Summary of Discussion
Science Advisory Board Meeting

March 29-30, 2005

Participants

Science Advisory Board Members

Linda Lusby (Vice Chair, A/Chair)
Keith Bailey
Renaldo Battista
Mark Goldberg
Arminée Kazanjian
Andreas Laupacis
Chris Loomis
Renée Lyons
Kathryn O'Hara (March 29)
David Roy
Jacques Simard
Dixie Snider
Stanley Vollant (March 30)

Ex Officio Members

Morris Rosenberg
Hélène Gosselin
Chantale Cousineau-Mahoney
Karen Dodds
Pierre-Gerlier Forest
Susan Fletcher
Diane Gorman
Mostafa Askari (for Marcel Nouvet)
Ian Potter

Secretariat

Susan Tessier

Regrets

Lorne Babiuk
Robert Brunham
Alan Bernstein
Ian Shugart

Boardroom 0115C, Brooke Claxton Building
Tunney's Pasture, Ottawa

Tuesday March 29, 2005

Linda Lusby, Board Vice and Acting Chair, welcomed current and new Board members. There was a roundtable of introductions.

Greetings from the Minister of Health

Gordon Taylor Lee, Director of Policy in the Minister's Office, welcomed the Board on behalf of Ujjal Dosanjh and conveyed his regrets that he was unable to attend.

Vice Chair's Report

Linda reported on her attendance at a federal Science and Technology (S&T) Forum in January called "Moving from Collaboration to Integration". Working together on the cross cutting Issues and developing a national strategy for science is an important area for Science Advisory Board (SAB) contribution. There is a real desire of staff from different departments to work together on multi-disciplinary issues and overcome difficulties with organizational structure and the "silo" mentality. SAB direction and input seems desirable to identify key areas for cooperation.

As Health Canada's representative to the Council of Science and Technology Advisors (CSTA), Linda attended their meeting in January and will be at their next meeting April 7, 2005. The Council is composed mainly of Chairs from SABs as well as the National Science Advisor, Art Carty. The new project the CSTA is embarking on is entitled "Management of Science and Technology in the 21st Century."

SAB had a teleconference on January 24, 2005 to discuss the creation of National Collaborating Centres with the Chief Public Health Officer (CPHO) and Public Health Agency of Canada (PHAC). This worked well, showing that a single issue can be effectively handled through teleconference.

Update of the Office of the Chief Scientist

Pierre-Gerlier Forest, Chief Scientist Health Canada

A process is in place to staff the position of Chief Scientist on a permanent basis. Interviews are ongoing and it is expected that the new Chief Scientist will be in place for the next SAB meeting.

The next Health Canada Science Forum on Health Research will take place on October 24-25, 2005 in Ottawa. The Forum Chair is Pierre Charest, Director General of the Biologics and Genetic Therapies Directorate of the Health Products and Foods Branch. It is hoped that scientists from other countries will attend to exchange information, as did the delegation from Russia last year.

As a result of the Leaders' Forum held in Ottawa in fall 2004, the Chief Scientist has led a Working Group with Health Canada representatives, partners from the Forum and Statistics Canada to improve the approach taken by Statistics Canada regarding categories and sources of health research information. The Office of the Chief Scientist (OCS) is developing a discussion paper on "What is Health Research" intended to support better awareness of health research trends and the public investments in and benefits from health research.

Health Canada has appointed its first Scientist Emeritus as a way for senior scientists to mentor younger scientists in their translation of science into policy. Under the joint leadership of OCS and Communications, a new working group was set up to develop a departmental policy on publications. A background document on the "Integration of Social Sciences and Humanities Research in Health Policy Development" is being prepared to help the department have a better picture of the training and integration of its social sciences staff. The OCS has led a policy initiative to assist in providing the Deputy Minister with advice on short term pressing issues. Recently, a workshop on drug safety was quickly assembled from known expert networks. The SAB will have a role to play building these networks.

The Research Ethics Board Secretariat has struck a Memorandum of Understanding with the Public Health Agency of Canada to provide ethical review of the Agency's research involving humans for the upcoming fiscal year 2005-06.

The Board supported the efforts of the OCS to integrate science perspectives into policy advice for the Minister. Relationships with players in the health portfolio and other departments must be fostered and this is seen as a key role for the Chief Scientist. The health-related National Centres of Excellence are good models for connection and integration across research sectors.

Indigenous Health Research

Ian Potter, Assistant Deputy Minister, First Nations and Inuit Health Branch (FNIHB)

Laura Commanda, Assistant Director Institute of Aboriginal People's Health at the Canadian Institutes of Health Research (CIHR)

An overview of FNIHB, CIHR's Institute of Aboriginal People's Health and the US/Canada Indigenous People' Health Research Roundtable was given. The Board was asked to provide their perspectives on research priorities for a joint US-Canada research agenda and potential partnership opportunities and mechanisms to act on the recommendations emerging from the Roundtable. It is evident that Aboriginal people want to participate in research on indigenous health. There are issues around research ethics; local control over the research agenda, participants and process; ownership and access control of research data; desire for results to be owned by aboriginal people and used for their purposes; and misuse of research data on Aboriginal people.

Discussion

The Board referred to various models which could provide valuable lessons on developing agreements with research participants to ensure that cultural sensitivities are understood and data ownership issues are addressed. It was agreed that research priorities should come from the community and benefit the health of the population studied. Communities seek ownership of their research results to avoid being estranged by misuse of that health information. At the same time, some Board members were uncomfortable with the feasibility of "suppression" of publicly funded research results.

The issue of generalization was discussed in terms of how it relates to both aboriginal health and health issues in other culturally defined communities. Multicultural health research that helps build capacity can benefit life stage, gender related and disease specific health issues and should be investigated in terms of relevance to aboriginal health research.

The Board felt that more needs to be known about Health Canada's role and relationship with CIHR regarding the indigenous health research agenda and what infrastructure will support the work that needs to be done

<u>Marijuana Research Program</u>

Suzanne Desjardins, Director Office of Research and Surveillance, Healthy Environment and Consumer Safety Branch (HECSB)
Richard Viau, Acting Director General Drug Strategy and Controlled Substances Program, HECSB

Background materials were provided to inform about why and how the current legislation on marijuana for medical purposes was put in place and inform on the scope and objectives of the Medical Marijuana Research Program (MMRP). The presenters

provided an update on progress for the MMRP. Board members' perspective was sought on the approach and considerations for the renewal of the October 4, 2005MMRP and a new partnership arrangement with CIHR. Comments were invited regarding: How Health Canada can sustain longer-term grant proposals in a five year program, alternative grant partnership programs, other ways of funding research without compromising excellence but providing required information about the use of medical marijuana.

Discussion

Despite the repeated submissions of some proposals, with updates, CIHR has not approved research studies; this has been frustrating. Problems with receiving proposals that meet approval criteria include research teams lacking statistical expertise, medical concerns regarding studying a smoked product, conflicting recommendations and difficulties with blinding and dosing. Health Canada relies on good scientific evidence on efficacy and safety so that it can supply quality marijuana on compassionate grounds to patients who demonstrate a medical necessity, as ordered by the courts. Applicants are supported by physicians who would feel more comfortable with scientifically supported evidence, rather than anecdotal information, to help them treat their patients. It was clarified that the 7.5 million dollars for this program is seed money, not developmental funds, which it is hoped will stimulate interest within industry to develop a cannabis-based non-smoked product. It is difficult for scientists to accept the process of having a therapeutic product forcibly made available by court order and subsequently having to establish its safety and efficacy. Health Canada was encouraged to be supportive of researchers who are coming to the department with clinical trial proposals.

How to Achieve Transparency in Clinical Trials

Siddika Mithani, Associate Director General Therapeutic Products Directorate, Health Product and Foods Branch (HPFB)

The interest in clinical trial transparency arises because 1) negative trials are less likely to be published than positive ones, 2) some trial publications report "primary outcomes" that were not identified as such in the original protocols, 3) sometimes multiple outcomes are measured in a clinical trial, and those that are positively affected by the therapy are preferentially reported and 4) patients who enter trials assume that the information will be used for the public good. Registries would help improve transparency by increasing awareness of the existence of trials and publication of trial protocols, trial progress and results.

Although clinical trial registries exist, there is no single comprehensive database that contains a list of registries or trials. At this point in time, Canada's Research-Based

Pharmaceutical Companies (Rx&D) have stated that they support the implementation of a registry and disclosure of summary results, positive or negative, one year after approval of a drug in any country. This position affords Health Canada an opportunity to provide a leadership role in a national discussion with stakeholders about the need for a registry and disclosure of trial results. SAB input is sought on the approach to identifying information required in a registry and expectations regarding disclosure of clinical trial results.

Discussion:

The discussion included consideration of the need for a registry. An important reason is to allow clinicians, policy makers and regulators to be aware of the existence of a trial, and thus minimize the likelihood of publication bias (preferential publication of positive trial results). A registry would be a useful resource for the public, journalists and Research Ethics Boards (REBs).

Most randomized trials are of short duration, compare an active drug to a placebo, are conducted in highly selected patients, and involve expert clinicians. Therefore, they may give a misleading impression of the "real world" safety and effectiveness of drugs.

Registry content was explored. It was felt that initially the registry should be simple, only containing randomized controlled trials, so it can be established quickly. It was suggested that it should include the name of the drug, trial name, sample size, comparator drug, timelines, contact information of the principal investigator, and registry of the trial protocol. The actual results of the trial could be added later, although it was recognized that this would be a complex process which could be subject to mis-interpretation. There was a preference to include drugs, biological agents and medical devices.

The real-world safety and effectiveness of drugs can be evaluated using a combination of administrative databases, primary data collection and adverse event reporting. This is not currently done in a systematic way in Canada.

Health Canada could play a leadership role in bringing stakeholders together to determine the structure and implementation of the registry. Stakeholders can best contribute by providing input on how to implement such a registry. The ultimate goal is one international registry, but a national registry is a good first step. Planning should ensure that the Canadian registry can eventually be combined with international efforts. This could be done through the mandatory REB approval stage, provided that trial registration does not add to the work of already over-burdened REBs.

Quality Assurance in Genetic Testing

Lynn Mainland, Manager Human Genetics Policy Health Policy Branch (HPB)
Michael Vandergrift, Director of the Health Sciences Policy Division HPB

The Organization for Economic Cooperation and Development (OECD) has been working since 2003 to develop a guidance framework for quality assurance in molecular genetic testing (MGT). Health Canada is an active participant in OECD work in this area and has also explored quality assurance issues domestically through a Federal-Provincial-Territorial (F/P/T) Task Group. Health Canada would like to solicit the Board's views on: whether and in what way OECD guidance could meaningfully improve the quality of MGT in Canada; how useful international guidance documents are for ensuring and/or improving laboratory quality; which areas in quality assurance should be a priority for Canada; and what domestic linkages should be forged to facilitate Canada's work in this area at the OECD.

Discussion

The discussion of the SAB following the presentation focused on Canada's involvement in international work as well as continued emphasis on national priorities. Members expressed great concern that the work of the F/P/T task group on Genetics and Health had been discontinued. In terms of international cooperation, several other venues for existing work were mentioned and it was agreed that HC must keep abreast of and attempt to link with others that are deemed relevant to the needs in Canada. It was agreed that international standards can be most useful as a guideline but local buy-in is still essential to make them operable in specific locations. Concern was also expressed at the potential for imposing a western, developed country cultural approach in international efforts, at the expense of developing countries.

Discussion also encompassed many of the legal social and ethical issues that can and do arise with MGT. Prenatal testing necessitates the availability of qualified counsellors and decisions must be made regarding the use of tests which predict susceptibility to complex diseases for which little additional information is available at the time of the test.

The Board concluded that this issue is a very important one for Canada and should form part of the national political agenda. This would be facilitated through the aforementioned F/P/T Task Force. Canada could assume a position as world leader in the area but that position is contingent upon appropriate networks at the national and international level. The availability of qualified professionals for work in this area was also seen as an urgent matter and the Minister should be advised to develop a strategy for meeting this need. Finally, the Board summarized that we are at a critical point in

time whereby it is urgent that we recognize the differences between types of genetic tests (predictive versus diagnostic) and discriminate along a spectrum of health impact.

Wednesday, March 30

Deputy and Associate Deputy Ministers' Address

Morris Rosenberg, Deputy Minister, Health Canada
Hélène Gosselin, Associate Deputy Minister, Health Canada

The Deputy Minister (DM) welcomed the five new SAB members - Renaldo Battista, Arminee Kazanjian, Andreas Laupacis, Renee Lyons and Jaques Simard - and thanked them for agreeing to sit on the Board. He observed his and the Associate Deputy Minister's (ADM) first opportunity to address the SAB, as they both arrived at Health Canada in December 2004. They are interested to learn how they can best be useful to the Board.

The Deputies jointly outlined the broad priorities for health and the activities and investments being put forward to support them. The priorities include: 1) Building a stronger, more effective health care system for Canadians, 2) Investing in research, innovation and enabling technologies, 3) Addressing common issues that affect the environment and human health, 4) Improving Aboriginal health 5) Strengthening Canada's global role, 6) Preparing for a pandemic.

There are challenges which impact the department's environment and affect the achievement of these priorities. Decision-making in a minority government situation is more delicate and, at times things move more slowly. Democratic reform has empowered individual Members of Parliament and has led to a higher degree of committee involvement in the consideration of new pieces of business. Thus, it will be important to clearly articulate the purpose of new legislation, what the legislation is intended to solve and why this is the best means. As well, accountability and transparency have reached a new level of importance and permeate all activities. While expert opinion is respected and valued, attention is being paid to the public's demand for greater input and more information on how decisions are being made. A final challenge is the growing tendency for health and social policy issues to become legal issues and to increasingly end up before the courts.

The Deputies concluded by stating that they believe it is important to work strategically with the Board. SAB members were invited by the Board to provide input on how the department can make the best use of their advice, what items should be on the agenda and pose questions.

Discussion

In view of transformations in government regarding democratic reform, the DM anticipates the Board will be involved in the efforts to integrate science across the Government and will participate in a multi-disciplinary approach to problem solving. The Board should give the department its best scientific advice which is in turn added to the internal, sometimes political advice, and used to make the best decision possible. Regarding the link between science and policy making, given the increased permeability among science communities, Health Canada should access the best science that is available whether it is in government, the research community or the knowledge transfer area and be open to receiving external advice.

SAB Task Group Report

The SAB Vice chair gave an overview of the activities and outputs of the Task Group. SAB members were asked to review the report and its recommendations and provide comments. The Task Group will reconvene to consider feedback and finalize the response to the Institute on Governance recommendations.

Cells, Tissues and Organs

Cathy Parker, Biologics and Genetic Therapies Directorate, HPFB

A new regulatory framework is being proposed under the *Food and Drugs Act (F&DA)* to regulate all establishments and individuals in Canada that handle and/or process human cells, tissues and organs (CTO) for transplantation. These new regulations will address safety in the manufacture and use of these products and will be introduced using a two-phased approach.

Phase 1 consists of safety regulations (based on National Standards, funded by Health Canada and published by Canadian Standards Association in 2003), an establishment registration scheme and mandatory reporting of infectious disease transmission via transplantation. Health Canada is responsible for delivering a national compliance and enforcement program for all health products as well as for conducting surveillance of adverse events (AE). In developing Phase II of the new regulatory framework for CTO, the most effective risk-based mechanisms for meeting Health Canada's responsibilities should be identified. This can best be done after consulting with stakeholder groups on the options being considered for adverse event surveillance and compliance monitoring and enforcement. The Board's input on the options for compliance and enforcement and AE reporting strategies is sought.

Discussion

The SAB expressed concern regarding the reporting of AEs by the source establishment, who have a vested interest in the outcome of the investigation which could be perceived as a conflict of interest which could bias their reporting. This may be particularly acute for foreign tissue suppliers who are subject to another country's laws and regulations. The SAB suggested that a direct electronic reporting to Health Canada via a website from the health care professional may be an appropriate means to ensure immediate reporting and follow-up, although the frequency with which clinicians will use this system is not known. This could also be used as a means to report simultaneously to the source establishment.

It was noted that there is a lack of trust in industry and government regarding their commitment and ability to manage the AE reporting system. There are also safety concerns about transmission of genetic disorders, malignancies and susceptibilities. Research could be done regarding systems to assist health care professionals in providing accurate information in a timely fashion to Health Canada.

Post-Market Safety and Therapeutic Effectiveness Assessments of Health Products

Vicky Hogan & Duc Vu, Marketed Health Products Directorate, HPFB

Information presented to the Board included a summary of post-market science domains, an overview of the post-market science domains, levels of validity of evidence used in post-market activities, current gaps in drug safety and effectiveness data, and strategies to increase scientific rigour of post-market activities.

The advice of the Board was sought on the following questions:

1. What types of scientific evidence are considered most useful in a post-market setting?
2. What strategies should be employed to address the current gaps in drug safety and effectiveness knowledge?
3. What strategies and tools should be employed to increase scientific rigour in post-market decision making?

Discussion

There has been a long standing need for improving Canada's ability to: 1) assess the effectiveness and safety of prescription drugs once they are released onto the market; and 2) do this in an efficient and scientifically rigorous way. These objectives cannot be accomplished by "tinkering" with current policies and procedures. Active surveillance is

of limited value because of uncertainty about what to look for, and confounding factors such as patients seeing multiple physicians for different medical problems, each requiring different medications. While a national drug database would address some of these problems, this is unlikely to be achieved anytime soon. Drug effectiveness and safety data are being collected in provincial electronic drug databases which are linkable to relevant health outcome data. These databases exist or are being established in virtually every province, allowing connection of drug exposure data on a national scale. The scientific gaps identified by Health Canada in the post-market evaluation of drugs are also shared by those responsible for common drug reviews for listing on provincial formularies. These common needs can be served by existing infrastructure and available expertise.

Health Information Privacy and Confidentiality Framework

Ross Hodgins, Director Privacy Policy Division, Information, Analysis and Connectivity Branch

The Board was informed on the background to the Pan-Canadian Health information Privacy and Confidentiality Framework, current status, next steps and linkages to the science community. More consistent privacy regimes among jurisdictions will facilitate health care renewal, including the development of electronic health record systems and primary health reform. Issues related to the use of personal health information for research purposes were discussed.

Discussion

The Board acknowledged that in the struggle to assure freedom and security, there is a good tension between the privacy and confidentiality of individuals, families and communities versus social benefits. The Framework should provide for the potential abuse of accessing the increasing network of databanks holding personal, sensitive information. It is hoped that privacy initiatives do not impede the progress of science.

The patchwork of guidance regarding privacy has led to inconsistencies at the practical, administrative levels. SAB members suggested the framework should be applied through research project case studies (epidemiologic, genetic, public health) to assess needs and gaps.

National Collaborating Centres (NCC) Update

Gina Balice, Director General Strategic Policy Directorate, Public Health Agency of Canada (PHAC)

Gina conveyed regrets from the Chief Public Health Officer that he was unable to attend the meeting. She provided an overview of the NCC initiative, goals and outcomes, timelines, current status, relationships and the priority setting process. SAB advice is sought on indicators and priorities for each NCC.

Discussion

Members of the SAB noted with appreciation the return of the PHAC with an update on the NCC project. Concerns raised in the original teleconference discussion regarding the Centers were reiterated and clarification on some points was sought. It should be noted that some members of the SAB are still questioning the need for the NCC and indeed the PHAC.

As reported, the process for establishing the NCCs is moving very slowly and concern was expressed regarding the appropriateness of working through the Ministers of Health as opposed to the public health community. It was also mentioned that the social science community should be involved in the process. Some members of the Board expressed disappointment and concern that they were not invited to provide input into the nomination call for members of the planned Advisory Council.

SAB members continued to express concern about the apparent absence of strategic targets, objectives and measurable outcomes for the NCCs. Several concrete suggestions were given including the use of a “program logic model” detailing activities and relationships, with accountabilities and evaluation built in and agreed upon by involved parties. Measurement of knowledge translation and uptake can come only after concrete issues and defined objectives have been put in place.

It was agreed that if appropriately structured, the linkages and networks that are being created could serve as a national blueprint for connecting health activities between the provincial and federal levels. The Board looks forward to seeing how sub-specialties will be developed and their findings translated across the country

Forward Planning

There is a high level of interest in convening a joint meeting between the Science Advisory Boards of Health Canada, Environment Canada and the Pest Management Regulatory Agency to allow one day discussing common issues of concern. Board members will be canvassed for their availability with the intent to schedule this meeting within the first two weeks of June.

Agenda items for future meetings were proposed: pandemic planning and anti-virals, conditional (probationary) licensing, knowledge translation (include CIHR), continued update on the science conducted within the NCCs and adverse event reporting.