

June 1997

ACTIVITY REPORT

April 1, 1995 to March 31, 1996

1995-1996 ACTIVITY REPORT

Additional information concerning this report or any other report published by the *Conseil d'évaluation des technologies de la santé du Québec* can be obtained by contacting the *Conseil's* office:

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List of official reports of the *Conseil d'évaluation
des technologies de la santé* (as at March 31, 1996)

1995-1996 ACTIVITY REPORT

INTRODUCTION

This report is divided into two main parts and presents the highlights of the activities of the *Conseil d'évaluation des technologies de la santé du Québec* for the year 1995-1996.

The first part gives general information about the *Conseil*, its mandate, method of operation, members and secretariat.

The second part, entitled "The *Conseil's* Activities in 1995-1996", is an account of the *Conseil's* scientific production during this period. In particular, it provides details about the work carried out during the year and about the publications, conferences and seminars that account for the *Conseil's* scientific influence. This part also includes an account of the *Conseil's* dissemination and cooperation activities on the Québec, Canadian and international scenes. Lastly, other information is provided about the *Conseil's* production resources.

1995-1996 ACTIVITY REPORT

The Conseil d'évaluation des technologies de la santé du Québec

The *Conseil d'évaluation des technologies de la santé du Québec* was created by the Government of Québec in order to promote and support health technology assessment. The *Conseil* is made up of independent experts whose role is to advise the Minister of Health and Social Services on the introduction, diffusion and use of technologies in Québec's health-care system. The *Conseil* consists of 12 members.

The *Conseil* was established by order-in-council in January 1988 for a period of four years. This mandate could be extended beyond the initial four-year period if a favourable assessment of the *Conseil's* activities were made. Since a favourable evaluation was given by the firm Price-Waterhouse, a new order-in-council was issued on January 15, 1992, renewing the *Conseil's* mandate without any time restriction. The secretariat provides the administrative, professional and technical support required for the *Conseil's* work.

MANDATE

The *Conseil's* mandate is twofold. The first charge of the mandate is open to all the stakeholders in the health-care system, whether they be the general population, as consumers of health-care services, the care-givers or the managers of health-care services. It consists in:

"Promoting and supporting health technology assessment, disseminating the results of the assessments and encouraging their use in decision making by all stakeholders involved in the diffusion of these technologies."

The second charge of the mandate is specifically geared to the Minister of Health and Social Services, who is responsible for health policy in Québec. It consists in:

"Advising the Minister on matters concerning the introduction, diffusion and use of health care technologies and, to this end, giving advice based on the assessment of their effectiveness, safety and cost, their impact on the health-care system, and their economic, ethical and social implications."

The definition of "health technology" used by the *Conseil* is broad, for it includes not only the instruments, apparatus, medications and procedures used in the delivery of health services, but also those techniques which sustain the infrastructure of health services and their organization".¹

The *Conseil's* role in Québec's health-care system is to produce specialized information on medical technologies and promote a culture of assessment. The specialized information

¹Rapport de la commission d'enquête sur les services de santé et les services sociaux, 1988.

consists of assessments produced at the request of the Minister, of partners in the health network or on the *Conseil's* initiative. These assessments are intended for policy makers and specific stakeholders. The *Conseil* promotes assessment among the general population, health professionals, associations, hospitals, regional boards and other organizations in the health sector, as well as the Ministère de la Santé et des Services sociaux.

METHOD OF OPERATION

The *Conseil's* assembly is responsible for :

1) Defining objectives

- Determining the technologies which should be assessed.
- Determining the matters to be dealt with when examining these technologies.
- Choosing the approach to be used when carrying out these assessments.

2) Ruling on content

- Guaranteeing the scientific rigour, the relevancy and the quality of the work.
- Ratifying the final assessment reports.

3) Disseminating the assessment results

- Approving the strategies for distributing the *Conseil's* reports and other publications.
- Ensuring that policy makers and other stakeholders in the health network use the information in the assessment reports.

The *Conseil* encourages the participation of various outside resource people. This approach enables the *Conseil* to take advantage of considerable expertise and gives it greater flexibility in fulfilling its mandate.

ASSESSMENT PROCEDURE

Studies by the *Conseil d'évaluation des technologies de la santé du Québec* progress through the following steps. The importance of each step will depend on the technology being assessed.

Step 1 - Consultation

In addition to the assessments requested by the Minister of Health and Social Services, the *Conseil* regularly asks health administrators, health professionals and others to suggest potential assessment subjects. The secretariat's research staff informs the *Conseil's* members of any request for a technology assessment by submitting a preliminary analysis of the matter in order to assist them in determining whether it is relevant.

Step 2 - Study selection

The *Conseil* gives priority to subjects which possess certain characteristics, such as:

- a potentially significant impact on health.
- considerable variability in the frequency of use.
- reasonable suspicion that the technology is under- or overutilized.
- the likelihood that the result of an assessment will influence decision making by the government, regional boards, hospitals, health-care professionals or general population.
- the likelihood that an assessment will be relevant for some time.
- the high cost of acquiring and using the technology.

In the case of recent or evolving technologies, the *Conseil* can authorize the preparation of an "information bulletin". This is not a formal assessment but rather a synopsis of the relevant data prepared in response to a specific request.

Step 3 - Preparing a report

After choosing the research topics, the *Conseil's* members decide whether each study will be carried out by the secretariat's research staff, researcher-consultants or by outside experts. A task group consisting of 2 to 4 *Conseil's* members is appointed to oversee the study and the preparation of the report.

Research always requires the exhaustive gathering and critical review or meta-analysis of the relevant scientific literature. Sometimes, gaps in information necessitate the development of models to estimate the key parameters in the epidemiological situation underlying the technology being studied or its use. This

analysis is always backed up or validated by an examination of the situation in Québec, using hospital discharge data (Med-Écho), physician's claims for services data or any other relevant files, and population data. Lastly, the research always culminates in rigorous conclusions or in recommendations.

Step 4 - External reviewers

A preliminary version of the report is submitted to external reviewers, who are chosen for their knowledge and specific expertise. They check the report's methodological and scientific rigour. The task group receives their comments, makes any necessary changes to the report and can, if necessary, resubmit it to the reviewers.

Step 5 - Official approval

Before approval, the *Conseil's* members consult experts to ensure the quality of all the aspects of the report and the external reviewers' evaluations. When fully satisfied with the quality of all the aspects, the *Conseil's* members approve the report.

Step 6 - Distribution

After it is officially approved, the report is sent to the Minister of Health and Social Services so that he or she can read it. The report is made public by the *Conseil* 45 days later and is intended primarily for the policy makers concerned by the subject in question.

The report is also sent to the Canadian Coordinating Office for Health Technology Assessment (CCOHTA), to its members and to other health technology assessment organizations elsewhere in Canada and abroad. The distribution of a report is usually followed by presentations, professional meetings and publications in scientific journals.

THE CONSEIL'S MEMBERS

The *Conseil* consists of a maximum of twelve members, the length of their mandate being two years, with the possibility of renewal. The members are appointed by order-in-council on the recommendation of the Minister of Health and Social Services.

Since the *Conseil's* makeup should reflect the different perspectives on health technology assessment, the members are chosen on the basis of their expertise in their respective fields of competence. The fundamental aspects of evaluating the health benefits and unwanted side effects of medical technologies are represented by clinicians in different medical specialties and researchers in clinical epidemiology. A number of assessments concern technical or nursing aspects, in which case members with expertise in biomedical engineering, biophysics, nursing or other appropriate disciplines provide decisive insight. Lastly, those with expertise in economic, social, bioethical or legal matters help ensure that the assessments are as complete as possible.

As at March 31, 1996, the *Conseil's* members were:

<p>Dr. Renaldo N. Battista, President Epidemiologist McGill University, Montréal</p>	<p>Dr. Jean Joly Specialist in microbiology and epidemiology Hôpital du Saint-Sacrement, Québec</p>
<p>Dr. Martial Bourassa Specialist Montreal Heart Institute</p>	<p>Dr. Denise Leclerc Pharmacist</p>
<p>Mr. Raymond L. Carrier Biophysicist Hôpital Notre-Dame, Montréal</p>	<p>Dr. Jean-Marie Moutquin Epidemiologist Hôpital Saint-François d'Assise, Québec</p>
<p>Dr. Raymonde Chartrand Specialist in nuclear medicine Hôpital Saint-Luc, Montréal</p>	<p>Ms. Aline Lavoie Poirier Nurse Centre hospitalier de l'Université Laval, Québec</p>
<p>Mr. Claude E. Forget Economist</p>	<p>Ms. Suzanne Nootens Lawyer Faculty of Law, Université de Sherbrooke</p>
<p>Mr. Roger Jacob Biomedical engineer Hôpital du Sacré-Coeur, Montréal</p>	<p>Mr. Guy Rocher Sociologist Université de Montréal</p>

SECRETARIAT

The *Conseil* is supported by a secretariat made up of regular staff from the Québec civil service. The staff makes a significant contribution to the preparation of assessment reports and other *Conseil* publications and, generally speaking, provides all the administrative, professional and technical support needed for the *Conseil* to fulfill its mandate. In addition, a research budget enables the *Conseil* to obtain the input of researcher-consultants and contributors in the preparation of different reports and studies.

During the period covered by this report, the secretariat's human resources were:

Regular staff as at March 31:

Mr. Jean-Marie R. Lance
Director of the *Conseil*
Economist

Ms. Arlene Murray
Administrative assistant

Ms. Suzanne Tremblay
Librarian

Ms. Marie-Josée Blais
Mr. Guy Régnier
Research officers

Ms. Joanne Dubois
Executive secretary

Ms. Solange Sabourin
Secretary

Researcher-consultants and contributors:

Dr. Marie-Dominique Beaulieu
Ms. Ingeborg Blancquaert
Dr. Jean-François Boivin
Ms. Louise Bouchard
Dr. James Brophy
Mr. F.- Pierre Dussault
Ms. Line Gariépy

Mr. James Hanley
Mr. Eric Latimer
Ms. Pascale Lehoux
Mr. Adrian Levy
Dr. Maurice McGregor
Mr. George Tombs

During the year, the following people held regular positions for a limited period of time:

Mr. Marco Caron
Ms. Josée Charbonneau

Ms. Diane Mercier
Ms. Irina Tsarevsky

The *Conseil's* Activities in 1995-1996

NEW MEMBERS

During the 1995-1996 year, the *Conseil* welcomed three new members: Dr. Denise Leclerc, pharmacist, until recently dean of the Faculty of Pharmacy, Université de Montréal; Dr. Jean-Marie Moutquin, gynecologist-obstetrician, epidemiologist and researcher at Hôpital Saint-François d'Assise's research centre, Québec; and Mr. Guy Rocher, sociologist and researcher at the Centre de recherche en droit public, Université de Montréal.

THE *CONSEIL'S* REGULAR AND AD HOC MEETINGS

The *Conseil's* members held six regular meetings during the year, namely on May 12, June 29, September 8, October 20 and December 8, 1995 and February 9, 1996. Also, the members of the work groups attended a few additional meetings in order to examine more thoroughly the draft reports prepared by the *Conseil*.

PREPARATION OF A BRIEF

On March 6, 1996, following an official invitation, the *Conseil* came before the Commission parlementaire des affaires sociales within the framework of the commission's mandate to examine the functioning of organizations that have an influence on drug consumption in Québec and to make recommendations aimed at better drug utilization. The invitation stemmed from the fact that the *Conseil* was given the mandate to evaluate expensive, controversial drugs which have a social impact and significant unwanted health effects, especially in the elderly. A summary with further details on the **brief** that was submitted on that occasion is provided in Appendix 1.

PRODUCTION OF REPORTS AND OTHER WORKS

In the following pages, an exhaustive account is given of all of the *Conseil's* projects by stating the objectives of each one and the status as at March 31, 1996. The different assessment report projects - the *Conseil's* main activity - are outlined first. This activity is sometimes preceded by a phase for exploring new areas and determining assessment priorities. This particular activity is therefore discussed as well. In addition, the *Conseil* produces survey and follow-up studies and methodological reports. It also orders exploratory studies to be carried out. Lastly, a list is presented of the different potential subjects that have been brought to the *Conseil's* attention.

Assessment Report Projects

Assessment reports are official *Conseil's* publications. As stipulated in its mandate, they are submitted to the Minister of Health and Social Services in order to advise him or her on the introduction, diffusion and utilization of health technologies. There were a number of projects during the year. The following description gives the objectives of the different projects and the status of each as at March 31, 1996.

Screening for prostate cancer

Objective The main objective is to evaluate the benefits, unwanted health effects and costs associated with the screening of asymptomatic men aged 50 to 70 for prostate cancer. This information is aimed at advising the Minister and his staff as to the usefulness of instituting a formal screening program using, in a first phase, prostate-specific antigen (PSA) tests.

Status of project The project was completed and the assessment report distributed. A synopsis was prepared for wider distribution. A more detailed summary is provided in Appendix 1.

Bone marrow transplantation in Québec: An economic analysis

Objective The objective is to evaluate the costs and cost-effectiveness of bone marrow transplantation for established clinical applications on the basis of data collected in a few hospitals. In addition to transplantation per se, the assessment covers postoperative follow-up, complications and harvesting bone marrow, and compares these results with the best alternative treatment.

Status of project After the external reviewers were consulted, it was determined that this report requires considerable revision. A decision is to be made as to whether it should be published.

Variations in the rates of certain procedures performed in otorhinolaryngology

Objectives Since the *Conseil* had already published, in 1992, a report on the geographical variations in the rates of nine surgical procedures, including tonsillectomy with or without adenoidectomy, the main objective was to determine if the variations observed with respect to this particular procedure were persisting. A second objective was to determine if there were comparable variations for adenoidectomies alone and myringotomies. Lastly, the report examines the link between the frequency of these three surgical procedures and the factors that might influence them.

Status of project The assessment report was completed and was widely distributed. A detailed summary presenting the highlights of this report is provided in Appendix 1.

Revascularization procedures for the treatment of stable angina pectoris

Objectives The purpose of this project is to examine the safety, efficacy, merits, cost and comparative utility of the available revascularization techniques, namely the two conventional procedures, i.e. percutaneous transluminal coronary angioplasty (PTCA) and coronary artery bypass graft (CABG) surgery, and five recent percutaneous angioplasty techniques, namely directional coronary atherectomy, rotational atherectomy, transluminal coronary extraction, laser angioplasty and coronary stent implantation (vascular endoprostheses). This project led to a special collaborative effort with the *Conseil consultatif de pharmacologie (CCP)*, which prepared, at the same time, a monograph on the pharmacologic treatment of stable angina.

Status of project The project was completed and, as part of a special distribution, an abridged version was prepared and, together with the CCP monograph, was sent systematically to all of Québec's physicians and pharmacists. The report per se was distributed selectively to the main stakeholders concerned. A detailed summary of this report is provided in Appendix 1.

The risks of occupational anesthetic gas exposure for the pregnant woman and the fetus

Objective The objective is to examine the animal and epidemiological data on the effects of occupational anesthetic gas exposure on reproduction. The information thus derived should help public-health physicians make decisions concerning the risks incurred by women so exposed and by their fetus.

Status of project The report is ready to be sent to the Minister of Health and Social Services. The distribution of the report, which was scheduled for August, has been delayed until October. A detailed summary of this report is provided in Appendix 1.

The cochlear implant in adults, adolescents and children

Objectives The objectives are to situate the diffusion of cochlear implant technology in its educational, social and cultural context; to describe the state of knowledge regarding the effectiveness, safety, reliability, cost and cost-effectiveness of cochlear implants for both adults, adolescents and children; to assess the status of the technology (experimental, innovative or accepted); and to estimate the number of potential candidates in Québec.

Status of project The version to be read by the external reviewers is nearing completion, with the reading to begin in mid-May 1996.

The risks associated with dental amalgams

Objectives The main objectives of this study are to assess the health risks associated with dental amalgams that contain mercury and to compare amalgam as a restorative material with alternatives that do not contain mercury. The report will describe the current situation and the climate of controversy in Québec and Canada and the legal status of amalgams in Canada, the United States and Europe. Lastly, the analysis will deal specifically with the implications for Québec.

Status of project The external reviewers have begun reading the report.

Excimer laser photorefractive keratectomy for the correction of myopia and astigmatism

Objective The objective of this information bulletin project is to describe excimer laser photorefractive keratectomy technology for the treatment of myopia and astigmatism and to present the current state of knowledge regarding the efficacy, effectiveness (including patient satisfaction) and safety of this technology and its complications and unwanted health effects. The bulletin will describe the context in which this technology is used in Québec and assess its status (experimental, innovative or accepted).

Status of project The *Conseil* has received a technical report on the current state of knowledge regarding the use of the excimer laser in ophthalmology. A draft information bulletin was prepared and was submitted to the external reviewers in mid-June 1996.

The distribution of cardiac catheterization laboratories: An update

Objective Generally speaking, the objective of this report project is to update the first report produced by the *Conseil* on this subject. To this end, the document will estimate the past, present and future use of cardiac catheterization laboratories. More specifically, this will consist in examining the utilization rates, production capacity, waiting lists, geographical accessibility, benefits, risks (including the patient safety aspect), the appropriateness of available and recent procedures, and the future orientations or developments in interventional cardiology.

Status of project The report, which is getting underway, was submitted to the external reviewers in November 1996.

A comparative cost-effectiveness study of treatments by means of hemodialysis and peritoneal dialysis

Objectives The practical objectives of this study are to estimate and compare the costs of treating patients with end-stage renal failure by means of hemodialysis and continuous ambulatory peritoneal dialysis, and the impact of these two modalities on mortality, morbidity and quality of life. The objective is to make these economic and qualitative data available to the clinicians concerned and to administrators so that they might better understand the respective contributions of these two therapeutic procedures and the adequacy of the resources allotted to them.

Status of project The collecting of the basic data is nearing completion, and the analysis is beginning. The technical report was submitted to the *Conseil* in October 1996.

Pre-employment and periodic examinations

Objective The purpose of this study is to assess the appropriateness of pre-employment examinations and periodic annual examinations performed in accordance with Québec regulations, by examining the efficacy of the different diagnostic tests and procedures involved, according to the different sectors of economic activity affected by these regulations and their application.

Status of project A preliminary version is nearing completion. However, the relevancy of continuing this project is presently being reassessed, given the Ministry's intention to abolish the regulations in question in the very near future.

The effectiveness and cost-effectiveness of colorectal cancer screening

Objective The purpose of this project is to assess the appropriateness of setting up a screening program for the early detection and early treatment of colorectal cancer in the province of Québec. To this end, the study will evaluate the cost and efficacy of such a program, with special attention to be given to the different diagnostic approaches (barium enema, sigmoidoscopy, fecal occult blood test, colonoscopy and possibly genetic screening).

Status of project The project has just begun. A first version of the report is scheduled for the end of the 1996-1997 year.

The benefits of physical exercise for the elderly

Objective The objective here is to assess the efficacy and safety of physical exercise as a means of intervention (prevention or treatment) for different health problems affecting the elderly, such as hypertension, hypercholesterolemia, obesity, diabetes and falls, and to assess the cost-effectiveness the exercise promotion programs concerned.

Status of project The general assessment framework has been defined and the literature review has started. However, other priorities are delaying work on this project, which we will not be able to continue until around the end of 1996-97.

Exploring New Assessment Areas and Identifying Priority Subjects

The *Conseil* also continues to take steps to identify priority assessment subjects in new areas of the vast field of technology. This involves consultations in the health-care sector, summary literature reviews and applying priority-determination criteria. Four areas are thus being explored and are briefly described in this section.

Drugs used by the elderly

Description and objective In the context of a Québec health strategy to rationalize drug use by the elderly, the *Conseil* was instructed to evaluate expensive, controversial drugs that have a social impact and significant unwanted health effects. Given the many implications of this study, the *Conseil* has held several consultations and participated in the meetings of the Strategic Committee for Implementation and Follow-up, under the Ministry's leadership, in order to determine the exact nature of its involvement. The services of a resource person have been retained to develop a framework for exploring assessment areas in pharmacology and identifying the drug assessment priorities, consult key contacts in the field, analyze the main statistics on drug consumption and hospitalizations due to their unwanted health effects or improper use, and suggest the top priorities.

Status of project The different data gathered are presently being analyzed. A preliminary report suggesting priorities was submitted to the *Conseil's* members for consideration in April 1996.

Ambulatory services: Assessment priorities in light of the shift to ambulatory care

Description and objective Given the network's new orientations emphasizing greater use of ambulatory services, in particular, alternatives to hospitalization or, better yet, services dispensed at hospitals on an outpatient basis, the *Conseil* has taken the initiative to quickly set up a project to explore the different assessment topics in this area and identify the priorities. The project is also aimed at creating a methodological framework for evaluating approaches to health care or other technologies used in ambulatory medicine. The project is being carried out mainly by conducting structured interviews with key contacts and by scanning the literature, and will lead to a descriptive report identifying the main assessment priorities.

Status of project The consultation report is nearing completion and will be submitted to the *Conseil's* member's for consideration in April. The final report is available since June 1996.

Genetic screening: From research to the clinic

Description and objective The problems posed by genetic medicine are many and complex, especially when it comes to transferring knowledge to new clinical applications. This is why the *Conseil* has created an in-house research team and set up a multidisciplinary advisory committee of ten experts to determine the priority developments capable of being organized clinically. The planned approach is to

identify the aspects of developments in genetics that should be scrutinized, to define the criteria for governing the evaluation of genetic screening programs and the appropriate research strategies, and to carry out the required assessment.

Status of project The work, which began in October 1995, has led to the selecting of priority subjects according to specific criteria. The first priority subjects chosen are Duchenne muscular dystrophy, myotonic dystrophy (Steinert's disease), tyrosinemia and fragile X syndrome. The preparation of the first monograph began in April 1996.

Mental health interventions and services

Description and objective The *Conseil* has gradually started to determine assessment priorities in an area that it has never dealt with before—mental health. Following a few preliminary consultations in mental health research circles, a more structured process was started in March 1996. The objective is to consult key contacts and scan the literature in this field, so as to propose to the *Conseil's* members a selection of priority subjects in early June 1996.

Status of project A preliminary report proposing different priority subjects was submitted to the *Conseil* in early June 1996.

Survey, Follow-up and Methodological-development Study Projects

Survey and follow-up studies are designed to document, as part of preparing an assessment report, the situation in Québec with regard to the use of a given technology or to assess, in part, the impact of assessment reports that have been distributed. These studies lead to the production of complementary publications, which are usually distributed to a smaller readership. The methodological-development projects are intended to gradually give the *Conseil* tools for improving the assessment methods it uses in its reports.

Results of a Québec hospital survey on the reuse of single-use instruments in laparoscopic surgery

Objectives Following the submission of a technical report in 1994-95 on the reuse of "single-use" instruments in laparoscopic surgery, plans were made, in connection with a possible *Conseil* report on the subject, to gain a better knowledge of the practice in Québec. A survey has therefore been planned. The objectives of the survey are to determine the nature and extent of the practice of reusing so-called "single-use" instruments in this branch of surgery and to document the existence of policies adopted by hospitals on this matter.

Status of project The project has been completed, and the study has been distributed to the main policy makers concerned and to all the directors of professional services and all the heads of sterilization in Québec hospitals. A descriptive summary of this project is provided in Appendix 1.

Routine use of certain diagnostic tests and examinations in hospitals

Objective The *Conseil* has teamed up with the Collège des Médecins du Québec and the Association des hôpitaux du Québec (AHQ) to jointly study the practice of using certain diagnostic tests/examinations whose routine use has been called into question in the medical literature. The AHQ was responsible for the first part of the project and thus for seeing to the operational production and distribution of the final report. The purpose of the first part was to conduct a survey on the use of diagnostic tests/examinations in all of Québec's hospitals.

Status of project The project has been completed and the study distributed to all the policy makers concerned, especially the directors of professional services in Québec hospitals. The *Conseil* has also collaborated on the strategy for communications and distribution to the media. A detailed summary of this project is provided in Appendix 1.

Potential savings in hospital resources through the use of outpatient or home intravenous antibiotic therapy

Objectives The objectives of this project are to identify the range of diseases treated with intravenous antibiotics that could be so treated at home or in hospital outpatient departments, to estimate the number of hospital days that could be saved, and to evaluate the factors that would encourage or hinder such savings.

Status of project The above-mentioned consultation for determining priority assessment subjects in outpatient departments revealed new concerns regarding this project. Consequently, the objectives of this project must be reviewed.

Monitoring the use and impact of the assessments issued by the Conseil

Objective Given that the *Conseil* wishes to maximize its influence and impact, the objective of this project is to develop a system for monitoring the use and impact of its different reports and activities. There are therefore two phases to the project: the creation of a conceptual framework, followed by that of an operational framework for identifying and instituting concrete mechanisms.

Status of project The project has been completed, and two complementary documents have been finalized, one describing the conceptual framework, the other the operational one. These documents are intended mainly for internal use and are already guiding the gradual implementation of mechanisms for monitoring the use and assessing the impact of the *Conseil's* publications. Further details are provided in a summary in Appendix 1.

Monte Carlo sensitivity analysis: Application to glaucoma screening

Objective The objective of this methodological-development project is to create a more refined approach to performing the sensitivity analysis required in many technology assessments, taking into account, in particular, the uncertainty affecting the main parameters used. This Monte Carlo-based approach will enable the *Conseil* to more accurately assess and quantify the uncertainty of the cost-effectiveness and cost-benefit ratios of each strategy examined. As a concrete application, screening for open-angle glaucoma was chosen for this project, as it was recently the subject of a *Conseil* report that included a sensitivity analysis using the conventional method.

Status of project The methodological report is nearing completion and was submitted to the *Conseil's* members for their perusal in June 1996.

Exploratory Studies

The chief purpose of exploratory studies is to gather basic data or perform a preliminary analysis of the state of knowledge regarding a given technology in order to advise the *Conseil* on the need to carry out a rigorous assessment and to help it promote or defend a report that has reached the distribution stage.

Abdominal ultrasonography: Use, indications and costs

Objective The objective of this study is to document the observed increase in the use of abdominal ultrasonography in Québec, to specify the current indications, to

examine the diagnostic effectiveness of abdominal ultrasonography and lastly to examine the possibility of determining its cost-effectiveness.

Status of project After the preliminary study was submitted, the *Conseil* decided not to pursue the assessment of this technology any further.

A critical literature review concerning the efficacy of acupuncture in the treatment of chronic back pain

Objectives In an effort to cover the entire range of health technologies, the *Conseil* wishes to explore the therapeutic approaches used as alternatives to traditional medicine and has chosen to examine acupuncture first, the objective being to identify innovative approaches for assessing its efficacy. In concrete terms, the treatment of chronic back pain was chosen as a test of demonstration in this brief study, which included a critical review of the pertinent literature. The review was done on the basis of biomedical standards in order to determine if they are properly applied and are appropriate to the experimental study of the efficacy of acupuncture. Another objective was to identify the epistemological problems associated with this assessment by using, as a comparison, studies evaluating nonsteroidal antiinflammatories for the relief of chronic back pain. Lastly, the study initiated some discussion about the cost-effectiveness of acupuncture.

State of project The exploratory study has been completed. It concludes that there are still many epistemological and methodological problems in evaluating the efficacy of acupuncture. The *Conseil* has therefore decided not to pursue this project any further for the time being.

Evaluation of the quality of homeopathic research from a methodological standpoint

Objective The objective of this brief study is to make an informed judgment of the effectiveness of homeopathy and the value, from a methodological standpoint, of the research published on the subject. The results will serve to either validate the clinical and experimental approach of homeopathy or recommend that further studies with greater methodological rigour be conducted.

Status of project The project has just begun. The technical report was planned to be completed in October 1996.

Potential Assessment Subjects

The *Conseil* has examined the possibility of dealing with a number of other assessment subjects. Work will be done on some of them in the coming year. They are as follows:

- Bone marrow transplantation: An update of a previous *Conseil* report
- A cost-benefit analysis of a pneumococcal vaccination program
- The surgical treatment of morbid obesity
- The notion of risk and hazard
- The reuse of rotational atherectomy devices (Rotablator)
- The recycling of disposable plastic equipment used in clinical laboratories in hospitals
- The risks of occupational radiation exposure
- The analysis of geographical variations in hospital admissions based on DRGs (diagnosis-related groups)

SCIENTIFIC PUBLICATIONS

The *Conseil's* president, members and research staff have published the results of their work in journals and monographs, thus contributing to the expansion of health technology assessment in scientific circles. This activity also helps make the *Conseil* better known internationally and ensure its scientific influence.

Battista RN, Hodge MJ. Setting priorities and selecting topics for clinical practice guidelines. *Can Med Assoc J* 1995;153(9):1233-7.

Battista RN, Hodge MJ, Vineis P. Medicine, practice and guidelines: the uneasy juncture of science and art. *J Clin Epidemiol* 1995;48(7):875-80.

Battista RN. Towards a paradigm for technology assessment. In: Peckham M., Smith R. (eds). *Scientific basis of health services*. London: British Medical Journal Publishing Group, 1996:11-8.

Carter AO, Battista RN, Hodge MJ et al. Report on activities and attitudes of organizations active in the clinical practice guidelines field. *Can Med Assoc J* 1995;153:901-7.

Carter AO, Battista RN, Hodge MJ, Lewis L, Haynes B. Proceedings of the 1994 Canadian Clinical Practice Guidelines Network Workshop. *Can Med Assoc J* 1995;153(12):1715-9.

Hébert-Croteau N, Boivin JF. Quelques concepts au sujet du dépistage... **Revue du réseau d'échange d'information du Québec sur le cancer du sein.** 1995;1:3-4.

Landry R, Battista RN, Poulin D, Morrisset J, Boucher C. La recherche sur l'achat et l'utilisation des technologies de la santé: à l'origine ou à la remorque des politiques? *Ruptures.* Revue transdisciplinaire en santé, 1996;3(1):68-86.

Levy AR, McGregor M. How has lithotripsy changed the treatment of renal stones in Quebec? *Can Med Assoc J* 1995;153(12):1729-36.

McGregor M. Implementing advances in medical technology: the Canadian view. *J R Soc Med* 1995;88(526):29-30.

CONFERENCES AND SEMINARS

The *Conseil's* president, members and researchers gave presentations at numerous conferences in Québec, Canada and abroad in an effort to promote the idea of health technology assessment among the general public, health-care professionals, associations, hospitals and other organizations in the health-care sector, and especially to disseminate the results of its assessments.

Renaldo N. Battista

Lecture in the course entitled "Gestion en médecine de laboratoire". **L'évaluation des technologies de la santé: quand science et réalité convergent.** Faculty of Medicine, Université Laval (Pavillon Vandry), April 5, 1995.

7^{ème} journée québécoise de la recherche en médecine familiale. **La recherche en médecine familiale et le Conseil d'évaluation des technologies de la santé, à la recherche d'une synergie.** Montréal, April 24, 1995.

11th annual meeting, International Society of Technology Assessment in Health Care. **The dissemination and application of technology assessment information.** Stockholm, June 5, 1995.

35th annual meeting, Council of State Governments. **Utilisation et réglementation de la technologie médicale: perspectives canadiennes et américaines.** Québec, August 9, 1995.

Primer Taller Regional de Evaluacion de Tecnologias en el Area de la Salud. **Estado del arte.** Uruguay, August 23, 1995.

Primer Taller Regional de Evaluacion de Tecnologias en el Area de la Salud. **La experiencia canadiense en evaluacion de tecnologias de la salud.** Uruguay, August 23, 1995.

Uruguayan Medical Association. **Technology assessment & clinical practice guidelines.** Uruguay, August 23, 1995.

Primer Taller Regional de Evaluacion de Tecnologias en el Area de la Salud. **Insercion institucional de la evaluacion de tecnologias en el area de la salud.** Uruguay, August 24, 1995.

Primer Taller Regional de Evaluacion de Tecnologias en el Area de la Salud. **Métodos de evaluacion de tecnologias de la salud.** Uruguay, August 24, 1995.

Scientific Basis of Health Services. **The paradigm of health technology assessment: a voyage through metaphors.** London, October 2-4, 1995.

International Society of Quality of Life Research. **Quality of life research and health technology assessment: a time for synergy.** Montréal, October 16, 1995.

Conference at the Collège des médecins. **L'évaluation des technologies de la santé: est-ce vraiment utile?** Montréal, November 3, 1995.

5th symposium, Canadian Coordinating Office for Health Technology Assessment (CCOHTA). **The impact of technology assessment on policy making: the Quebec experience.** Vancouver, November 9, 1995.

International Conference on Governments and Health Systems: Implications of Differing Involvements. **Health technology and quality management: experience in Canada.** Jerusalem, Israel, December 17-22, 1995.

International Conference on Governments and Health Systems: Implications of Differing Involvements. **Implications of the role of governments in health systems.** Jerusalem, Israel, December 17-22, 1995.

Department of Epidemiology and Biostatistics, McGill University. **The evolving paradigm of health technology assessment: What? How? For whom?** Montréal, January 11, 1996.

1995-1996 ACTIVITY REPORT

Department of Epidemiology and Biostatistics, McGill University. **The practice of health technology assessment: the case of the Quebec Health Technology Assessment Council**, Montréal, January 18, 1996.

Symposium on health technology assessment. **Introduction to health technology assessment**. Athens, Greece, February 3, 1996.

Symposium on health technology assessment. **General Discussion, Synthesis and Conclusions**. Athens, Greece, February 3, 1996.

Jean-François Boivin

11th International Conference on Pharmaco-epidemiology. **Theoretical considerations for the study of populations**. Montréal, August 27, 1995.

Jean-François Boivin and Irina Tsarevsky

Symposium entitled "Mise à jour en médecine du travail", Association des médecins du travail. **Les risques de l'exposition professionnelle aux gaz anesthésiques pour la femme enceinte et le fœtus**. Montréal, February 23, 1996.

Roger Jacob

Presentation entitled "High tech 2 en angioplastie périphérique". **La réutilisation des cathéters à usage unique**. Paris, France, January 19, 1996.

Presentation at the Montreal Heart Institute. **La réutilisation des cathéters à usage unique**. Montréal, March 12, 1996.

Jean-Marie R. Lance

Symposium of the Conseil québécois de la recherche sociale. "Evaluer: pourquoi?" **Pour un renouvellement des pratiques de recherche: questions de contexte et de milieu**. Chicoutimi, May 23, 1995.

Symposium organized by the Secteur professionnel des technologies médicales. "Le laboratoire médical: un dynamisme à renouveler".

Réaction à la conférence du Dr Marcel Pouliot. Montréal, June 16-17, 1995.

First Congress of the Municipal Health Secretaries of the Americas. **The role of a health care technology assessment agency in the rational diffusion and the use of health technologies: the exemple of the Quebec agency**. Fortaleza, Brazil, October 13, 1995.

Pascale Lehoux

FCAR team seminar on the use of services, Groupe de recherche interdisciplinaire en santé (GRIS), Université de Montréal. **L'influence de l'évaluation des technologies de la santé**. Montréal, February 16, 1995.

Lecture within the context of a course given by Renaldo N. Battista "Health Technology Assessment", McGill University. **Suivi de l'utilisation et de l'impact de l'évaluation**. Montréal, April 6, 1995.

Seminar of the Société québécoise en évaluation de programme (SQEP), Université du Québec à Montréal. **Suivi de l'utilisation et de l'impact de l'évaluation**. Montréal, May 3, 1995.

Seminar at the Danish Hospital Institute (DHI). **Continuous monitoring of TA agency**. Copenhagen, Denmark, June 19, 1995.

Pascale Lehoux, Renaldo N. Battista and Jean-Marie R. Lance

Poster presented at the 11th annual conference of the International Society of Technology Assessment in Health Care (ISTAHC). **Continuous monitoring of TA agency: a blueprint for survival**. Stockholm, June 3-7, 1995.

Conference of the Canadian Evaluation Society. **Mise en oeuvre d'un système de suivi continu: l'initiative du Conseil d'évaluation des technologies de la santé du Québec**. Vancouver, November 1-5, 1995.

Maurice McGregor

Symposium of the Groupe de recherche interdisciplinaire en santé (GRIS), Université de Montréal. **Les études du Conseil d'évaluation des technologies de la santé du Québec: à l'origine ou à la remorque des politiques?** Montréal, May 12, 1995.

Presentation: Scientific basis of health services. **Health technology assessment: defining the agenda.** London, England, October 2, 1995.

Presentation at the Association des médecins spécialistes en santé communautaire du Québec. **Les travaux du Conseil d'évaluation des technologies de la santé: la prise de décision dans l'incertitude.** Montréal, November 10, 1995.

Maurice McGregor and Jean-François Boivin

Presentation: Scientific basis of health services. **Screening for primary open-angle glaucoma.** London, October 2, 1995.

11th Annual Conference of the International Society of Technology Assessment in Health Care (ISTAHC). **Screening for open-angle glaucoma.** Stockholm, June 4-7, 1995.

Maurice McGregor and James A. Hanley

11th Annual Conference of the International Society of Technology Assessment in Health Care (ISTAHC). **Prostate cancer screening: The problem of over-detection.** Stockholm, June 4-7, 1995.

11th Annual Conference of the International Society of Technology Assessment in Health Care (ISTAHC). **Prostate cancer screening: efficacy of surgery.** Stockholm, June 4-7, 1995.

DISSEMINATION AND COOPERATION

Regular Distribution

The *Conseil* distributed some 2,400 copies of its reports during the year, 50% as part of its strategy for the systematic and general distribution of its new publications. As in the previous year, about 1,200 copies of different publications were distributed to individuals on request, an indication of the usefulness perceived of the synthesized scientific information in these reports. The *Conseil* also continued to systematically distribute reprints of scientific articles based on its work.

Cooperation with Québec Organizations

In 1995-96, the *Conseil* continued to develop closer ties with a number of organizations and sectors in Québec concerned by different aspects of health technology assessment. The objectives were to identify assessment and research priorities, to initiate collaborative efforts with other organizations in order to carry out certain projects and lastly to ensure optimal use of assessment results, which can lead to practice guides or internal policies in hospitals.

As mentioned earlier, the *Conseil* consulted its partners and key contacts in the health network on numerous occasions for the purpose of identifying assessment priorities in new areas. In particular, the subjects have to do with the transformation of the network and the shift to ambulatory care, drug assessment and mental-health interventions and services. In addition, the *Conseil* began to receive assessment requests from different partners, in particular, the regional boards.

The *Conseil* held meetings, among others, with different divisions within the Department, the Collège des médecins du Québec, the Conseil consultatif de pharmacologie, the Fonds de la recherche en santé du Québec and a few research circles. A special joint project was carried out with the Conseil consultatif de pharmacologie (CCP) concerning the treatment of stable angina pectoris, the CCP producing a manual on its pharmacologic treatment, the *Conseil* a report on revascularization procedures. The manual and the synopsis of the *Conseil's* report were distributed together to all of Québec's physicians and pharmacists. In addition, discussions have continued in connection with a potential contribution by the *Conseil* to the execution of the health technology assessment mandate given to the university hospitals.

More specifically, the *Conseil* has actively participated in the joint work of a task group on clinical practice guidelines, which helped set up and which is now directed by the Collège des médecins du Québec. One of the main items dealt with during the year was the setting up of the breast cancer screening program, which has been the subject of different *Conseil*

reports. In addition, the follow-up of recommendations in certain of the *Conseil's* reports was discussed at the group's meetings, since these recommendations concern the possible development of clinical practice guidelines.

Lastly, the *Conseil* has participated in discussions regarding the information highway, for this new means of information exchange may enable the *Conseil* to disseminate the results of its work more effectively, but also to receive more quickly the large quantity of information and data it needs to carry out its mandate properly.

Cooperation and Exchanges with Canadian Organizations

The *Conseil* is part of an information network with the other health technology assessment agencies in Canada. In this connection, it has had many exchanges with representatives from these organizations through meetings, telephone conversations and exchanging reports and information bulletins. Furthermore, it actively contributed to the quarterly report on the activities of Canadian health technology assessment agencies. Such exchanges enable the *Conseil* to benefit from the other organizations' experience, and they prevent duplication and encourage collaboration. It is interesting to note that the *Conseil's* information bulletin on the impact of the *Regulation respecting ozone-depleting substances* on the reuse of single-use devices was highly useful to Alberta's health technology assessment agency.

Very close ties are being maintained with the Canadian Coordinating Office for Health Technology Assessment (CCOHTA). First, it should be noted that Dr. Renaldo N. Battista, the *Conseil's* president, is still the Québec representative on the CCOHTA's board of directors. Also, a few *Conseil* representatives participated in the CCOHTA's fifth regional symposium, which was on the role of economic evaluation in decision making. Among other things, the *Conseil's* president gave a presentation at the symposium, which was very well received.

Other specific exchanges took place with the CCOHTA, in particular, with regard to the drug assessment project, genetic services and operating specialized documentary data banks on health technology assessment. The *Conseil* can thus benefit from the expertise developed by the CCOHTA, which has been carrying out drug assessments for about two years. As for genetic services, the CCOHTA is starting a pan-Canadian survey on the different services offered and their organization. The *Conseil* will be able to use this information in its project on the transfer of knowledge on genetic screening tests to clinical activities.

The *Conseil* has also participated, through the intermediary of its president, in certain meetings with Canadian organizations, such as the National Forum on Health, the Medical Research Council and the Royal College of Physicians and Surgeons of Canada. Each meeting is an opportunity to give the *Conseil* more exposure, gather useful information and better understand the process of putting scientific knowledge into practice.

Cooperation and Exchanges with International Organizations

Throughout the year, the *Conseil* continued to increase its visibility on the international scene, not only through its scientific activity, i.e. publishing articles and giving presentations at international conferences, but also by its concrete participation in or exchanges with different organizations. In this regard, it is interesting to note that the report entitled "The reuse of single-use catheters", produced by the *Conseil*, was, under an agreement, published in its entirety in a University Health System Consortium (UHC) report entitled "Technical Report: catheters and guidewires in diagnostic and interventional radiology".

In June 1995, the *Conseil's* president, Dr. Renaldo N. Battista, became the president of the International Society of Technology Assessment in Health Care (ISTAHC). It should be noted that this international organization has been headquartered in Montréal since October 1995 .

The *Conseil* has maintained its affiliation with the International Network of Agencies for Health Technology Assessment (INAHTA), which enables it to share information, develop assessment methodologies and explore the possibility of carrying out assessment activities involving a number of different agencies.

During the year, the *Conseil* kept up close exchanges with several national health-technology-assessment agencies, such as France's Agence nationale pour le développement de l'évaluation médicale (ANDEM), the Catalonian Agency for Health Technology Assessment, the Basque Country Health Technology Assessment Bureau, the Health Technology Assessment Centre of Veneto in Italy and Sweden's SBU. Deplorably, the U.S. Congress has abolished its Office of Technology Assessment.

Additionally, the *Conseil* made or maintained contact with representatives from several organizations in different countries to both familiarize them with the *Conseil's* organization and functioning and learn more about their activities. In this connection, mention is to be made of meetings with representatives from new health technology assessment agencies created in Finland and Malaysia. Also, the *Conseil* hosted representatives from Italy, Colombia, Uruguay, the Netherlands and Greece on its premises.

DEVELOPMENT AND SUPPORT

Communications and Monitoring the Impact of the *Conseil's* Activities

The external evaluation made of the *Conseil* in 1991 by Price-Waterhouse concluded that the organization needed to hasten the development of its communications in order to more

effectively reach policy makers and others who use the information produced by the *Conseil*, and the *Conseil* needed to increase the use of its reports and promote an assessment culture in order to maximize the impact of its activities on Québec's health network. Last year, two special projects were launched to respond concretely to these needs. These projects were continued during the 1995-1996 year.

Development and implementation of a communications plan

After consulting communications consultants, the *Conseil* developed a multifaceted communications strategy and began to put in place the resources and tools needed to implement it. The strategy is aimed at both selected audiences and the general public, which involves increased public-outreach activities, carefully prepared press releases and better targetting of individuals who might find the information in the reports useful. This strategy was tried out with the distribution of the report entitled "Screening for Cancer of the Prostate", which led to the production of a synopsis of the report and closer dealings with the media. Steps have also been taken to more effectively manage the systematic-mailing list for the *Conseil*'s reports.

Creation of a framework for monitoring the Conseil's reports and activities

This project passed an important stage with the production of the following internal documents (described in the Appendix 1): *Suivi de l'utilisation et de l'impact des avis produits par le Conseil - Première partie: Cadre conceptuel; Deuxième partie: Cadre opérationnel*. The *Conseil* has gradually begun to institute the different mechanisms and tools recommended in this document. The monitoring system will generate the feedback needed to assess the *Conseil*'s influence on decisions concerning different technologies and their use per se. The feedback will enable the *Conseil* to adjust its communications plans on a regular basis.

In connection with this subject, it should be noted that a report entitled "L'évaluation de l'influence et de l'impact des rapports du Conseil d'évaluation des technologies de la santé" was prepared by Mr. Robert Jacob, of the Ministry's Planning and Assessment Directorate. The report, which includes a synopsis and a case study, concludes that the *Conseil*'s first 21 reports have had a positive impact, especially by influencing local and departmental policies and in terms of yielding gains in efficiency in the health-care network.

Development of the Research Staff's Expertise

The *Conseil* continued the initiative it began in 1994-95 to hold bimonthly scientific meetings to enable the permanent research officers and researcher-consultants to engage in in-depth

discussions on the assessment projects in progress and acquire new knowledge presented by researchers outside the *Conseil*, especially on methodological questions.

In addition, to the extent its resources permit, the *Conseil* has encouraged its research staff's participation in specialized conferences directly related to the subjects on which they are working and in training sessions on the nature and use of statistical and documentary data banks.

Lastly, the *Conseil* continued to encourage its staff to produce scientific publications based on its assessment reports and, insofar as its resources permitted, to present them at scientific conferences and symposia. A list of these publications was provided in an earlier section.

Development of the Documentation Centre

To efficiently meet the requests from the *Conseil's* researchers, the available information must be identified in the most thorough and appropriate manner possible. To this end, the *Conseil's* Documentation Centre has, over the years, acquired numerous sources of information or access to such sources, such as:

- Bibliographic data banks (Medline, Pascal, Cancerlit, etc.)
- Specialized documentary tools (directories, yearbooks, etc.)
- Books, theses, guidelines, research reports
- Journals and specialized newsletters

The centre selects materials using a variety of information sources, in order to expand its collection and have up-to-date information. The centre's collection is available to the public for consultation.

The centre is in close touch with the libraries at other health technology assessment organizations (CCOHTA, ANDEM, etc.) and Québec university and hospital libraries. The excellent collaboration with these libraries has enhanced information sharing.

THE CONSEIL'S PRODUCTION RESOURCES

Regular Staff

During the year, *Conseil* continued to consolidate its status as a permanent organization, since it hired a permanent research officer, Ms. Marie-Josée Blais. Following the departure of a secretary, the *Conseil* relied on the occasional services of Ms. Josée Charbonneau until a permanent employee was hired, Ms. Solange Sabourin. Also, it should be mentioned that

after the departure of a research officer at the end of the year, the process of recruitment by assignment or transfer was initiated.

Researcher-consultants

Because of the highly specialized subjects dealt with in its assessment projects, the *Conseil*, thanks to its research budget, was able to count on increased production capacity, namely by using, during the year, on an ad hoc basis or as specific needs arose, the services of 13 researcher-consultants.

Individuals on Contract

Lastly, the *Conseil* used its research budget to request outside resources to prepare exploratory reports and analyses, conduct field studies aimed at filling information gaps, producing synopses of scientific information on specific subjects or preparing the major portion of an assessment report. The contracts thus granted in 1995-96 were as follows:

The excimer laser in ophthalmology

Dr. Isabelle Brunette, Ophthalmologist, Hôpital Maisonneuve-Rosemont, Montréal.

A comparative cost-effectiveness study of treatments by means of hemodialysis and peritoneal dialysis

Dr. Florence Cogny-Van de Weydevelt, Nephrologist, Hôpital Maisonneuve-Rosemont, Montréal.

The risks and advantages of dental amalgams

Hellen Gelband, Health Technology Assessment Consultant; Dr. Ivan Stangel, Faculty of Dentistry, McGill University, Montréal.

Monte Carlo sensitivity analysis: Application to glaucoma screening

Lawrence Joseph, Department of Clinical Epidemiology, Montreal General Hospital, Dr. Jean-François Boivin, Conseil d'évaluation des technologies de la santé; Dr. Wilber Deck, Direction de la santé publique, Montréal-Centre.

A critical literature review of the efficacy of acupuncture in the treatment of chronic back pain

Patrick Chabot and Abby Lippman, Department of Epidemiology, McGill University, Montréal.

Evaluation of the quality of homeopathic research from a methodological standpoint

Gilles Harvey, Department of Anthropokinetics, Université du Québec à Montréal.

Experts for the Genetic Screening Project

In the description of the *Conseil's* production activities, it is stated that the *Conseil* formed an in-house research team and a multidisciplinary advisory committee consisting of ten experts for the purpose of carrying out its project on genetic screening. The experts in question are:

Guy Bourgeault, Faculty of Education Services, Université de Montréal

Jacques Genest Jr., Institut de recherches cliniques de Montréal

Wendy Kennedy, Groupe de recherche interdisciplinaire en santé, Université de Montréal

Rachel Laframboise, Department of Genetic Medicine, CHUL, Québec

François Meyer, Hôpital du Saint-Sacrement research centre, Québec

Grant Mitchell, Department of Genetics, Hôpital Sainte-Justine, Montréal

Suzanne Philips-Nootens, Faculty of Law, Université de Sherbrooke

Marie-France Raynault, Direction de la santé publique, Montréal

François Rousseau, Molecular and Human Genetics Unit, Hôpital Saint-François d'Assise, Québec

David S. Rosenblatt, Division of Genetic Medicine, Royal Victoria Hospital, Montréal.

APPENDIX 1

**Detailed summaries of reports and other works
prepared by the *Conseil* during the 1995-1996 year**

1995-1996 ACTIVITY REPORT

*Le Conseil d'évaluation des technologies de la santé
et son rôle dans l'évaluation des médicaments*

Objective

- To inform readers of the specific contribution the *Conseil* can make in the area of pharmacology by way of assessments, given its expertise in methods for assessing health technologies, which, by definition, include drugs.

Contents

- Overview of the *Conseil d'évaluation des technologies de la santé*
 - Its mandate
 - The assessment procedure
 - Dissemination and cooperation
- Influence and impact of the *Conseil's* reports
 - Contrast media
 - Routine preoperative chest x-rays
- The *Conseil* and drug assessments
 - Selecting the first assessment topics
 - The mandate to assess drugs used by the elderly
 - The perspective of the *Conseil's* assessments
 - The *Conseil's* methodological approaches to assessing drugs
 - Possible examples of drug assessments
 - The conditions for drug assessment reports to have a significant impact

Authors **Renaldo N. Battista**
 Jean-Marie R. Lance

Collaborators **Line Gariépy**
 Robert Jacob

*Screening for cancer of the prostate:
An evaluation of benefits, unwanted health effects and costs*

Objective

- To evaluate the benefits, unwanted health effects and costs associated with prostate cancer screening by means of prostate-specific antigen (PSA) tests in asymptomatic men aged 50 to 79.

Method

- Extraction of data from the RAMQ and MED-ÉCHO banks and from hospital surveys; estimates of over- and underdetection based on data from the literature; estimate of the efficacy of prostatectomies based on series of observations published in the scientific literature (no sufficiently large randomized clinical trial was available).

Results and conclusions

- *Under- and overdetection.* It is estimated that nearly 15% of fatal cancers will be missed by a screening strategy based on PSA tests and that for each case of fatal cancer requiring treatment, about 5.4 cases of nonfatal cancers will also be detected.
- *Effectiveness of surgical intervention.* Based on what is considered the most probable estimate, one death would be averted for every 100 men who undergo surgery. Based on the most optimistic and unlikely estimate considered, only nine deaths would be averted for every 100 men who undergo surgery.
- *Complications of surgical intervention.* Two interventions in 100 will probably result in serious, long-term urinary incontinence, 50% of patients who had normal sexual function will become permanently impotent and one intervention in 300 will result in death.
- *Costs.* According to the most likely scenario, the cost of a systematic screening program is \$214,000 per year of survival.
- *From the perspective of the health-care system.* The positive effects on health are too uncertain to justify the unwanted health effects and the use of the resources associated with prostate cancer screening by means of PSA tests. This is equally true for a detailed and comprehensive screening program as it is for screening in the context of case finding.
- *From the individual's perspective,* every man who considers having his PSA measured should be fully informed of the potential important consequences of this test and the ensuing interventions.

External reviewers

Jaime J. Caro, Caro Research, Lincoln, Mass., USA
Gerald W. Chodack, Prostate and Urology Center, Louis A. Weiss Memorial Hospital, University of Chicago
Allan S. Detsky, Department of Medicine, University of Toronto
Robert Jacob, Ministère de la Santé et des Services sociaux du Québec
Isra Levy, Health Protection Branch, Health Canada
François Meyer, Groupe de recherche en épidémiologie, Université Laval
Luc Valiquette, Department of Urology, Hôpital Saint-Luc, Montréal

Authors

James A. Hanley
Maurice McGregor

*Variations in rates of tonsillectomy,
adenoidectomy and myringotomy in Québec*

Objectives

- *i)* To confirm the geographical variations previously observed in the rates of tonsillectomy (with or without adenoidectomy); *ii)* to determine if there are comparable variations in the rates of adenoidectomy alone and of myringotomy; and *iii)* to explore the link between the rates of these three operations and the factors that can influence them.

Method

- Extraction of data from the *Régie de l'assurance-maladie du Québec* (RAMQ) data bank, the unit of observation being the geographic territories of the *départements de santé communautaire* (DSCs).
- For each DSC, the standardized rates of the three operations were calculated for both sexes, based on the patient's residence.
- A multiple regression method was then used to determine if there were any associations between the rates for each operation and the following explanatory variables: rate of relevant illnesses, number of hospital beds and physicians per population, average family income and index of urbanization.

Results and conclusions

- The coefficient of variation for the three procedures ranges from 26.4% to 41.4%, and the extremal quotient (ratio of the highest rate to the lowest) ranges from 3.0 to 6.8.
- No significant link was found between the rates of the three operations and the *health of the population* (measured by the rate of relevant illnesses) or the population's *socioeconomic status*.
- The analysis revealed an inverse association between the *number of acute-care beds* per 10,000 people and the rate of tonsillectomy alone and a positive association between the *number of OTL surgeons* per 10,000 people and the rate of tonsillectomy alone observed in men.
- There is a close correlation (negative) between the *index of urbanization* and the rate of myringotomy (men and women) and tonsillectomy alone (men). The latter procedure is performed more often in DSCs in less urbanized areas.
- If the rates of these operations were the same throughout Québec as the average for the seven Montréal DSCs, the health-care system would achieve savings of about \$6 million a year (costs incurred by patients treated medically not included). Not only are the causes of the observed variations not identified conclusively, but there is also no evidence that high or low rates are appropriate values.

External reviewers

Pierre Arcand , Hôpital Sainte-Justine, Montréal (*dissenting*)
Jean-Paul Collet, Jewish General Hospital, Montréal
Hanh Ngo, Centre hospitalier de l'Université de Sherbrooke
Melvin D. Schloss, Montreal Children's Hospital

Authors

Adrian R. Levy
Maurice McGregor

***Revascularization procedures for the treatment
of stable angina pectoris***

Objectives

- To examine the safety, efficacy, cost and comparative utility of the available revascularization procedures, namely the two conventional procedures, that is, percutaneous transluminal coronary angioplasty (PTCA) and coronary artery bypass graft (CABG) surgery, and five recent percutaneous angioplasty techniques, namely directional coronary atherectomy, rotational atherectomy, transluminal coronary extraction, laser angioplasty and coronary stent implantation (vascular endoprotheses).

Method

- An in-depth review of the medical literature published up until March 1995.

Results and conclusions

- It is pointed out that most patients with stable angina can be treated effectively with medical therapy aimed at controlling the risk factors and symptoms. Interventional revascularization is reserved for high-risk patients who respond poorly to medical treatment.
- PTCA and CABG are safe, efficacious and largely complementary procedures for treating high-risk patients requiring revascularization. They reduce anginal symptoms and improve exercise tolerance compared to medical treatment.
- Compared to medical treatment, only CABG prolongs survival in certain groups of patients. However, it is associated with a higher initial hospital cost, an increased risk of periprocedural myocardial infarction and a more prolonged initial convalescence period.
- PTCA success rates can be expected to exceed 90% with a very low rate of myocardial infarction, emergency CABG, and death. PTCA is more expensive than medical therapy.
- PTCA does not effectively dilate all arteries with lesions, can cause abrupt vessel closure and is often followed by restenosis. These limitations are the impetus for continued research aimed at developing new interventional angioplasty techniques.
- The five new techniques are efficacious, safe, innovative technologies for treating carefully selected patients with stable angina, but it has not been shown that they offer any clear clinical advantages or lower the rate of restenosis compared to PTCA. Also, they are more expensive and can cause increased complications. Their routine use is therefore not yet justified. These techniques may have limited future indications, which will need to be clearly defined.
- The only exception with regard to the new techniques is coronary stent implantation, whose safety and efficacy have been demonstrated in the emergency treatment of abrupt or threatened coronary closure following PTCA.

External reviewers

Martial Bourassa, Montreal Heart Institute
Gilles Côté, Montreal Heart Institute
Gilles Dagenais, Faculty of Medicine, Université de Montréal
Benoît de Varennes, Department of Surgery, Royal Victoria Hospital, Montréal
Jacques R. Rouleau, Institut de cardiologie de l'Hôpital Laval, Québec
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Risks of occupational anesthetic gas exposure for the pregnant woman and the fetus

Objectives	<ul style="list-style-type: none">• To examine the animal and epidemiologic data on the effects of occupational anesthetic gas exposure on reproduction.
Method	<ul style="list-style-type: none">• Critical review of animal studies on the effects of exposure to the following anesthetic gases: halothane, nitrous oxide, a combination of halothane and nitrous oxide, enflurane and isoflurane.• Meta-analysis of epidemiologic studies on the links between occupational anesthetic gas exposure and miscarriage.• Critical review of studies on the risks posed by anesthetic gas exposure in terms of congenital abnormalities, subfertility and other effects.
Results and conclusions	<ul style="list-style-type: none">• Exposure to halothane, nitrous oxide and possibly enflurane has harmful effects on reproduction in laboratory animals. At subanesthetic concentrations, these four anesthetic gases can also hinder the neurobehavioural development of the offspring of exposed animals.• The meta-analysis of 24 comparisons between exposed and unexposed women taken from 19 available studies estimates the risk of miscarriage at 1.51, which means that the risk increases by 51% in exposed women. However, the estimated risk may be due to various biases as much as to the actual harmful effects of these gases. An attempt to correct for these biases by selecting the most rigorous studies gives an estimated relative risk of up to 1.86. Most of the data available concerned women working in environments without scavenging systems.• The studies examined do not show any increased risk of congenital malformations for women exposed to anesthetic gases, but their statistical validity is limited. Only two studies were identified. They demonstrated negative effects of gas exposure on fertility.• The analysis suggests that occupational exposure of pregnant women to high atmospheric concentrations of anesthetic gases should be avoided. Appropriate systems for scavenging these gases should be installed and the regulatory standards observed. In the presence of low atmospheric levels of such gases, the harmful effects can be reduced or even eliminated, but this conclusion is based on extremely limited data. Further research on this question is required.
External reviewers	<p>Marc Baril, Commission de la santé et de la sécurité du travail, Montréal Gina Bravo, Centre de recherche en gérontologie et gériatrie, Sherbrooke Agathe Croteau, Public Health, Régie régionale de santé et services sociaux de Québec Gordon S. Fox, Department of Anesthesia, Royal Victoria Hospital, Montréal Nicole Mamelle, INSERM U265, Lyon, France Sylvie Marcoux, Hôpital du Saint-Sacrement research centre, Québec Jean-Marie Moutquin, Hôpital Saint-François d'Assise research centre, Québec Marie-Josèphe Saurel-Cubizolles, INSERM U149, Villejuif, France Patrick Sébastien, Institut de recherche en santé et sécurité du travail, Montréal Clarice R. Weinberg, National Institute of Environmental Health Sciences, Research Triangle Park, NC, U.S.A.</p>
Authors	<p>Jean-François Boivin The late Marina Najjar Irina Tsarevsky</p>

Results of a Québec hospital survey on reusing single-use instruments in laparoscopic surgery

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| Objective | <ul style="list-style-type: none">• To describe the nature and extent of the practice of reusing so-called "single-use" instruments in laparoscopic surgery and to document the existence of policies adopted by hospitals concerning this practice. |
| Method | <ul style="list-style-type: none">• A questionnaire was sent to the director of professional services at each of Québec's 109 acute-care hospitals. The response rate was 95%. |
| Results and conclusions | <ul style="list-style-type: none">• Sixty-three percent of the respondents said that they reuse single-use instruments in laparoscopic surgery. The rate of reuse for individual instruments varies from 6.3 to 78.1%. Thirty-nine percent of the 64 hospitals that practice reuse reuse three or fewer types of instruments, and 17% reuse 8 types or more.• Sixty-one percent of the hospitals that practice reuse have not adopted any special measures to govern the practice, and only 16% have adopted a formal policy in accordance with the position recommended by the Ministère de la Santé et des Services sociaux.• Since most of the hospitals that practice reuse sterilize single-use instruments with a mixture of ethylene oxide and chlorofluorocarbons (CFCs), they will have to modify their methods to conform to the new <i>Regulation respecting ozone-depleting substances</i>, which came into effect on April 1, 1995. |
| Author | Guy Régnier |

Participation of the *Conseil* to a study prepared and published by the Association des hôpitaux du Québec (AHQ):

<i>The routine use of certain diagnostic tests and examinations in hospitals</i>	
Objective	<ul style="list-style-type: none">• To determine the current status of hospital practices regarding a broad range of diagnostic tests and examinations whose routine use (for all patients in a given group) is being called into question by current knowledge.
Method	<ul style="list-style-type: none">• Mail survey conducted in the winter of 1994-1995 by the group OPTIMAH of the Association des hôpitaux du Québec (AHQ) among the directors of professional services and the physicians in charge of the areas of clinical activity concerned in Québec's 118 community and special and acute care hospitals. The response rate was 92%.• Tests/examinations studied: preadmission, preoperative and more than about 50 others in the following areas: medicine, cardiology, neurology, nephrology, gastroenterology, endocrinology, pediatrics, psychiatry, obstetrics-gynecology, ophthalmology, emergency rooms and intensive care units.
Results and conclusions	<ul style="list-style-type: none">• Most of the diagnostic tests/examinations covered by the survey and whose routine ordering is discouraged by studies and the professional consensus are performed infrequently in the responding hospitals, except for four clearly identified types of tests/examinations. It therefore seems that clinicians in hospitals are able, in most areas, to quickly adjust their practices of ordering diagnostic tests/examinations to recent knowledge concerning their efficacy.• Major differences in these practices are nonetheless observed between the various regions and groups of hospitals, although the profile of these differences varies according to the nature of the tests/examinations involved.• A thorough review should be carried out of the usefulness of the following tests/examinations: preadmission and preoperative, the routine use of the sedimentation rate (arthritics), the simultaneous ordering of tests when there is a diagnosis of anemia, and ordering an echocardiogram in the case of myocardial infarction, a gastroscopy and culture for <i>Helicobacter pylori</i>, CT scans for transient ischemic attacks, tests/examinations in intensive care units, follow-up serum lithium level for manic-depressive illness, and fetal ultrasound.
Authors	<p>Pierre Boyle, AHQ Alicia Framarin, AHQ Daniel Nadeau, AHQ</p>

Monitoring the use and impact of the assessments published by CÉTS

- Objective**
- To develop a system for monitoring the use and impact of the assessments published by the *Conseil d'évaluation des technologies de la santé du Québec*.
- Method**
- The task was carried out in two stages. The first consisted in creating a general **conceptual framework** for situating the scope of CÉTS's assessment activities and monitoring mechanisms that could evidence the agency's various forms of influence. A literature review was done on concepts and approaches in political science, administration, medical sociology and public-policy evaluation. In addition, resource persons were consulted.
 - The second stage, of a more concrete nature, consisted in determining the **operational characteristics** of the monitoring mechanisms. The following were specified for each mechanism: the objectives, the data to be gathered, the data compilation method, and the nature and frequency of publication of the opinions.
- Results and conclusions**
- The monitoring system covers, in particular, six main categories of potential effects of assessments, i.e. economic, health, organizational, market, social and political. The system also makes considerable allowance for interactions between stakeholders, recognizing that they perceive, assess and use technologies according to their own frame of reference.
 - Also, the audience that CÉTS seeks to influence by means of its assessments is not static. Thus, in the proposed system, the nature of the monitoring activities for a given assessment will differ according to whether its conclusions confirm the current state of affairs (situation of *continuity*) or call it into question (situation of *turbulence*).
 - The operational section of the report presents a set of 18 flexible, diversified and versatile monitoring instruments. Nine of them were developed to monitor the use and impact of the assessment reports: the logbook, the monitoring plan, the descriptive summary, the external reviewers' opinions, the practice survey, the estimate of the effects, the readers' evaluation, the patients' evaluation and the distribution of the reports. It should be noted that all these monitoring instruments cannot necessarily be used for all assessment projects.
 - Five instruments were developed for monitoring so-called "communications" activities: the reader profile, the evaluation of the publications, the evaluation of the scientific and professional communications, the meeting report and ties with the different sectors concerned.
 - Lastly, four, more general-purpose instruments provide an overview of how all the activities are progressing, to make it easier to effect strategic adjustments and prioritize our actions: the stakeholder matrix, project flow, the annual activity report and the critical path of CÉTS's activities.

Author **Pascale Lehoux**

APPENDIX 2

**List of official reports of the
Conseil d'évaluation des technologies de la santé du Québec
(as at March 31, 1996)**

**REPORTS PUBLISHED BY THE CONSEIL D'ÉVALUATION
DES TECHNOLOGIES DE LA SANTÉ DU QUÉBEC**

- 1 Activity Report - April 1994 - March 1995
- 2 Distribution of cardiac catheterization laboratories in Québec. 1989. 3 p.
- 3 Domiciliary long-term oxygen therapy for chronic respiratory insufficiency. 1990. 2 p.
- 4 Magnetic resonance imaging. 1990. 3 p.
- 5 Treatment of obstructive sleep apnea by nasal continuous positive airway pressure. 1990. 22 p.
- 6 Evaluation of low vs high osmolar contrast media. 1990. 79 p.
- 7 Extracorporeal shock wave lithotripsy (renal, biliary). 1990. 4 p.
- 8 Screening for breast cancer in Québec: estimates of health effects and of costs (Reference documents 1 and 2 in French only - 34 p). 1990. 24 p.
- 9 ECMO: efficacy and potential need in Québec. 1990. 18 p.
- 10 Access to low osmolar contrast media: legal and ethical considerations. 1990. 24 p.
- 11 Hemodialyzer reuse: considerations of safety and costs. Executive summary 1991. 6 p.
- 12 Transplantation in Québec: preliminary report on effectiveness, costs and organizational characteristics. 1991. 44 p.
- 13 Routine preoperative chest X-rays. 1992. 17 p.
- 14 The reuse of permanent cardiac pacemakers. 1991. 25 p.
- 15 Cardiac transplantation in Québec: survival, costs and cost-effectiveness. 1992. 84 p.
- 16 The use of chlorofluorohydrocarbons [freon, CFC] in certain sterilization procedures in Québec hospitals. Technology Brief. 1992. 9 p.
- 17 Bone marrow transplantation: present status. 1992. 31 p.
- 18 Evaluation of low versus high osmolar contrast media in general radiology: update. 1992. 13 p.
- 19 The cost of conventional cholecystectomy, laparoscopic cholecystectomy and biliary lithotripsy. 1993. 30 p.
- 20 Implantable cardioverter defibrillators (ICD): a technology brief. 1992. 8 p.
- 21 Diathermy and balloon dilatation treatment of benign prostatic hypertrophy: a technology brief. 1993. 13 p.
- 22 Screening for breast cancer in women aged 40-49 years. 1993. 91 p.
- 23 The reuse of single-use catheters. 1993. 65 p.
- 24 Variations in the frequency of surgical procedures by region in the province of Québec. 1993. 59 p.
- 25 Transurethral diathermy for benign prostatic hypertrophy: update 1993. 15 p.
- 26 The impact of renal extracorporeal shock-wave lithotripsy on the use of resources in the Québec health care system. 1994. 51 p.
- 27 The introduction of laparoscopic cholecystectomy in Québec: effects on intervention rates and resource utilization. 1995. 14 p.
- 28 Information bulletin. Impact of the Regulation respecting ozone-depleting substances on the reuse of single-use devices. 1995. 55 p.
- 29 The screening of primary open-angle glaucoma. 1995. xvi, 93 p.
- 30 Screening for cancer of the prostate: an evaluation of benefits, unwanted health effects and costs. 1995. 90 p.
- 31 Variations in rates of tonsillectomy, adenoidectomy and myringotomy in Québec. 1996. 28 p.
- 32 Revascularization procedures for the treatment of stable angina pectoris - A state of the art review. 1996. Abridged version. 8 p.
- 33 Risks of occupational anesthetic gas exposure for the pregnant woman and the fetus. 1996. x, 119 p.