Activities of Health Canada's Science Advisory Board

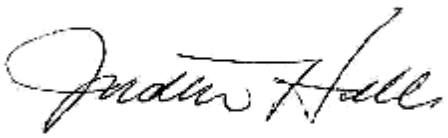
Annual Report to the Minister of Health
2003 - 2004

Message from the Chair

On behalf of the Health Canada's Science Advisory Board, I am pleased to present this report of our activities for 2003 – 2004. I would like to thank the Board's Vice Chair, Linda Lusby, for her review of this report.

As my term as Chair of the Board draws to a close, I reflect with great pleasure on my years of service with the dedicated and distinguished Board members and departmental officials. I am proud of our accomplishments in supporting Health Canada's role to maintain and improve the health of Canadians.

The Science Advisory Board, in its advisory role to the Minister of Health, has hopefully provided timely and useful advice to you. We are interested in your comments and feedback. I encourage you to contact us and share your thoughts about our work and on the contents of this report.



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Background

Created in 1997, the Science Advisory Board provides a valued source of expert, independent advice to the Minister of Health on the science performed and used by Health Canada.

The responsibilities of the Board include:

- providing broad strategic advice on the scientific activities of the department;
- providing advice on the relevance and quality of the science performed and used by Health Canada;
- providing advice on the science underpinning a range of issues addressed by Health Canada;
- reviewing and advising on emerging health sciences, scientific trends, challenges and opportunities in national and global contexts;
- providing advice on the Department's knowledge translation activities;
- providing broad strategic advice on the communication of the science performed and used by Health Canada; and
- providing advice on scientific partnerships and linkages.

The members of the Board, who are appointed by the Minister of Health, are individuals external to the federal government who have scientific knowledge, experience and expertise relevant to the mandate of Health Canada.

The Terms of Reference of the Board, its membership and meeting records may be found at http://www.hc-sc.gc.ca/sab-ccs/index.html.

The Secretariat is housed within the Office of the Chief Scientist and supports the substantive and administrative functions of the Board. In addition to providing administrative support to the Board through the Secretariat, the Chief Scientist acts as a liaison between the Board and senior departmental officials to facilitate cooperation and communication.

The Board respects the mandates of other departmental advisory committees and panels.

Operations

There were four Science Advisory Board (SAB) regular meetings and one teleconference held between September 2003 and May 2004. Board member attendance averaged 71%. There was a total of 45 agenda items, of which 30 were presented for advice, 10 were item updates, 2 were site visits, 2 were presentations from external experts and there was an exhibit of departmental research posters.

Exit interviews are ongoing with retiring SAB members, the outgoing Chief Scientist and other federal government officials who have worked with the SAB and now have moved to new assignments. The purpose of these interviews is to gather feedback and improve the effectiveness of the Board and its value to the Department.

The use of discussion leaders was introduced this year as a useful approach to better the Board and stimulate discussions on particular issues. Specified Board members were asked to introduce the agenda item, summarize the discussion and advice at the end of the presentation session and assist the Secretariat with the meeting record of that portion of the meeting.

Board members continue to be interested in receiving feedback from departmental officials regarding the usefulness of their advice and how it is implemented. A formal mechanism to communicate Board advice and collect feedback on how advice is used within the Department is recommended. Informal discussions with presenters coming to the SAB indicate that consultation with the SAB provides objective and expanded points of view. SAB critiques and recommendations have guided officials in working with their departmental colleagues on issues which impact more than one program area.

Overview of Discussions during the Year 2003 - 2004

A 21st Century Public Health System

The Board strongly endorses an inclusive definition of public health and urges the Department to ensure that infectious and chronic diseases and health promotion are included and balanced.

Members believe there is value in communicating the responsibilities of the Health Canada in public health issues and distinguishing them from the roles of other jurisdictions. Health Canada is encouraged to take an active leadership role in sharing technologies, information and best practices as part of a larger public health network.

Health Canada is urged to take a leadership role in developing partnerships in order to provide necessary training in the area of surveillance and outbreak investigation.

The board emphasizes that in the creation of a new Public health Agency it will be important for the Department to not duplicate what is already in place, especially with respect to science advice and expertise. Health Canada's Chief Scientist, Science Advisory Board, Canadian Institutes of Health Research (CIHR), Departmental Science Framework, academe and community medicine are important resources for the new agency.

Legislative Renewal

The Board is pleased that Health Canada is reviewing and renewing its health protection legislation. We recognize the need to reconcile the tension between personal privacy and fostering and protecting the public good.

Health Canada should be granted the authority to collect new and existing information in order to identify and respond to health events in an effective and timely manner.

Health Canada is encouraged to work closely with other jurisdictions to collect and share research and other pertinent information, while respecting personal privacy concerns.

Building a Modern Regulatory System

Through the Therapeutic Access Strategy, Health Canada has an opportunity to build a more effective and efficient regulatory system, with decisions based on the best scientific data, provided in a consistent and efficient manner. The Department has made remarkable achievements in improving pre-market regulations, stakeholder consultations and in reducing the backlog of submissions. The Board looks forward to future progress reports on this important initiative.

Post market surveillance is necessary to ensure that Health Canada has the information on product interactions and side effects in the long and short-term in order to protect the health of Canadians and to be an effective regulator. Consumers need reliable information about drug products; the pharmaceutical dispensing community should be put to greater use as a front line primary health information provider.

Rigorous, methodological measures to evaluate and monitor new human technologies are recommended. Evaluation strategies should be built in at the design phase of a regulatory program.

Risk Management

Risk management strategies should be based on concrete scientific data on humans. Risk assessments should embrace new technologies such as nanotechnology and consider intended and unintended public health and other impacts.

Health Canada is advised to look at prioritizing their risk management strategies according to prevalence of exposure, estimates of risk and possible interactions between substances The Board advises that this complex activity have a follow-up and evaluation strategy built into it.

The Department should work cohesively to prioritize and present balanced messages to the public regarding risks to human health.

Framework for Science:

The Board and recognizes the importance of the Departmental Science Framework and sees value in the forecasting of what science Health Canada may need in the next five to ten years.

The Board has reviewed Health Canada data on its diverse science activities, resources, alignment of activities, partnerships and review mechanisms.

There is a clear and important role for social, human, epidemiological, evaluation and statistical sciences at Health Canada. A culture change is needed whereby the Health Canada community of social scientists is better recognized and connected.

Science Capacity

Concurrent, coinciding health issues can challenge the department's capacity. 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.

The board encourages the integration of Health Canada's human resource plans and initiatives with the federal science and technology community as a means to share best

practices and resources, modernize the workplace and provide a supportive environment for scientists and researchers;

The Board encourages Health Canada to build and invest in dedicated research capacity to mine data, conduct analyses and provide interpretation.

The Board supports efforts to ensure that HC scientists and researchers receive ongoing training to maintain the currency of their skills and develop new competencies.

Biotechnology Framework

The Board reviewed the Department's Biotechnology Framework and welcomed the opportunity to input into defining priority areas. We feel that it is important to ensure that Canadians are not denied access to the benefits of biotechnology.

Members urged the Department to continue working with other departments, the provinces and territories to safeguard the public interest as it relates to commercialization, intellectual property and privacy.

Regular evaluations and literature reviews should be carried out to ensure the currency of the Framework and to assess the long term impact of biotechnology.

First Nations and Inuit Health

The Board supports sustained multiple point interventions to improve public health in these communities. There is a need to transfer the knowledge from public health professionals to the community so that it may take ownership of issues and challenges and devise solutions.

Given the high usage of natural health products in Aboriginal communities, and the potential for drug interactions with other medications, an information network that specifically includes Aboriginal communities, physicians and natural health practitioners is necessary to ensure that Canadians make informed decisions about natural health products.

The First Nations and Inuit Health (FNIH) Research Agenda should focus on four main priorities: surveillance/monitoring, public health issues, health service delivery and knowledge translation. The Board stressed the importance of addressing community trust and the application of gender-based analysis in all FNIH research. Care must be taken to consider socio-economic and ethical factors.

The Board strongly supports the development of a database of research done on the health of Aboriginal peoples as a basis for moving forward in our own Aboriginal people's health care.

Science in Policy Making

Health Canada should generate increased awareness of the practice and value of how knowledge is transferred from researchers to policy makers. We encourage exploration of models that will enhance the uptake and dissemination of research results.

Board members believe the Department should engage in research on how to best facilitate the use of science in policy and decision-making at Health Canada and with external partners.

The Board applauds CIHR's creation of Networks for Health Innovation to improve knowledge translation.

Infectious disease

The SARS crisis and the discovery of BSE had important public health implications. The Board has concerns that Health Canada communications do not reflect a science basis nor do they profile the work of the scientists at Health Canada. It is recommended that these concerns be followed up in for an upcoming Board meeting

The Board supports ongoing research and funding to improve the Department's ability to predict and respond to BSE and other related diseases. The Board encourages the Department to work with other federal departments, the provinces, territories and universities to develop a national response to any future cases of BSE.

It is important for Health Canada to have a robust vaccine strategy to address potential pandemics, including the means to shorten the time between the development of a vaccine strain and its production for use. More needs to be understood about the efficacy of antivirals as both a prophylaxis and treatment.

Environment and Human Health

The Board stresses importance of a population health approach to this issue. Investment in "upstream research", foresight activities and surveillance is necessary to direct research, inform decision-making and enhance capacity for the early identification of environmental determinants of health.

The Board believes that more information is needed on the cumulative effects of pesticide use. The public also needs accurate information about the use of natural pesticides.

The Board recommends monitoring biological indicators, disease outcomes, susceptible individuals and populations and interaction of chemicals in the environment. Mapping should be performed on the interaction points between human health and the environment.

Reproductive Technologies

The Board strongly endorsed legislation concerning reproductive technologies and recommends that an assisting reproductive technologies overview body is set up as soon as possible.

Chief Scientist

Given the board's role in advocating the creation of a Chief Scientist position at Health Canada, the Board has taken a particular interest in the activities of the Chief Scientist and his office.

The Board welcomed regular Chief Scientist updates on the Postdoctoral Fellowship Program, Innovative Science Competition, Research Forum, Research Ethics Board, research partnerships and Council of Science and Technology Advisors (CSTA).

The Board applauds the work of the outgoing Chief Scientist who, as a key advisor to the Deputy Minister, has led the Department's enhancement of strategic science capacity, fostering of partnerships and strengthening the role of sound science advice in decision making.
The Chief Scientist has made a significant contribution in his role as advocate for science and technology through profiling science activities at Health Canada, building partnerships with other scientific organizations and instituting the Research Ethics board and peer review processes. The role of science is now embedded in Departmental planning, priority setting, evaluation and policy development

Members feel strongly that the full spectrum of science, including the social sciences, should be included in the mandate of the Chief Scientist and that efforts should be made to engage the broad science community.

In the search for a new Chief Scientist to replace the outgoing Dr. Kevin Keough, the Board recommends the successful candidate should have the ability to be a strong leader of Health Canada's science community in order to have the credibility to inform policy and decision-making.

Year in Review

In addition to updates at each meeting from the Deputy Minister and Assistant Deputy Minister, the Board has engaged in useful discussions with such distinguished guests as:

- ✓ the Honourable Carolyn Bennett, Minister of State for Public Health
- ✓ Dr. David Naylor, Chair of National Advisory Committee on SARS and Public Health and
- ✓ Dr. Arthur Carty, National Science Advisor to the Prime Minister

The Board appreciates these types of interactions whereby insights are gained to guide us in our deliberations.

Health Canada is commended for building a strong linkage with CIHR. Increased cooperation among researchers is encouraged to further strengthen this link.

The Open House event increased interaction and understanding between the Board and Health Canada's scientists and policy makers. Tours of laboratories and the Emergency Operations Centre were very informative about the roles of these facilities. Board members especially appreciate the opportunity to meet with research scientists in their work environments and see first hand the science they perform. It was noted that 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.

The Board is pleased to have the opportunity to serve Canadians and provide Health Canada with advice on pressing scientific issues.