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# Success Stories and Lessons Learned in Implementation of Chemicals Management in Canada

Health Canada – PAHO Workshop

Lima, Peru

November 8-10, 2016



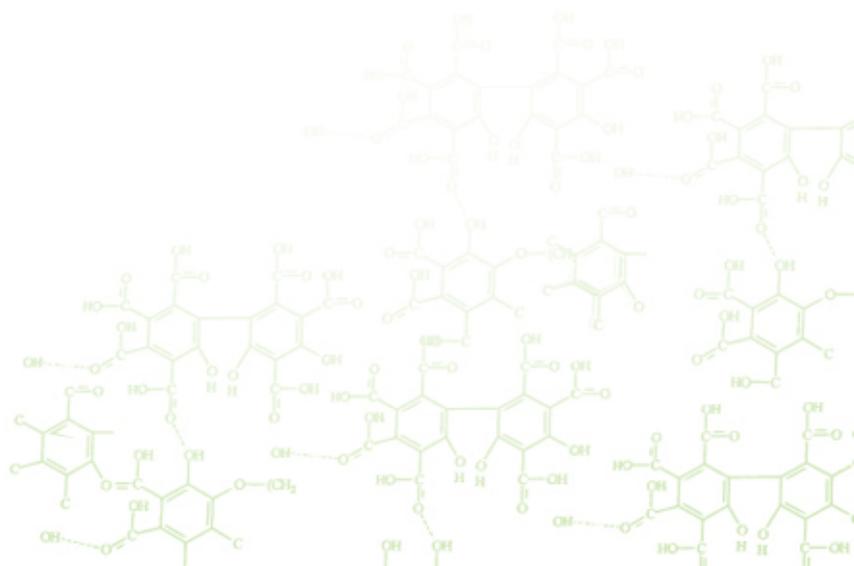
CHEMICALS  
MANAGEMENT  
PLAN

PLAN DE  
GESTION DES  
PRODUITS CHIMIQUES

Canada 

# Outline

- Accomplishments
  - Risk Assessment
  - Risk Management
  - Research
  - Stakeholder Engagement
- Lessons Learned



# Accomplishments

- Risk Assessment

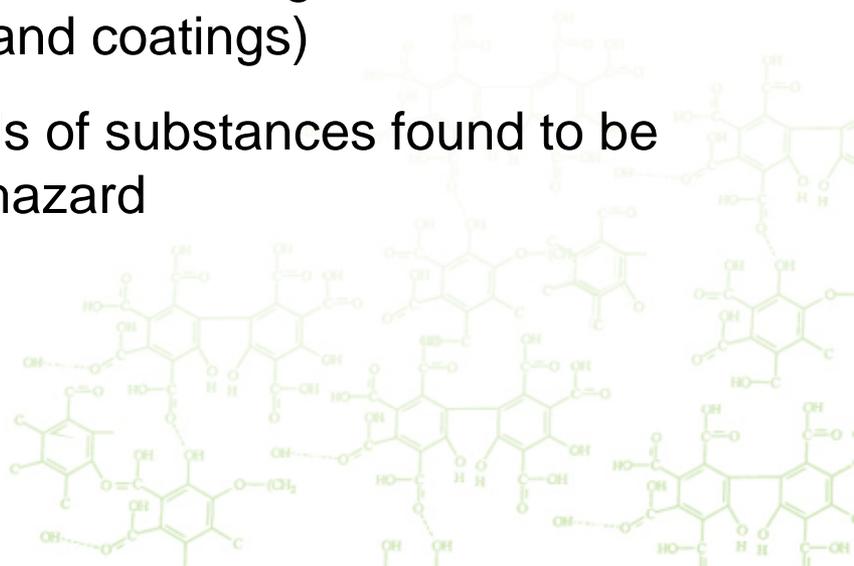
- Recognition that approach to addressing chemicals needs to be comprehensive
  - CEPA 1988 ►►CEPA 1999►►CEPA 20XX
- Canada was first country to systematically prioritize all Existing Substances to lay path for informed path forward (internationally precedent setting)
- Launch of integrated Chemicals Management Plan
- In CMP1, highest priorities assessed and risk management recommended for many.
- Groupings initiative under CMP2: efficiencies gained, novel approaches initiated
- Risk Assessment Toolbox application in CMP3
- New innovative assessment methodologies developed, significantly advanced incorporation of predictive technologies
- Influencing research priorities
- Active participation in international initiatives; Win – Win!
- CMP Advisory Committee/Science Committee provided consultative/science foundation
- Each year, assessment of ~450 new substances entering the Canadian marketplace, including nanomaterials and products of biotechnology



# Accomplishments

- Risk Management

- Action taken on identified priorities
  - Risk management instruments finalized for 40 of 42 substances found to be harmful to human health and/or the environment under the “Challenge” in CMP1
- Over 20 substances added to Health Canada’s Cosmetic Ingredients Hotlist (list of substances that are restricted or prohibited in cosmetics)
- Working with industry on innovative risk management measures (e.g., codes of practice for paints and coatings)
- Actively monitoring uses and levels of substances found to be not S.64 toxic but represent high hazard



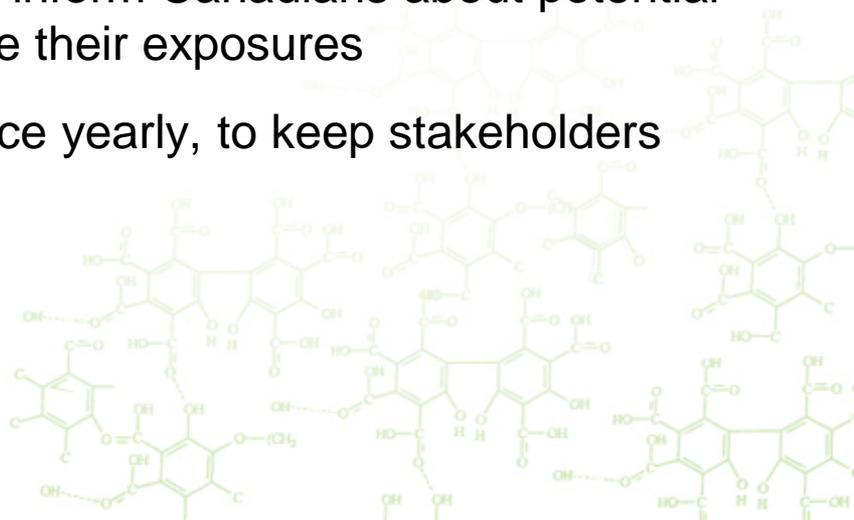
# Accomplishments

- Research, Monitoring and Surveillance
  - Supporting assessment and management decisions
  - Research on key health concerns (e.g., endocrine disruption), complex types of substances (e.g., UVCBs, nanomaterials), substances already assessed (e.g., cumulative impacts)
  - Environmental and human biomonitoring (e.g., completed multiple cycles of Canadian Health Measures Survey, nationally representative data for ages 6-79 on levels of large number of environmental contaminants)



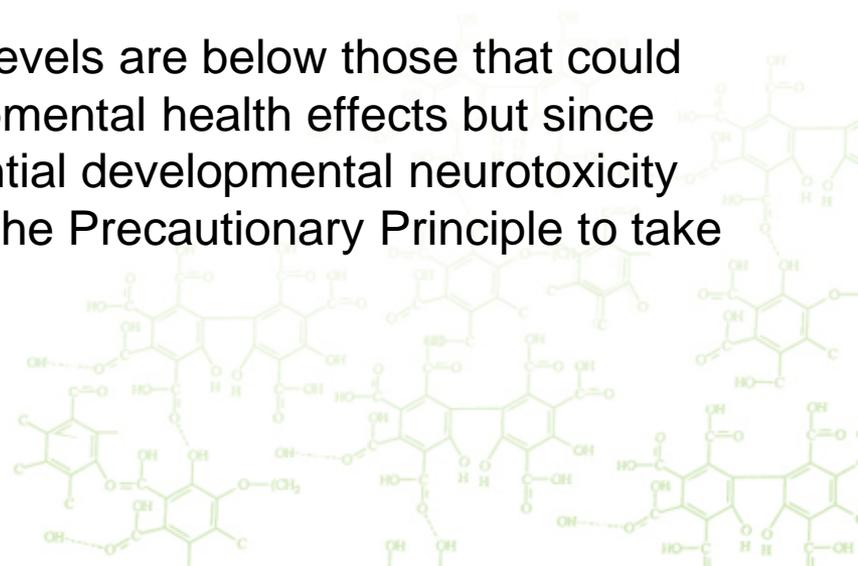
# Accomplishments

- Stakeholder engagement, public outreach and communications
  - Over 1000 subscribers to Chemical Substances web site
  - Ongoing work with multi-sectoral Stakeholder Advisory Council to foster dialogue among stakeholders and inform the program
  - Face to face workshops, teleconferences and webinars with stakeholders held on a wide variety of CMP topics
  - ~ 1 million *Hazardcheck* distributed to inform Canadians about potential risks in their homes and how to reduce their exposures
  - CMP Progress Reports, published twice yearly, to keep stakeholders informed of progress



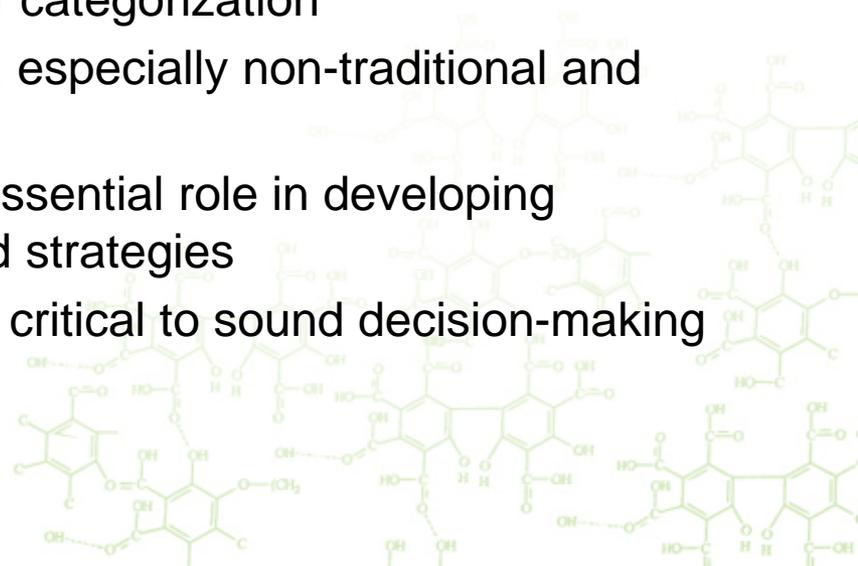
# Case Study: BPA and the Precautionary Principle

- Canada was the first country in the world to take action on bisphenol A (BPA)
  - Health Canada scientists concluded that exposure to BPA poses negligible risk to most Canadians
  - Focus has been on newborns and infants up to 18 months of age because developmental effects reported in animal studies
  - Main source of exposure was through migration of BPA from polycarbonate baby bottles and from can linings into liquid infant formula
  - Scientific data suggests that exposure levels are below those that could cause systemic or reproductive/developmental health effects but since they are close to the levels where potential developmental neurotoxicity effects could occur, Canada exercised the Precautionary Principle to take action to reduce exposures further



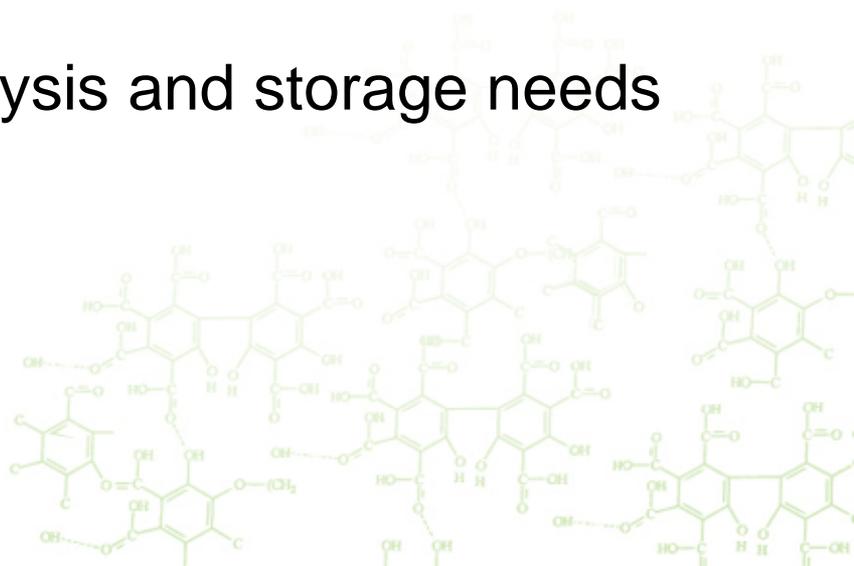
# Lessons Learned

- Need to constantly evolve to adapt to changing circumstances
  - Adjust approaches and decisions based on new evidence
- Evaluation of progress and performance measurement are essential
- Long term program visions may not meet need for short term deliverables; need to identify opportunities for frequent deliverables/reporting out
- Strong stakeholder engagement, starting early on
  - Use of older DSL data problematic for categorization
  - Earlier buy-in to approaches adopted, especially non-traditional and group approaches
  - Stakeholder engagement played an essential role in developing information gathering approaches and strategies
  - Evidence provided by stakeholders is critical to sound decision-making



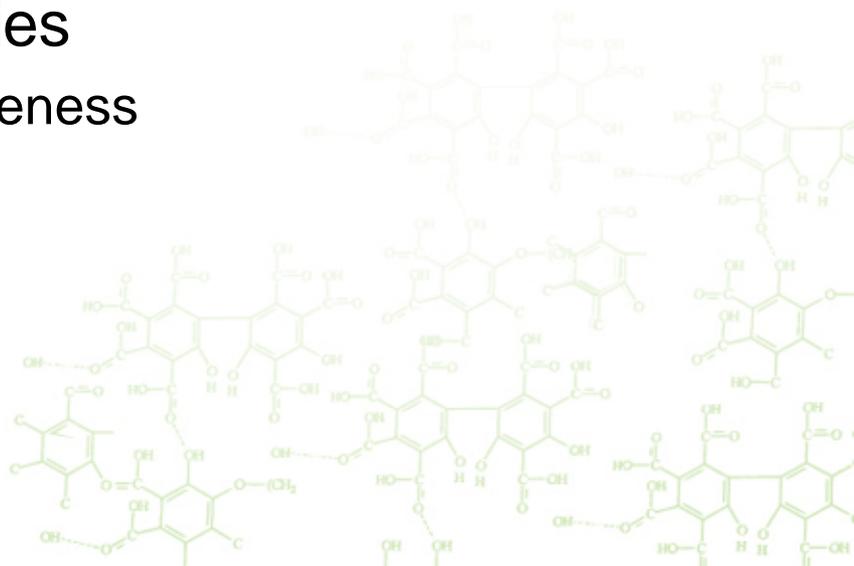
# Lessons Learned

- Streamlining efficiencies in risk assessment
  - Grouping of substances based on similarities
  - Use of high throughput tools (e.g. rapid screening) to screen for potential risk
  - Importance of using international data and methods
- Recognition of value of ‘low’ priorities
  - Identification of lower hazard alternatives
- Recognition of information analysis and storage needs



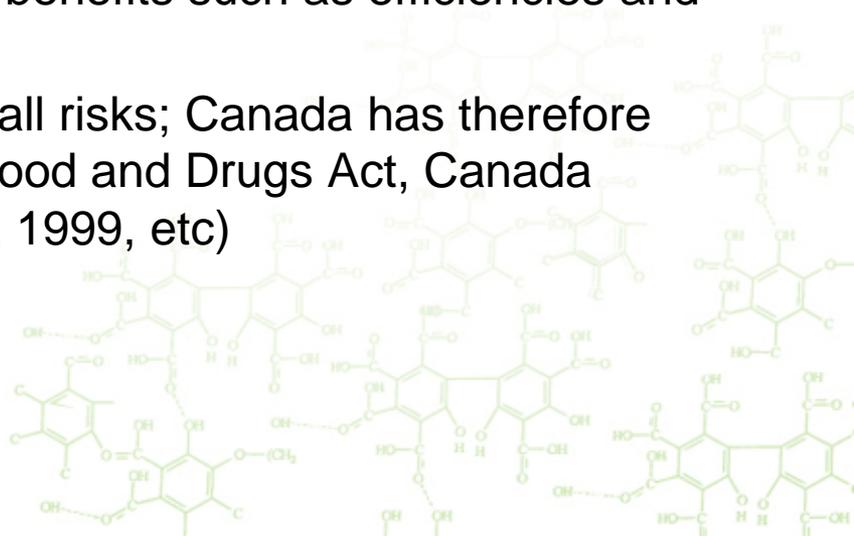
# Lessons Learned

- Importance of review processes (internal & external), ensure validity and consistency
- Constant need to prioritize, make workload manageable
- Predictive models for hazard and exposure
  - Develop and document consistent approaches for interpretation and incorporation
- Comprehensive search strategies
  - Ensures consistency and completeness
  - Defensibility of outcome
  - Constantly evolving



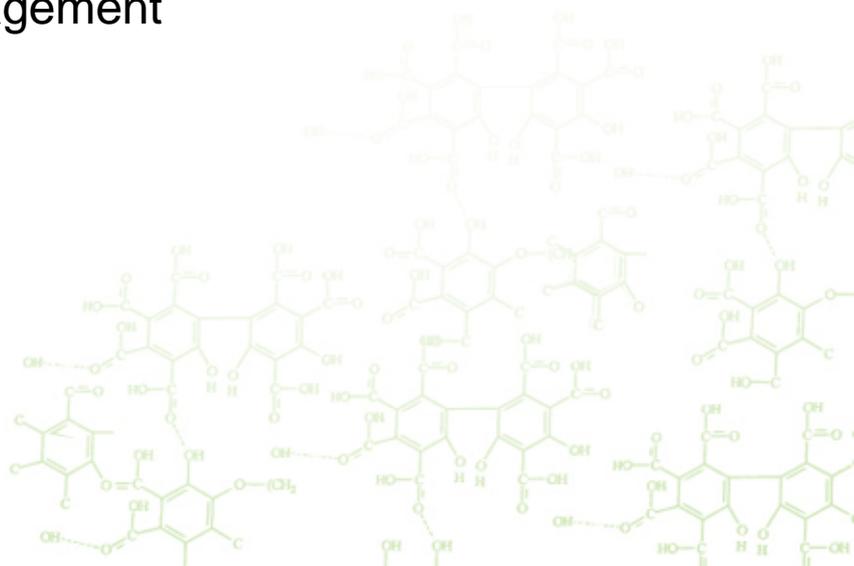
# Lessons Learned

- Importance of developing clear compliance promotion materials and using technology to provide greater access to a wider range of stakeholders.
- Documentation, record of basis for decision making, approaches adopted
- Careful consideration of which risk management instruments to use
  - Use of other instruments in addition to regulations
  - Working with industry to encourage voluntary actions can achieve the RM objectives and may provide other benefits such as efficiencies and flexibilities
  - No one Act is best placed to manage all risks; Canada has therefore adopted use of the best placed Act (Food and Drugs Act, Canada Consumer Product Safety Act, CEPA, 1999, etc)



# Lessons Learned

- Consumer products
  - Gather information early to identify chemicals in finished products intended for consumer use and develop consistent, realistic approaches to characterize
  - Often more important than volume of use/manufacture/import/release data
- Managing expectations!!
  - Stakeholders, public and senior management
  - Communication
    - up, down and out
    - continual



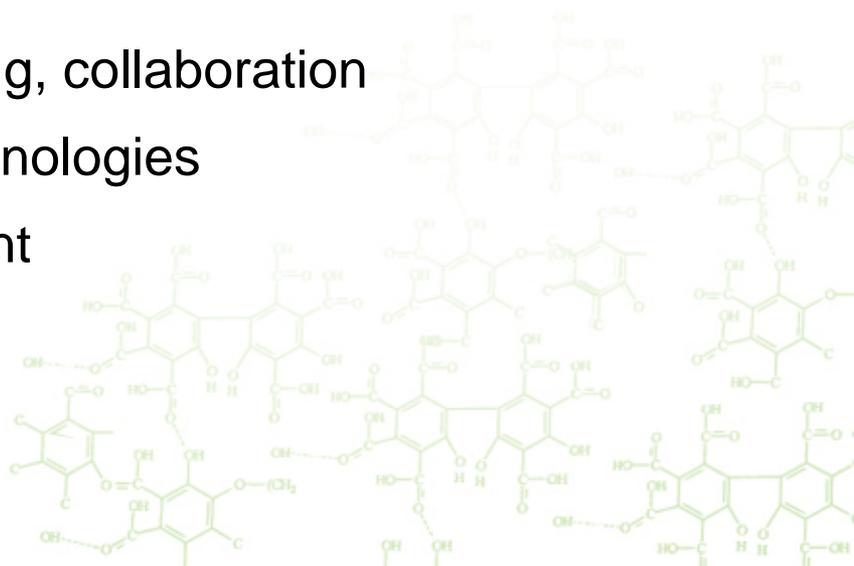
# Legislated or Publically Committed Deadlines: A Curse or a Blessing?

- **Curse**

- Requires much foresight & planning
- Resources ideally in place before clock starts
- Large volume of work, pressure & stress
  - Need to manage to avoid high staff turnover and subsequent staffing and training
- Consequences of not meeting deadlines

- **Blessing**

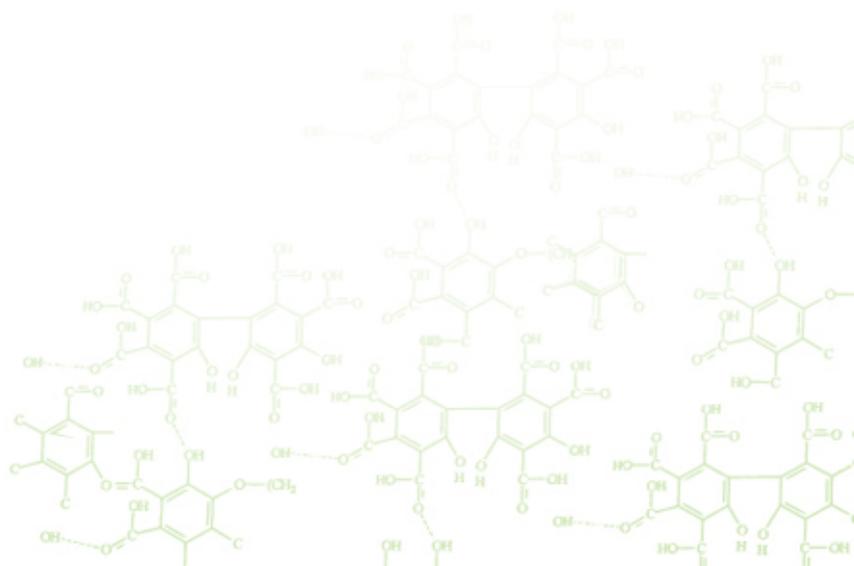
- Forces innovative, creative thinking, collaboration
- Advances used of alternative technologies
- Leading methodology development



# Summary

## Assessment and Management of Chemicals Under CMP

- ***A success story!!***
  - Visionary
  - Integrated approach
  - Fit for purpose
  - Efficient
  - Innovative





# Thank you!

