Infection Prevention and Control Guidelines: Experience of the Public Health Agency of Canada

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Canadian Health Care System: Roles and Responsibilities

• Provinces and territories
  » Primarily responsible for the financing and delivery of health care services

• Federal government
  » *Canada Health Act* provides the legislative framework for publicly funded health care services
  » Provinces receive federal funding for health care through the Canada Health Transfer
  » First Nations on-reserve receive services from the federal government in collaboration with the provinces
  » Public health is a shared responsibility
Government of Canada: The Health Portfolio

Minister of Health

- Canadian Institutes of Health Research
- Health Canada
- Public Health Agency of Canada
- Patented Medicine Prices Review Board
- Canadian Food Inspection Agency

President

Chief Public Health Officer

- Infectious Diseases Prevention and Control
- Health Promotion and Chronic Disease Prevention
- Health Security and Infrastructure
- Strategic Policy, Planning and International Affairs
Public Health Agency of Canada (PHAC): Mission & Mandate

Mission:
- To promote and protect the health of Canadians through leadership, partnership, innovation and action in public health

Mandate:
- Promote health;
- Prevent and control chronic diseases and injuries;
- Prevent and control infectious diseases;
- Prepare for and respond to public health emergencies;
- Serve as a central point for sharing Canada’s expertise with the rest of the world;
- Apply international research and development to Canada’s public health programs; and
- Strengthen intergovernmental collaboration on public health and facilitate national approaches to public health policy and planning.
Mandate / goals / role instead of what?

KATHLEEN DUNN, 7/10/2015
The Pan-Canadian Public Health Network was established by Canada’s Federal, Provincial and Territorial (F/P/T) Health Ministers in 2005, as a key intergovernmental mechanism to:

- Strengthen and enhance Canada’s public health capacity,
- Enable F/P/T governments to better work together on the day-to-day business of public health, and
- Anticipate, prepare for, and respond to public health events and threats.

www.phn-rsp.ca
Key Drivers for Guidance Development

- Innovations in technology
- Ministerial priority
- Importance to public health and primary care practice
- Prioritized through P/T governance
- Emergent/re-emergent issues
- Public health emergencies
- Expectations of Canadians
- International trends in public health guidance
- Expectations of Canadians
- SARS
- Hepatitis C
- Lyme Disease
- Tuberculosis
- Chronic Disease Prevention/Promotion
- Sexually Transmitted Infections
- Vaccine Preventable Diseases
- Infection Prevention and Control for Personal Service Settings
- Multi-drug resistant gonorrhea
- Ebola
- SARS
- Hepatitis C
- Lyme Disease
- Tuberculosis
- Chronic Disease Prevention/Promotion
- Sexually Transmitted Infections
- Vaccine Preventable Diseases
- Infection Prevention and Control for Personal Service Settings
- Multi-drug resistant gonorrhea
- Ebola
Guideline Development: Type of Products

- Comprehensive guidelines
- Targeted guidance (concise, organism / procedure specific)
- Interim guidance (emerging pathogens)
- Companion documents / tools (quick reference guides, KT tools, educational material)
Models for Developing Guidance

- **Internal Drivers**
  - Federal Role
  - Agency Mandate
  - Core Business
  - P/T Request
  - Emerging Issue
  - Strategic Priority

- **External Drivers**
  - Stakeholders
    - Professional Associations
    - Community of Practice
    - Public, Media

- **Guidance Document**
- **Needs and Risk Assessment**
  - YES
  - NO

- **PHAC Collaborates**
- **PHAC Provides Funding**
- **PHAC Develops Guidance**
  - Product outsourced
  - Product developed in-house
  - Components may be outsourced
## PHAC Guidance Development Models

Three core models for how the Agency acquires expertise to develop guidance

<table>
<thead>
<tr>
<th>Model</th>
<th>PHAC Collaborates</th>
<th>PHAC Provides Funding</th>
<th>PHAC Develops Guidance</th>
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</thead>
</table>
| Description | PHAC works collaboratively with provincial/territorial jurisdictions, experts and/or other interested stakeholders to develop guidance needed | PHAC provides money to “arm’s length” third party which develops, distributes public health guidance to stakeholders pursuant to funding agreement | 1. Developed by PHAC employees  
2. Developed through contract with experts  
3. Developed through external experts |

<table>
<thead>
<tr>
<th>Whose Guidance is it?</th>
<th>Varies, ownership needs to be negotiated</th>
<th>External Body</th>
<th>Government of Canada</th>
</tr>
</thead>
</table>
Infection Prevention and Control Expert Working Group (IPC-EWG)

- Voluntary membership agreement
- Recruited through a transparent nomination process
- Selected for subject matter expertise - infectious disease, infection control, medical microbiology, occupational health, and public health
- Geographical balance by jurisdictions and official languages
- Co-Chaired - PHAC Lead & IPC expert
- Oversees Guideline Working Groups

Assist with:

- Technical expertise in the development, dissemination, evaluation and implementation of IPC recommendations
- Providing timely technical expertise on current and emerging infection issues – scheduled and ad-hoc consultation
Schematic of Guidance Development Methodology

- Topic selection/Scope
- Key Questions
- Literature Search
- Grading of the Evidence (e.g., GRADE, CAT)
- Formulate Recommendations
- Approval Process
- Dissemination and Implementation
- Evaluation

Project Working Group engagement at all stages; EWG at key stages
Translation for official language required
Why develop a tool kit for critical appraisal of studies informing Infection Prevention and Control (IPC) guidelines?

- Paucity of RCTs in IPC research due to feasibility or ethical concerns with conducting such studies
- Difficulty in choosing the right critical appraisal tool
- Lack of clarity, detailed explanations and common language in available tools
- Inconsistency in appraising the same evidence; difficulty in reaching consensus
- Strong expertise in IPC but expertise in research methods and critical appraisal was variable; training needed

Currently available online

## PHAC Critical Appraisal Tool Kit (CAT)

<table>
<thead>
<tr>
<th>Appraisal Steps</th>
<th>Tools</th>
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<tbody>
<tr>
<td>Appraisal of individual studies</td>
<td>Critical Appraisal Tools (CATs)</td>
</tr>
<tr>
<td></td>
<td>• Analytic Critical Appraisal Tool</td>
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<tr>
<td></td>
<td>• Descriptive Critical Appraisal Tool</td>
</tr>
<tr>
<td></td>
<td>• Literature Review Critical Appraisal Tool</td>
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<tr>
<td></td>
<td>Supporting tools</td>
</tr>
<tr>
<td></td>
<td>• Algorithms for Naming Study Designs</td>
</tr>
<tr>
<td></td>
<td>• Study Designs Table</td>
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<td></td>
<td>• Common Statistical Tests Table</td>
</tr>
<tr>
<td></td>
<td>• Glossary</td>
</tr>
<tr>
<td>Summarizing evidence</td>
<td>Evidence Summary Tables</td>
</tr>
<tr>
<td></td>
<td>Guidance for developing recommendations</td>
</tr>
<tr>
<td>Appraisal of body of evidence</td>
<td>Grading system</td>
</tr>
</tbody>
</table>
### How is the CAT different from GRADE?

<table>
<thead>
<tr>
<th>Item</th>
<th>GRADE</th>
<th>CAT</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Study types</strong></td>
<td>Focuses on strongest types (RCTs and NRCT)</td>
<td>All types of studies (including observational studies, descriptive studies and systematic reviews)</td>
</tr>
<tr>
<td><strong>Criteria and Scoring for quality</strong></td>
<td>Individual study assessed Overall body of evidence graded</td>
<td>Individual studies graded Overall body of evidence also graded</td>
</tr>
<tr>
<td><strong>Explanation for users</strong></td>
<td>Brief descriptions of the criteria Limited background explanations and guidance for novices</td>
<td>Detailed criteria and instructions provided – more user friendly for novices</td>
</tr>
<tr>
<td><strong>Grading provided</strong></td>
<td>Evidence is graded as high, moderate, low or very low Recommendations are graded separately.</td>
<td>Evidence is graded as strong, moderate or weak Recommendations are not graded</td>
</tr>
</tbody>
</table>
Nosocomial and Occupational Infections

Infection Control Guideline Series

- Routine Practices and Additional Precautions for Preventing the Transmission of Infection in Healthcare Settings (2013)
  To obtain a copy of this report, send your request to cccid-clmti@phac-aspc.gc.ca
- Clostridium Difficile Infection - Infection Prevention and Control Guidance for Management in Long-term Care Facilities - New - January 2013
- Clostridium Difficile Infection - Infection Prevention and Control Guidance for Management in Acute Care Settings - New - January 2013
- Seasonal Influenza - Infection Prevention and Control Guidance for Management in Home Care Settings - New - December 2012
- Infection Prevention and Control Guideline for Flexible Gastrointestinal Endoscopy and Flexible Bronchoscopy
  To obtain a copy of this document, send your request to cccid-clmti@phac-aspc.gc.ca
Lessons Learned: Successes

- Different Models allow for selecting the optimal approach for scope and type of product
- Federal role and P/T partnerships - working within jurisdictional roles and responsibilities
- Target audience – health professionals
- IPC-EWG co-chaired by PHAC and IPC expert
- Needs assessment – involve all key stakeholders from start of project
- Guidelines are non-prescriptive
Lessons Learned: Challenges

- Expanded scope of program
- IPC issues and trends
- Resource implications, timeline, urgency, rigour
  - Resource intensive
  - HAIIPC staff team composition: 5.8 FTE
  - Work closely with HAI Epidemiology (CNISP)
  - Response to emerging events
- Guideline evaluation and maintenance
Acknowledgements

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