

Summary of Discussion Science Advisory Board Meeting

November 25 - 26, 2003

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Members in Attendance

Judith Hall
Keith Bailey
Karen Grant
John Kelton
Chris Loomis
Linda Lusby
Kathryn O'Hara
Paul Paquin
Ardene Robinson Vollman
David Roy
Dixie Snider

Ian Green
Janice Charette
Alan Bernstein
Pierre-Gerlier Forest
Diane Gorman
Kevin Keough
Scott Broughton
Wendy Sexsmith

Secretariat

Tammy Davies
Meggan Davis
Karoline Millson

Absent

Lorne Babiuk
Robert Brunham
Patricia Clements
Mark Goldberg
Janet Rossant
Stanley Vollant

Patrick Borbey
Helene Goulet
Ian Potter
Ian Shugart
Marcel Nouvet

Opening Remarks

Dr. Judith Hall, Chair

The Chair welcomed members and introduced new Board members in attendance. Approval of the revised Terms of Reference and Guidance Manual, and the appointment of a Vice-Chair and one new member are expected shortly. She encouraged members to identify candidates for nomination for the next roster of appointments in 2004.

Opening Remarks

Mr. Ian Green, Deputy Minister and Ms. Janice Charette, Associate Deputy Minister

The Deputy Minister welcomed existing and new members and thanked them for their contribution to Health Canada.

This meeting is taking place in a period of government transition. The Deputy Minister and Associate Deputy Minister outlined Health Canada's four medium-term policy themes:

- Towards a 21st century public health system
- Sustaining health care renewal
- Building a modern regulatory system
- Improving First Nations and Inuit health

The Deputy Minister acknowledged the critical role of science in informing policy-making, regulations and activities within each of the four themes. He also called upon the Board to provide advice on these issues and alert the Department to policy issues generated by advances in science (e.g., biotechnology, novel vaccines).

1. Towards a 21st Century Public Health System

The Deputy Minister provided updates on several initiatives that respond to immediate public health needs and will improve the public health system (e.g., manual for SARS outbreaks, development of an alert system, improving laboratory capacity, support for front-line workers). Health Canada must also continue to focus on chronic diseases. He also asked members to identify new priorities based on advances in science.

2. Sustaining Health Care Renewal

The Deputy Minister spoke about the work that has been undertaken to implement the commitments of the February 2003 First Ministers' Accord on Health Care Renewal. Health ministers have approved a set of indicators for performance reporting and are committed to establishing the Canadian Patient Safety Institute.

Health care renewal is a major field for continued research and application. Sustaining reform will require identifying and understanding emerging scientific discoveries. This will involve keeping up with health technology developments to ensure that they are applied for the benefit of all Canadians.

3. Building a Modern Regulatory System

Health Canada has extensive regulatory responsibilities for food, drugs, and consumer products.

The Department has a responsibility to:

- ensure the safety of drugs and medical devices;
- act with efficiency and effectiveness in these responsibilities; and,
- build a climate for innovation and economic benefits in a competitive global environment.

Science is a prerequisite for a modern risk-based regulatory system that is efficient and effective. The new Pest Control Products Act will modernize, strengthen and increase transparency in pesticide regulation. The Therapeutic Access Strategy will improve the regulatory process for drugs and enhance international cooperation. In both areas, there is a need for more research to provide a base for informed Health Canada decisions and consumer choices.

4. Improving First Nations and Inuit Health

Improving accessibility, efficiency, effectiveness and sustainability of the health system for First Nations and Inuit people is a priority. The Associate Deputy Minister articulated the need to build capacity in the First Nations and Inuit Health branch to respond to emergencies and support comprehensive public health services. She also emphasized “upstream” investments to prevent illness and promote good health in First Nations and Inuit communities. She asked the Board to consider ways that science can help the Department address these issues.

Discussion

- Board members were supportive of efforts to increase departmental consultation, engagement and information available to Canadians as a means to foster transparency and inform consumer choices.
- The Futures Initiative at the US Centers for Disease Control and Prevention was highlighted as a program that could provide best practices that may inform Health Canada’s efforts to increase engagement and foster a modern and responsive public health system.

Legislative Renewal

Mr. Mario Simard, General Counsel (HPCB) and Dr. Tig Shafto, Senior Surveillance Officer (PPHB)

At the September 2003 meeting, Mr. Simard provided a detailed presentation of Health Canada's legislative renewal proposal. Mr. Simard was asked to return to the Board to present a more detailed picture of the Health Surveillance and Research chapter of the proposal.

To facilitate discussion, Board members were asked to consider whether the proposal appropriately defines research and surveillance, and identifies the kinds of information and scientific activities the Department will require to fulfil its roles.

Discussion

- The definition of research should not focus strictly on discovery of new facts, knowledge and information. The definition should give equal weight to the importance of advancing existing knowledge or making use of existing data or information. It should also reference applied research and the importance of replicating and corroborating findings.
- The list of research activities should be expanded to include how to best translate bench research into useful health interventions.
- Board members believe that it is important to ensure linkages between research and surveillance to ensure that results are shared and inform future work.
- There are several dimensions to the concept of public health. In articulating a definition, it should be determined if it is intended to encompass the state of the public's health, the public health system, how the public protects its health, or if a broad definition is required to envelope all these factors.
- The definition of health surveillance and its functions should reflect clinical medicine and its integration in the health system. Board members suggested modifying the latter part of the definition to read "... and guide health action".
- It is important to track data over long periods to view trends, inform long term interventions, and conduct analysis. This is particularly important for understanding determinants of health (e.g., indoor and outdoor environmental influences, exposure to known and unknown disease-causing agents).
- Board members were particularly interested in how the proposal will affect Health Canada's legal authority to collect, share and protect health information and the manner in which Health Canada works with provinces, territories, and other jurisdictions.

Knowledge Translation

Sonya Corkum, Vice President of Partnerships and Knowledge Translation (CIHR)

(Please refer to presentation slides)

Ms. Corkum delivered a presentation on CIHR's knowledge translation activities, challenges, partnerships and strategies for improving the uptake and dissemination of research results. The development of Networks for Health Innovation were highlighted as one of CIHR's principal activities to improve knowledge translation.

Discussion

- Board members encouraged the use of a variety of tools and methods based on the nature of the audience and the type of research to effectively translate knowledge.
- There is concern that knowledge translation can establish hierarchies based on how amenable research is to translation. Individuals who focus their work on knowledge translation often do not receive credit for this work, particularly in peer reviews or when applying for funding.
- It is important to distinguish between the concepts of knowledge translation and knowledge transfer. In comparison, knowledge translation involves additional challenges of contextualizing, interpreting, and understanding the information and the audience.
- There is an increasing demand for research and evidence by non-traditional groups (e.g., schools). Health Canada should increase public and stakeholder awareness of both its research and knowledge translation activities to improve understanding and collaboration.
- For Health Canada's knowledge translation activities to be successful, it is necessary to be a part of formal and informal networks to identify gaps in the knowledge base and to develop research questions and agendas.
- Health Canada should engage in research on how to best translate its research to better benefit departmental decision-makers and external partners.
- The Board would like to understand the extent of Health Canada's knowledge translation activities and would appreciate a presentation and the opportunity to discuss this subject in greater detail. It would also like to be kept informed of the work of CIHR and the development of the Networks for Health Innovation.

Science and Health Canada

Dr. Kevin Keough, Chief Scientist

(Please refer to presentation slides)

As part of the Framework for Science process, data were collected and analysed to develop a picture of the scope and the roles of science and research at Health Canada. Dr. Keough presented this data in conjunction with the Department's expenditures and its human resources capacity in science and research.

Discussion

- The emphasis of departmental science and research activities has evolved over the years. There is now less research performed in relation to RSA. Surveillance has also increased in proportion to other activities. A time series chart was suggested as a means of tracking the shifts and trends in these areas.
- While Health Canada may only have limited resources, it needs to invest these strategically. Foresight exercises would help the Department identify future challenges and opportunities and allocate the resources required to meet them.
- Mentors were suggested as a means of bridging inter-generational gaps and transferring experience in key areas.

Addressing Human Resources Capacity in Science and Technology at Health Canada

Ms. Diane Gorman, Assistant Deputy Minister (HPFB)

(Please refer to presentation slides)

Ms. Gorman presented the challenges facing Health Canada's science and technology community, and current and planned initiatives to enhance recruitment, retention, partnerships, and innovative work structures. This was a follow-up to the May 2002 presentation to the Board.

Discussion

- Board members agreed that it is necessary for Health Canada to have a human resources strategy that enables the Department to meet both immediate and long term opportunities and challenges. Current initiatives such as the Workplace Health and Human Resources Modernization (WHAHRM) Action Plan, the Postdoctoral Fellowship Program, and the federal S&T Community Partnership program are positive steps.
- Board members discussed various tools to enhance human resource capacity within the Department, including mentoring, summer students, fellowships, and partnerships with schools and professional societies.
- In order to effectively attract and retain individuals, different approaches are necessary to appeal to different demographic groups and individuals in particular professional areas.

Continuous Learning

Dr. Claire Franklin, Advisor, Deputy Minister's Office

(Please refer to presentation slides)

A supportive continuous learning environment is an important element in ensuring Health Canada's scientists and researchers remain at the leading edge of their fields. Dr. Franklin discussed the importance of competencies and provided an overview of the continuous learning policies and development programs at Health Canada.

Discussion

- The Board found this presentation to be informative about Health Canada's continuous learning programs and the Department's efforts to become a learning organization.
- The discussion included theories and pedagogy of adult education as the science base for continuous learning endeavours.
- The Board supports efforts to ensure that Health Canada scientists and researchers receive ongoing training to maintain the currency of their skills and to develop new competencies.

Framework for Science

Dr. Mary L'Abbe, A/Executive Director, Framework for Science Secretariat (OCS)

(Please refer to presentation slides)

As part of the formulation of a Departmental Science Plan, branches were asked to provide information about their activities, resources and alignment of their science activities. Dr. L'Abbe presented the results of this phase of the Framework for Science and an analysis of the data collected.

Discussion

- The Board appreciated the update on the development of the Departmental Science Plan.
- Board members were pleased to see that more information is now available about the extent of the Department's partnerships, review mechanisms and diversity of science performed and used.
- Lessons learned from the initial collection of data and roll-up into the Departmental Science Plan should be applied to future Framework for Science exercises and other activities, as appropriate.
- The use of quantitative metrics such as publications or peer review data were suggested as possible means of measuring excellence. While these metrics are important, they are not always sufficient and should be used or compared where appropriate (e.g., within the same field).
- The Board was interested in the results of the top-of-mind foresight exercise conducted by the Science Coordinating Committee. While the list of issues identified was not intended to be exhaustive, Board members felt that a more formal foresight activity to identify opportunities, challenges, gaps and strengths would be useful for the Department.
- Dr. L'Abbe will circulate a draft Science Plan to Board members in the near future.

Health Canada Biotechnology Framework

Dr. Pierre Charest, Director General, Office of Biotechnology and Science (HPFB)

(Please refer to presentation slides)

The Health Canada Biotechnology Framework provides the basic operating framework under which the Department performs its duties as they relate to biotechnology. It describes Health Canada's roles, responsibilities, guiding principles and strategies for its biotechnology activities. Dr. Charest outlined the Framework's objectives and sought the Board's input on defining priority areas.

Discussion

- There was concern that it would be very difficult to identify or develop a consensus on the definition of Canadian values, as included in the Framework's principles.
- It was suggested that risk management should be added as a principle.
- Given the numerous applications of biotechnology and its potential impact on issues such as health care, pharmacogenetics, and reproductive technologies, it is important to ensure that Canadians are not denied access to the benefits of biotechnology. The Board urged the Department to continue working with other departments, the provinces and the territories to safeguard the public interest as it relates to commercialization, intellectual property and privacy.
- The Board would like to know more about the strategies, tools and messages Health Canada and other departments will use to communicate about the Framework and biotechnology. Specifically, the Board would like to receive the polling data on genetics offered by Dr. Charest.

November 26, 2003

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Helene Goulet
Ian Potter
Ian Shugart
Marcel Nouvet

Secretariat

Tammy Davies
Meggan Davis
Karoline Millson

Science Visits

Board members visited PMRA Laboratory Services, the acrylamide and allergens laboratories of the Food Directorate, and the Biomolecular and Structural Chemistry Division of the Biologics and Genetics Therapies Directorate (HPFB).

The Board found the tours very informative about the roles of these facilities and the exceptional science they perform. Board members appreciated the opportunity to meet with scientists in these areas.

The Board commented on the importance of ensuring Health Canada facilities are equipped with the current technology necessary to perform high quality, timely science and investigation in support of the Department's policies, programs and regulations.

Update from the Chief Scientist

Dr. Kevin Keough, Chief Scientist

Dr. Keough provided a summary of his recent meeting with the UK's Chief Scientist, Sir David King. He outlined the topics of their discussions, including stem cell research, SARS, and climate change.

This fall, the Office of the Chief Scientist (OCS) hosted the Health Canada Research Forum, including the Chief Scientist's Distinguished Lecture, held the Innovative Science Competition, and launched the second recruitment campaign for the Postdoctoral Fellowship Program. Dr. Keough also provided an update on the activities of the Research Ethics Board and the development of a Departmental Science Plan as part of the Framework for Science process.

In the coming year, the OCS will facilitate at least three programmatic peer reviews and site visits. Dr. Keough invited interested Board members to participate as reviewers on the panels.

Discussion

- Board members were interested to hear about the Postdoctoral Fellowship Program and how individuals can apply. Members suggested additional ways to raise awareness of the program within the scientific community.
- The Board would like the opportunity to meet with departmental regulators to hear about how regulations are applied and best practices employed to foster excellence.
- As a supplement to the programmatic peer review, it was suggested that Health Canada may wish to look at the experience of the FDA in conducting reviews. Reviews of scientific personnel at the FDA were performed to capture a broader picture of scientific work by examining how scientists work beyond their laboratories.

Research and Policy Development

Dr. Pierre-Gerlier Forest, G.D.W. Cameron Chair

(Please refer to presentation slides)

Dr. Forest delivered a presentation on the role of evidence in policy-making and how knowledge is transferred from researchers to policy makers. Dr. Forest outlined models for learning networks and research uptake intended to facilitate knowledge transfer.

Discussion

- Members were interested in how these models bridge gaps between public opinion or political directions and evidence that does not support these views. Consultation, timing and the nature of the evidence are all key factors in reconciling different perspectives or solutions.
- Different types of evidence and knowledge are necessary inputs in the decision-making process. Similarly, different experts may present different or conflicting evidence on one issue (e.g., climate change). This conflict, however, can sometime be confusing for the public.
- While there is a tendency to reference the public sphere, there are many diverse publics. It is important to identify the public before a model for a learning network is chosen.

Lessons Learned from BSE

Dr. Karen Dodds, Director General, Food Directorate (HPFB)

(Please refer to presentation slides)

Dr. Dodds provided an overview of the context of the discovery of BSE in a domestic Canadian cow, its implications for public health, the Government of Canada's response, and lessons learned by Health Canada. The presentation focussed on the challenges and successes of the response to the emergence of BSE in Canada.

Discussion

- The SARS crisis and the discovery of BSE had important public health implications. The Board was interested to know how the Department's response to SARS informed its actions for BSE.
- Board members were impressed with the Department's communications strategies and messages that directly addressed public concerns about health and the economic implications of BSE. The Board noted that the communications challenge would have been greater if a second case were found.
- Given that BSE has been confirmed in Canada, greater testing, research and receptor capacity are required at the federal and provincial levels.