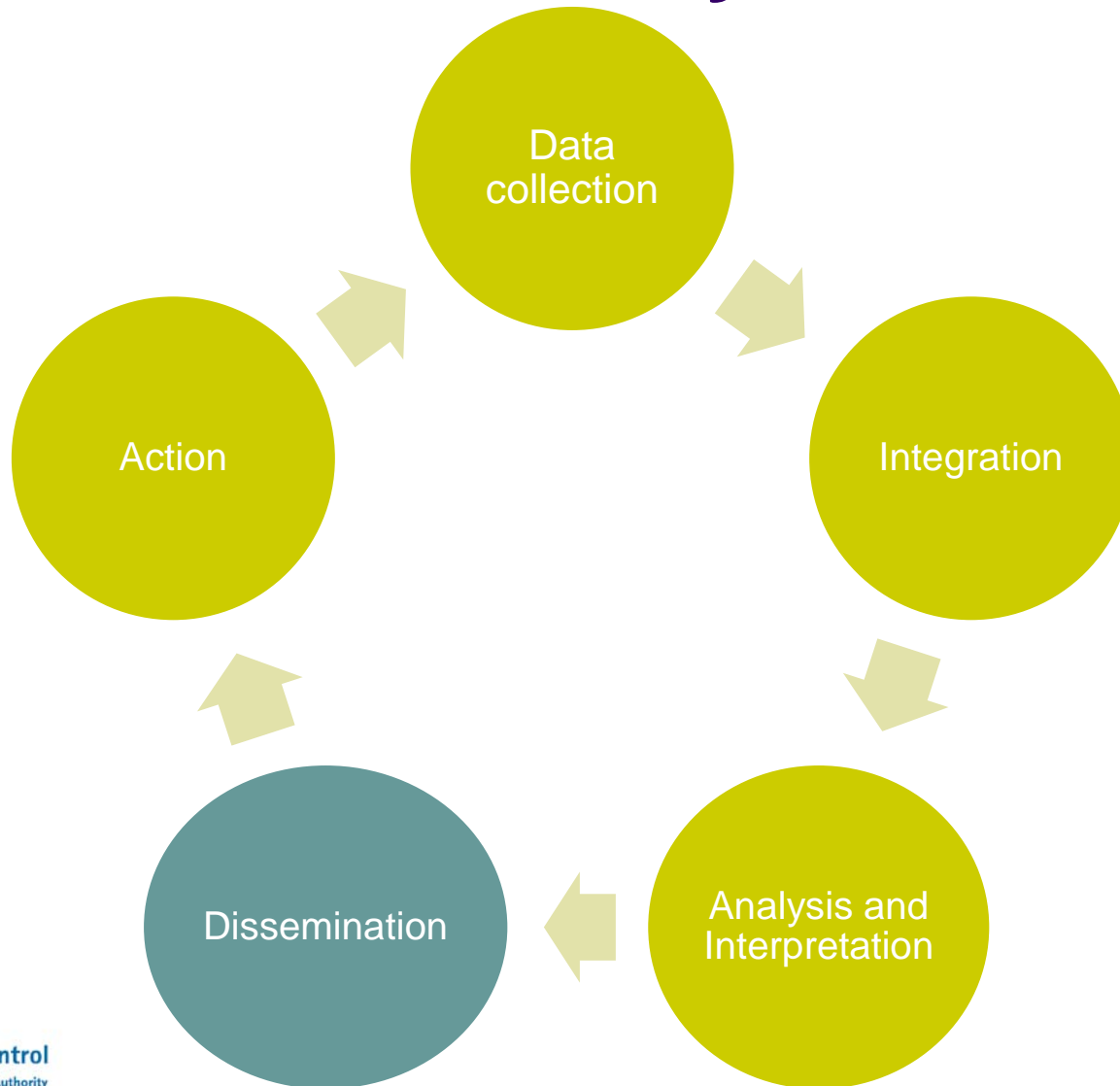
Detect and monitor the emergence of trends and/or novel real-time incidents in:

- drug and substance abuse
- food-borne illness
- mass poisoning
- food/medication contamination
- adverse drug reactions
- injuries from commercial and consumer products
- paediatric poisoning

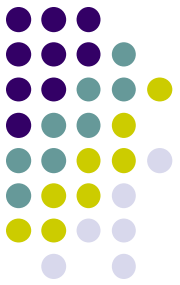




Classic surveillance cycle



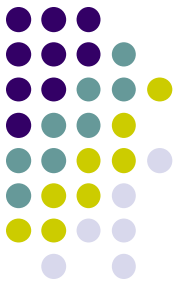
Dissemination



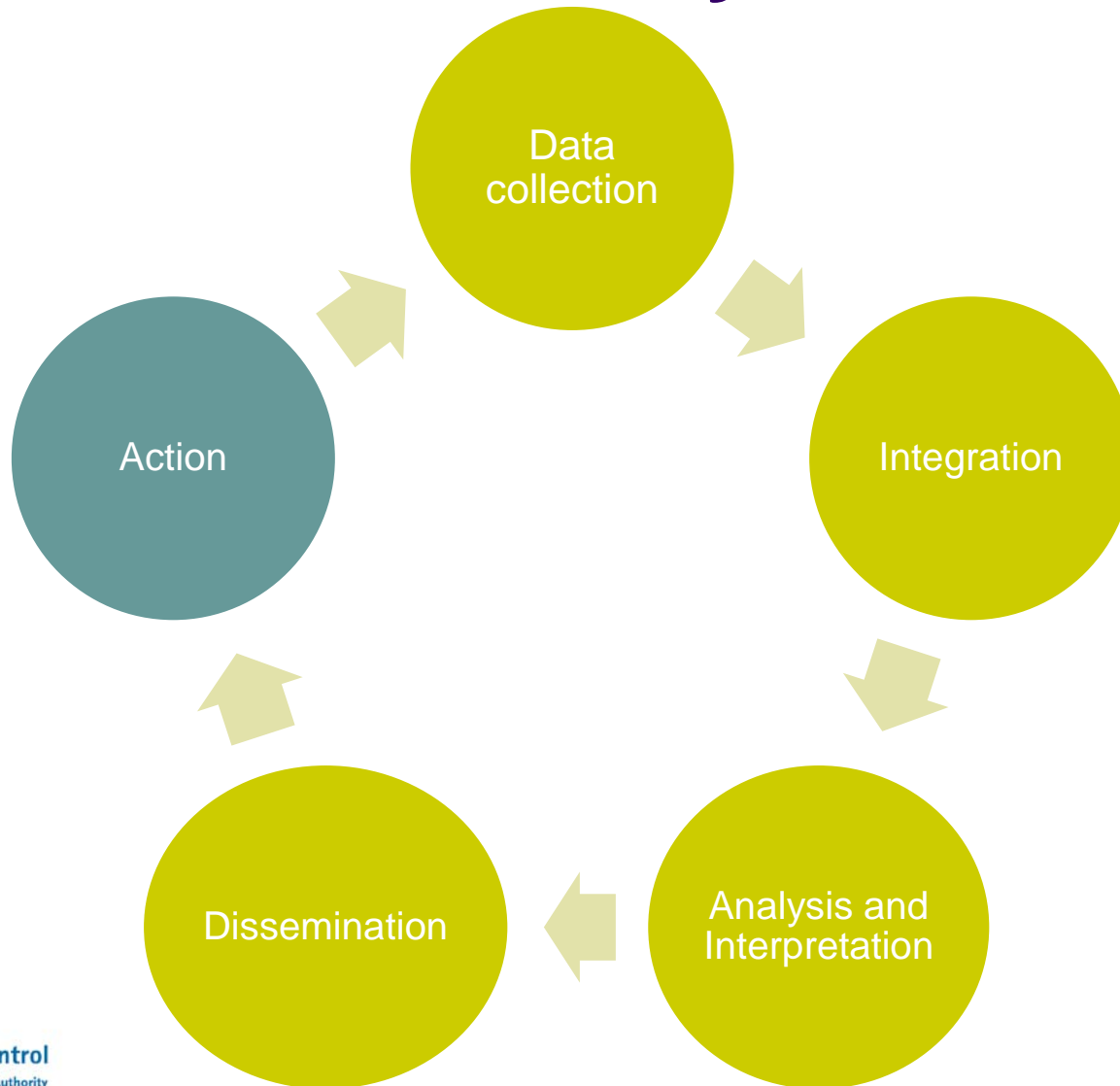
Provide key information to:

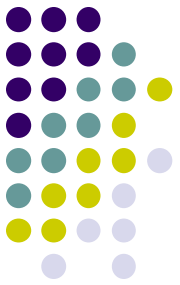
- regulatory agencies
- consumer product and safety commissions
- drug and law enforcement agencies
- food and drug administration or their counterparts
- chemical and industry partners
- public health





Classic surveillance cycle





Information for action

Implement prevention and control measures

Identify areas for research

Recall consumer products

Influence policy and program planning



Poison Control Centres – Canada, 2013

Name Location	Provinces Served	Services Offered	Approximate annual call volume	Primary data collection tool
Drug and Poison Information Centre (DPIC) Vancouver, BC Est. 1975	British Columbia & Yukon	Poison: 24/7 Drug: 9-16 Mon-Fri	36,000 All services	Electronic (since October 2011)
Poison and Drug Information Service (PADIS) Calgary, AB Est. 1986	Alberta, Saskatchewan & Northwest Territories	Poison: 24/7 Drug: 8-16:15 Mon-Fri Herbal and Medication Line: 24/7	40,000 All services	Paper -based
Ontario Poison Centre Toronto, ON Est. 1979	Ontario & Manitoba*	Poison: 24/7	58,000	Electronic (since 1997)
Centre Antipoison du Quebec Quebec City, QC Est. 1986	Quebec	Poison: 24/7	45,000	Paper-based
IWK Regional Poison Centre Halifax, NS Est. 1993	Nova Scotia & Prince Edward Island	Poison: 24/7	10,000	Electronic (since 2006)

*as of July 1, 2012

New Brunswick = 24 hr nurse hotline

Newfoundland and Labrador = associated with Janeway Children's Health and Rehabilitation Centre in St. John's

British Columbia

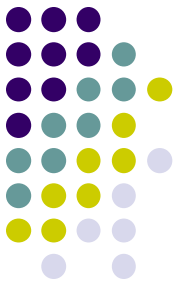
Drug and Poison
Information Centre

24/7

Staffed by
nurses/pharmacists and
supported by medical
toxicologists

Located within BCCDC

Oct 2011 – electronic
client database



Detection of emerging health events – Fukushima

CPJRPC
 CANADIAN PHARMACISTS JOURNAL REVUE DES PHARMACIENS DU CANADA

YOUR PEER-REVIEWED FORUM FOR PATIENT-CENTRED PRACTICE

Calls to a drug and poison information centre after the Fukushima nuclear incident 256

Characteristics of pharmacists who enrolled in the pilot ADAPT program 260

Implementing cardiovascular risk screening programs in community pharmacies 268

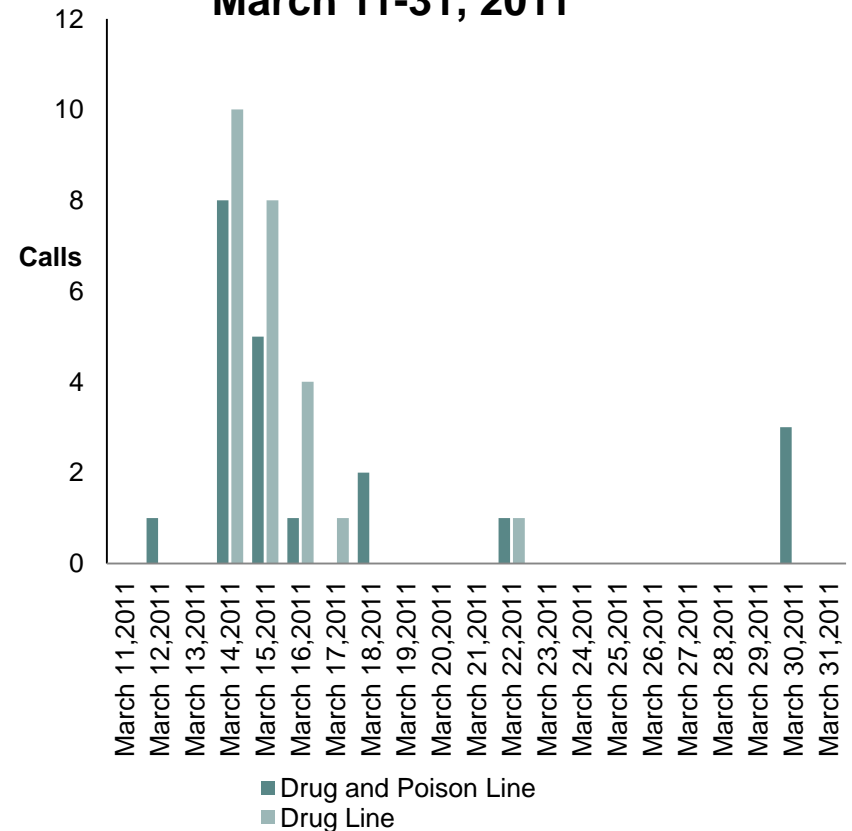
Prescribing gabapentin off label: Various perspectives 280



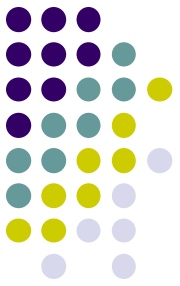
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 WWW.CPJOURNAL.CA

NOVEMBER/DECEMBER 2012
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**Fukushima related calls to both the BC drug line and drug and poison information line
 March 11-31, 2011**



Monitor trends and identify emerging health events: CO



British Columbia

- no current measures to monitor or report CO poisonings

Objective

- evaluate the utility of DPIC electronic client call records for the surveillance of unintentional, non-fire related CO poisonings in BC

Specifically

- Data extraction algorithm enabling accurate detection of CO cases
- System to routinely monitor for CO aberrations



Potential to inform policy – Cosmetic pesticides



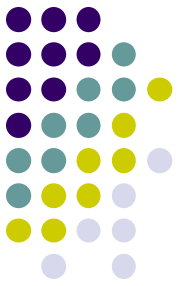
Between 2003 and 2012, 41 municipalities in BC adopted bylaws prohibiting or restricting the use of cosmetic pesticides

- 20 banned
- 21 restricted
- 119 had no bylaws

Can compare historical DPIC data from 2003-2004 with data collected in 2012

- Compare occurrence of exposure calls between municipalities where use is prohibited, restricted, or that have no bylaw
- Compare occurrence of exposure calls before and after adoption of cosmetic pesticide bylaw
- Examine demographic characteristics of individuals exposed





Data limitations

Self reporting

External validity

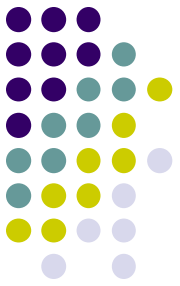
Lack of coordination with public health and its partners

Data linkages not easily done

Data coding practices

In Canada, in particular, some centres use paper records





Future considerations

Joint surveillance network

Highlight the value of the information found in poison control centre databases

Closer links with public health and its partners

Integrate with other data sources

Ensure consistency across centres regarding data coding practices and standards



