

REPORT OF THE SEPTEMBER 2002 MEETING

RAPPORT DE LA RÉUNION DE SEPTEMBRE 2002

SCIENCE ADVISORY BOARD

LE CONSEIL CONSULTATIF DES SCIENCES

**September 24-25, 2002
les 24 et 25 septembre 2002**

**Health Canada
September 2002**

**Santé Canada
Septembre 2002**

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Participants

Members: Judith Hall, Karen Grant, Rodney Ouellette, Irv Rootman, Carol Herbert, Ardene Robinson Vollman, Lillian Dyck, Elizabeth Jacobson, Stuart MacLeod

Ex Officio Members: Ian Green, Kevin Keough, Diane Gorman, Scott Broughton, Rod Raphael

Others: Laure Benzing-Purdie, Lesley Drummond, Janice Hopkins

Secretariat: Valerie Marshall, Glennis Lewis, George Bateh

Day 1, Tuesday, September 24, 2002

1. Opening Remarks - (Chair - Judith Hall)

The Chair welcomed members to the meeting.

She outlined the focus of the November meeting, which would be the environment and health and expressed her hope that members of the Environment Canada Science Advisory Board would be able to attend.

The Chair also noted when new board members are appointed, the Secretariat would organize an orientation. She asked for any suggestions on orientation materials to be passed along to the Secretariat.

2. Health Canada Update and Welcoming Remarks - (Mr. Ian Green, Deputy Minister)

The Deputy provided an update of activities since the Board met in May, including: health care renewal, Health Canada's innovation paper, the outcome of the federal provincial-territorial meeting of the Minister's of Health and the Department's forthcoming Healthy Living Strategy.

The upcoming Romanow Report and the response to it by government will raise some fundamental issues, he noted, including transfer legislation. "Machinery" issues, such as whether or not the current mechanisms are the right ones in terms of moving ahead towards the future. The questions of ensuring citizen involvement and evidence-based decisions remain important ones for consideration and debate.

The Prime Minister plans to hold a First Ministers' Meeting after the Romanow Report is issued, as one part of a significant debate on health care renewal. The Deputy reported he expects health care to be front and centre on the national agenda very early in 2003.

In focussing on Healthy Living, he noted that two-thirds of deaths each year in Canada result from four disease groups: diabetes, cancer, cardiovascular and respiratory disease. Risk factors for both adults and children include physical inactivity and poor diets.

The Minister and her provincial and territorial counterparts have agreed to develop pan-Canadian healthy living strategies that emphasize nutrition, physical activity and healthy weights. With this focus, there is a need for an evidence-based approach to healthy living strategies and questions on how the country builds research and policy remain important ones to be answered.

The Deputy updated the Board on work being done on the links between health and the environment, noting on-going departmental interest in this area. Working through the Canadian Institutes of Health Research, Health Canada and Environment Canada are working to establish a national agenda on research priorities on the environmental influences on health. He suggest this is an area where the Science Advisory Board could play a significant role in providing advice and guidance.

He reported on a federal-provincial-territorial meeting with Deputy Ministers of Health and the Environment held early in the fall, noting this was the first time such a meeting had taken place. A small working group of federal and provincial officials will look at potential opportunities where a collaborative partnership would benefit Canadians. The Deputies' priorities would include air, water and the impacts on sub-populations.

In the area of therapeutics review, the Deputy assured the Board the Department was taking steps with regard to the review process. The three areas of concern are: speed of access to new therapies, length of review times and the transparency or openness of our overall processes for therapeutics review and evaluation.

The Department has launched a project investigating the use of foreign reviews. He noted there are standards for scientific excellence, but that it may be in Canada's interest not to repeat work unnecessarily in this area. A strategy has also been developed for clearing the current backlogs of therapeutic products. He estimated the backlog would be cleared in two years. The Department is also developing management strategies to prevent such backlogs in the future. There is a need, as well, to bring together stakeholder and industry groups in a shared forum, which will build relationships.

These initiatives will have a significant impact, the Deputy explained. The Department will have some new tools and mechanisms to use for two important ends: for ensuring that Canadians have timely access to safe, effective therapeutic products and for developing a system that is more open and transparent.

In touching on the Senate Special Committee on Illegal Drugs, the Deputy noted much of the publicity generated by the report revolved around the legal status of cannabis. The committee made several important recommendations in other areas, including the appointment of a national advisor on psychoactive substances and dependency, holding a high-level conference of key stakeholders, developing an integrated policy on the whole range of psychoactive substances, including alcohol and tobacco and to increase funding for research. The Minister has asked the Department to review the many recommendations of the committee. That work has begun.

The “health sector” in Canada is one of the largest of all economic sectors. How we innovate in the health sector is critical to the overall innovation in the economy. If the sector is not sufficiently innovative, it will act as a drag on the economy’s overall pace of innovation. If the health sector is dynamic and a leader, it will have a positive influence.

Health Canada is anticipating work on four policy fronts to enhance the pace of innovation in the health sector. The first is reform of the health care system and the second is the regulatory reform related to therapeutic evaluations.

The third policy front is community development. Telehealth, developing electronic health care delivery in homes and communities, expanding surveillance systems and expanding the information available on the Canada Health Portal are all aspects of community development.

The fourth area is science and research. Health Canada must have the scientific and research expertise to fulfil its multiple roles. Health Canada cannot be the best at everything, so the Department needs to understand where we have a comparative advantage and ensure that there are no impediments to benefiting from that advantage.

Discussion included the following points:

- The link between health and environment is an important one. Government responsibilities across the country mean engaging health ministers on environmental issues is difficult, and vice versa. It is difficult, but not impossible.
- There has been some progress on the common drug review process designed to start up in 2003. The process will involve a common single template: the pharmaco-economic review. The federal responsibility in this area will continue to be efficacy and safety. The provinces may have to be pressured to be more effective.
- One of the vulnerable population groups is children. The health and environment area, as well as healthy living, all affect children and those linkages are important.
- The Senate Special Committee on Illegal Drugs has reinforced policy and science capacity work being done in the Healthy Environments and Consumer Safety Branch.
- There are scientific reviews involved in responding to the Senate Report, the House of Commons Report and the Drug Strategy.
- The Department might like to come to the Science Advisory Board for a post-Romanow discussion.

- Reports from the provinces on health are due out September 30. In keeping with previous agreements, each province will report to its citizenry. Some jurisdictions will have comparative data.
- Health literacy and the digital divide have serious implications for promoting community development through electronic health initiatives.
- The issue of gene patenting also involves issues of privacy, technology and research. There are domestic and international implications with this issue.

3. **Update - Office of the Chief Scientist** *(Dr. Kevin Keough, Chief Scientist)*

Dr. Keough described his report as an informal report card on progress made by the Office of the Chief Scientist, as well as highlighting the science accomplishments achieved across the Department.

Through the Office of the Chief Scientist, the Secretariat provides support to both the Science Advisory Board (SAB) and the Research Ethics Board (REB). The Research Ethics Board, which convened recently for a training seminar, is an independent body which reports first to the Office of the Chief Scientist and then to the Deputy Minister. The REB's eight members will hold their first meeting on October 2 which will include a formal discussion on operational guidelines and procedures. Several applications have already been received and will be on the agenda as soon as possible.

It is imperative that everyone who needs to be is aware of the REB. Over the coming weeks, presentations will be made to branch-level executive committees. Training sessions for Health Canada scientists and science managers are also being organized.

The development of a Science Advisory Board Guidance Manual is on-going. The manual is based on the Board's Terms of Reference, the feedback from the forward planning session held in the spring and from the Council of Science and Technology Advisors' Reinforcing External Advice to Departments (READ) Report and will outline the roles and responsibilities of the Board, of the Secretariat and of those who seek and receive advice from the Board. It will also establish procedures and guidelines related to the operation of the SAB.

Concerns expressed by SAB members about the website were taken seriously by the Office of Chief Scientist (OCS). Over the summer, all meeting records were posted, as well as SAB's Terms of Reference, as well as updated member biographies. Work continues on posting presentations made to the Board. In addition, improvements to the design and layout of the website are being made so that it adheres to the Government of Canada's common-look-and-feel guidelines.

For the OCS, promoting science inside and outside of Health Canada is an important activity. The OCS is working hard to develop the Framework for Science, through which

the Department can clearly establish priorities for science and research. This framework, begun at the request of the Deputy Minister and Associate Deputy Minister, will ensure that Health Canada performs, and has access to, critically important science that is required to fulfill the department's mandate and contribute to the government's overarching priorities.

The Science Framework Process has three main steps:

- 1) to develop a Departmental Science Plan every three to five years (and updated as required). The plan will indicate the science requirements and activities needed to meet the department's mandate.
- 2) branches implement the approved plan and based on their annual planning process, identify and inform the Science Coordinating Committee and the Science Executive Committee of emerging science requirements that could affect the Departmental Science Plan.
- 3) to evaluate the implementation of the Departmental Science Plan, as well as the Framework for Science.

Another area of work for the OCS is the launch of the postdoctoral fellowship program (PDF) at Health Canada. The program has allocated funds for 10 individual fellowships annually. It is a two-year award, open to any discipline and features a peer review of both the research and the researcher.

Initial response is positive, with 70 applications received so far. The mentor list has been expanded to about 45 people. Only one aspect of the program has disappointed so far: the program has attracted only a few mentors to the social sciences component of the program.

The OCS is also building on peer reviews in key areas of Health Canada where science and research are being conducted. The first is the Zoonotics program in Winnipeg, which has led to the development of a framework for a systematic peer review of all scientific activities across the Department.

Building on what was learned from the Zoonotics pilot, all Health Canada branches were asked to submit proposals for peer reviews. The majority of proposals have come from the Population and Public Health Branch and the Office of Healthy Environments and Consumer Safety.

Two proposals have been identified: the National Laboratory for Zoonotic Diseases and Special Pathogens, and a possible front-end peer review of proposed scientific activity underway in the Bureau of Veterinary Drugs.

On another front, competition is underway for the Office of the Chief Scientist's Strategic Science Capacity Fund. Feedback has been promising, with 84 letters of intent with some 54 passing through the initial screening. The successful applicants will be asked to develop their letter of intent into full proposals which will then be externally peer reviewed.

Excellence in science is a cornerstone of the work of the OCS. Lab accreditation plays a key role in this area. A panel of experts will be convened this fall, followed by an implementation strategy by the branches to introduce accreditation and other quality systems in identified labs across the department. The OCS will coordinate these activities, with costs borne by the branches.

Other science-related issues and initiatives at Health Canada include the establishment of a reference group tasked to develop a department-wide Health and Environment Research and Science Agenda. The output of the forum, sponsored by CIHR, Health Canada and Environment Canada, will aid in the development of a research funding agreement (RFA) with CIHR.

Other developments include Health Canada's discovery of a possible route for the formation of acrylamide in baked or fried foods. This discovery could potentially have an impact on our understanding of basic food in all diets. The Department has also announced Health Canada's Scientist Emeritus Policy.

The Chief Scientist also reminded SAB members about the Health Canada Health Research Forum, where over 200 papers will be presented across all disciplines. The SAB Chair, Judith Hall, will be the keynote speaker.

The job for the OCS is to create a rich environment for science. Health Canada has to tell its story in a compelling way and to champion the use of science in decision-making.

Discussion included the following points:

- The lack of social science mentors for the PDF program may be a reflection of several problems, including the nature of work social scientists do within the department.
- Lab accreditation is a difficult project, given the numbers of, and size of, labs in Health Canada.

Action items:

- *Board members asked for and will receive a list of REB membership.*
- *The Chief Scientist will provide members with a listing of laboratories and what they do.*
- *The Chief Scientist will provide members with an update of the database.*

4. Approval of February Meeting Record (Dr. Judith Hall, Chair)

The meeting record was approved with changes provided by the Chair.

5. West Nile Virus: Surveillance Activities in Canada (Dr. Paul Sockett, Dr. Peter Buck, Dr. Harvey Artsob (Winnipeg))

Health Canada has been proactive in responding to the emergence of the West Nile Virus in North America. Dr. Paul Sockett and Dr. Harvey Artsob are co-chairs of the National Steering Committee, which includes key partners in disease control from provincial and territorial health departments and non-government agencies.

West Nile Virus is a mosquito-transmitted virus. Previous outbreaks have occurred in Africa, Europe and Asia. It was first detected in North America in 1999 in the New York City area. The first detected birds and mosquitoes in Canada were in Ontario in August 2001.

As of September 20, 2002, there were 26 probable and confirmed human cases in Canada and two human deaths.

To this point, the National Microbiology Laboratory in Winnipeg has carried the entire burden of testing. As the virus spreads, it makes sense to spread testing capabilities and ensure quicker diagnosis of virus.

Discussion included the following points:

- Communications to this point have been somewhat confusing. West Nile has been explained as both “rare” and “widespread” as the spread of this virus across North America has been documented. Communications need to be careful on this issue.
- The evolution of the spread of this virus in North America has led to a greater understanding of the disease.
- Health Canada’s response provides a model for dealing with this type of disease and keeping the public informed.
- This virus may have an impact on blood screening and testing.
- Prevention has been well-communicated in terms of using personal protective measures (e.g., repellents), however, the use of pesticides by area spraying introduces further issues about the acceptance and efficacy of this approach.

6. Maternity Experiences Survey (Dr. Catherine McCourt, Dr. Beverly Chalmers)

The Maternity Experiences Survey is a project of the Canadian Perinatal Surveillance System (CPSS), which is managed by Health Canada with the guidance and active participation of a national steering committee. The steering committee has three study groups, one of which is the Maternity Experiences Study Group.

This is the first national survey of its kind in Canada. It is designed to assess the knowledge, practices and experiences of Canadian women in pregnancy, birth and new motherhood. Statistics Canada has been contracted to do the data collection for the survey.

Discussion included the following points:

- The study group is an interesting mechanism to use in such work. Key national organizations and stakeholders are involved at an early point which aids in obtaining expert advice.
- It is the intention that the data set will be available to anyone who requests it, as a “public use file” of Statistics Canada.
- The survey will be reflection of current behaviour.
- There are some questions about methodology. If a primary objective is to assess someone’s knowledge, there must be some standards of knowledge the group expects.
- Most questions will be quantitative, with one or two open-ended ones.
- There are three target groups of particular concern: teenage mothers, recent immigrants and refugees, and Aboriginal mothers. The first two groups will be over-sampled. The CPSS aims to explore with the National Aboriginal Health Organization options for a customized survey(s) of First Nations, Inuit and Metis women.
- One-time data sets are interesting and helpful. But if you are trying to effect changes over time and monitor those changes, you must follow up with repeat surveys.
- If the question is “who pays?” for these kinds of surveys, Health Canada must think creatively. This is potentially an area for the provinces, or CIHR.
- Abuse questions must be addressed carefully, so as not to cause a problem for the women.
- The federal role of surveillance must be kept clear. This appears to be a user-satisfaction project under the umbrella of surveillance. It was noted that the survey will assess behaviours as well as health services, both of which are important determinants of health.
- One of the interesting aspects of the results will be to pose questions that other researchers will then be able to follow up on.
- The expectation that new mothers will be able to give researchers 90 minutes of their time may be false. The pilot study may help answer this question.
- The CPSS should provide results of the survey to mothers. They may also have constructive criticisms to offer.

7. **Food Nutritional Surveillance** - *Mary Bush, Health Products and Foods Branch (HPFB)*

The need for data related to nutritional status and diet has reached a critical stage in Canada. It has been three decades since a national population-based survey collected food consumption data from Canadians.

The cultural context has also changed in 30 years - the foods eaten today were not on the market in the 1970s. There is a lack of data on children, the elderly, First Nations and Inuit.

Discussion included the following points:

- \$16 million would be needed to do the complete Canadian Community Health Survey (CCHS) cycle 2.2 Nutrition focus.
- While government remains interested in partnerships, Health Canada can leverage its capacity by partnering with academia, provinces and the private sector. A caution should be

exercised when and if involving the private sector, especially the food industry, who may have other ideas for the collection and use of data from the study. Trusting Health Canada's regulatory policy was reinforced as part of this discussion.

- In terms of comparing data, are there questions from the 1972 Nutrition Canada survey that could be brought back for comparison purposes? Important to the analysis would be why people made the food choices they did.
- Nutrition supplements, organic products and genetically modified foods are all important today in terms of what Canadians eat.
- Aboriginals on-reserve are not included in the CCHS, but Office of Nutrition Policy and Promotion (ONPP) has established a partnership with First Nations and Inuit Health Branch to support its surveillance activities and advocate for inclusion in future cycles.
- Anthropometric measurements of measured weight and abdominal girth are also important indicators of health risks related to weight.

7. **Migration Health** (*Dr. Ron St. John Health Canada, Dr. Brian Gushulak, Citizenship and Immigration Canada*)

The arrival of immigrants and other persons from abroad is changing the demographics of Canada and brings with it new health implications. Migration of health is increasingly a health determinant.

Health policy is usually designed for a homogenous population. Changing demographics of 10 per cent every decade means policy needs to change as population changes. Health care professionals are not prepared for previously geographically isolated illness and disease.

Discussion included the following points:

- Most immigrants go to Canadian cities. This has an impact on the health services needing to be offered.
- Immigrants or refugees need to know how to access health care, need coverage or funds to cover health care until they receive a provincial health care card.
- Migration health issues range from workplace safety issues to pediatric care.
- There will be an increase in certain ethnic groups having inheritable diseases. Toronto is now a Centre of Excellence for sickle cell anaemia.
- Rare diseases are no longer rare. Health care professionals must be trained to treat diseases they haven't seen in the past.
- The Canadian missionary/tourist going back and forth from China could be at the same health risk as the Chinese immigrant.
- When people think of global health, researchers think of third world countries. The research agenda has not thought of mobility as a health determinant.

Day 2 - Wednesday, September 25, 2002

9. Draft Framework for Science (Tammy Davies, Office of the Chief Scientist)

The OCS was asked by the Deputy Minister and the Business Line Assistant Deputy Minister (ADM) Committee to develop a Framework to better understand the scope of Departmental science activities and to present a credible case for additional resources in cases where current activities do not meet requirements.

The overall objective of the Framework is to ensure Health Canada performs, and has access to, critically important science needed to fulfill its mandate and contribute to the government's overarching priorities.

The five principles for effective science, which establish the characteristics of the science performed and funded by Health Canada, are: alignment, stewardship, linkage, excellence and innovation.

Discussion included the following points:

- This model does not yet exist in any other department, although the OCS has been able to benefit from the experiences of Environment Canada's attempt to inventory their research science.
- It will be important to involve the rank and file scientists in this process.
- It is also important to have buy-in at the highest levels. The Deputy Minister must be involved in this effort.
- Evaluation remains critical to judging the success or failure. There are no indicators yet which would show the impact on policy, clinical practice, or research.
- If done well, the process will be inclusive and will give guidance on resources and how decisions are made.

10. Communications: Overview of Two Strategies - (Ms. Sheila Watkins, Director General, Communications.)

Ms. Sheila Watkins gave the Board an overview of the Health Canada Communications Strategy, sharing with the Board public opinion results in terms of perception on performance and image.

The objectives of the Communications Strategy are: to communicate the Ministerial/DM priorities effectively and to strengthen the brand of the department both internally and externally. The emphasis will be on health, rather than health care.

Discussion included the following points:

- It is important to make sure you have indicators for success in this project.
- Health Canada may be reading the public opinion poll too optimistically. A 53 per cent

rating for trustworthiness, for example, is not a good rating. If half of the Canadian public doesn't know what Health Canada is or what Health Canada does, that is not a success. It is not acceptable that some scientists within Health Canada are not comfortable communicating with the public. That is part of the responsibility and obligation as a civil servant.

11. Update on Federal Science eLibrary (Ms. Merle McConnell, HPFB)

The eLibrary is a model of partnerships between five federal government departments, as well as the National Research Council. At the moment, each library within departments negotiates licenses for e-journal access individually and the number of e-journals available varies from one department to another.

The proposed Federal Science eLibrary would provide a seamless and equitable access to all federal science and technology researchers and is modelled on a similar project in Canadian universities. It requires an annual investment of \$10 million per year, for a total of \$40 million over 4 years, as well as sustained funding. The savings resulting from more effective use of researchers' time are potentially \$96 million over the four-year period.

12. Healthy Living Initiative - (Mr. Scott Broughton, ADM, Population and Public Health Branch)

A great deal of evidence exists on the relationship between health determinants, risk factors and diseases. The Healthy Living Initiative attempts to develop strategies to deal with a wide range of health issues: poor nutrition, physical inactivity, unhealthy weights, smoking, mental health, infectious diseases and environmental risks.

There is significant progress on the Federal/Provincial/Territorial front, with a Healthy Living symposium being called for early 2003. Ministers at all levels recognize this issue as important.

A great deal of evidence exists on the relationship between health determinants, risk factors and diseases. Health promotion and illness prevention activities attempt to develop long-term strategies to address risk factors associated with a wide range of health issues: poor nutrition, physical inactivity, unhealthy weights, smoking, mental health, infectious diseases and environmental risks. The announcement by FPT Ministers of Health of a National Symposium on Healthy Living is an important next step for advancing promotion and prevention activities.

Discussion included the following points:

- Don't reinvent the wheel. There are previous studies and federal initiatives dating back from the 1970s on healthy living.

- The health issues listed ignore the evidence surrounding gender and gender-based health issues.
- It is easy to blame people for not making healthy choices. As a society, we have to ensure easy and safe access to those healthy choices.
- Those people working in prevention and promotion need to ensure this window of opportunity for federal and provincial support is not missed.
- This program seems to be directed at white, middle-class society. A long-term strategy, to be successful, must also be directed at sub-populations.
- A settings approach, through schools, workplaces and communities, may be the way this initiative can gain some measure of success.
- A settings approach may allow people to make choices within the context of their own support systems.
- Communication is the key. It is imperative that the choice of words used to communicate the message is clear and non-accusatory, so that people are not blamed for their choices.
- There is evidence to support a settings approach.
- The focus on health is more than just an absence of disease.

13. CIHR - Institute of Gender and Health (Dr. Miriam Stewart, Scientific Director)

Research priorities for this Institute are:

- Access and Equity for Vulnerable Populations
- Promoting Health in Context of Chronic Conditions and Disabilities
- Gender and Health Across the Lifespan
- Promoting Positive Health Behaviours
- Gender and Environment

Funding contributions include surrounding issues of access, equity, violence, cardiovascular issues and chronic conditions and disabilities.

There are common interests between this Institute's research priorities and Health Canada Themes, such as the link between IGH's Access and Equity for Vulnerable Populations and Health Canada's Health and Social Equity, Diversity and Health Services Access.

Discussion included the following points:

- An Institute based on Gender and Health has had an impact that an advisory board working in the same areas would not have had.
- Gender and Health are on the top of health agendas across the country.
- This institute presents a unique opportunity that doesn't exist in other parts of the world.
- At the outset, research priorities presented the collaborative and partnership activities between the Institute and Health Canada.
- The Office of the Chief Scientist has funded programs to form partnerships and building capacity in this area.

14. Closing Remarks - (Dr. Judith Hall)

The Chair reminded Science Advisory Board members of the Health Canada Research Forum to be held in November and invited them to attend.

The Chair asked members for additional comments on orientation procedures for new members, noting there had been a suggestion for a “buddy” system.

The Guidance Document being prepared by the consultant should be ready for circulation soon and will be circulated to members for comment.