

INSTITUTE OF HEALTH ECONOMICS

Health Technology Assessment Program
Process and Impact Evaluation

FINAL REPORT

May 25, 2011

Acknowledgements

The Evaluators would like to thank the HTA Program staff and other IHE staff for input to and participation in this evaluation. In particular, Liz Dennett and Dagmara Chojecki, Information Specialists at the Institute were invaluable in pulling and compiling data to support many aspects of this report. As well, the feedback and insights provided through the participation of 28 HTA Program stakeholders within and external to Alberta are greatly appreciated.

Executive Summary

Background

Health Technology Assessment (HTA) services are offered through a Provincial Health Technology Assessment (HTA) Program, situated at the Institute of Health Economics (IHE), through the provisions of two grant agreements with Alberta Health and Wellness (AHW). In preparation for the renewal of two agreements between AHW and the IHE on March 31, 2012, the IHE commissioned an external evaluation of the HTA Program, effective from the time of the program's transfer, by the Minister of Health and Wellness, from the Alberta Heritage Foundation for Medical Research (AHFMR) to the IHE in July 2006.

Evaluation Purpose and Methodology

The purpose of the evaluation was to demonstrate the impact of the HTA Program and its accountability for HTA related grant dollars received from AHW through a description and analysis of the program's products and services. The evaluation was organized around four core functions identified in literature on HTA organizations: program adaptation; culture and values maintenance; production and dissemination; and impact.

Data from document review, key informant interviews, surveys, focus groups, and case studies were used to assess achievement, challenges and opportunities in the dimensions of interest. The evaluation findings reflect feedback received from 46 key informants, both internal (18) and external (28) to IHE, augmented by evidence obtained from a review of relevant program documents. External informants included requestors, recipients and users of HTA products, representatives of other HTA organizations, and expert advisors and reviewers. Data used for the evaluation covered the time period from July 2006 to September, 2010. Where possible and available, other completed activities and reports until March 31, 2011 were also included.

Grant Accountability

In both of its two main grant agreements with AHW – the Health Technology Assessment and Alberta Health Technology Decision Process grant agreements – leeway is provided to the HTA Program as to how objectives are met making it difficult to assess if all grant expectations were fulfilled. Of note, the changing landscape within the Ministry is not reflected in the agreements leading to confusion around language used and expectations of the grant recipient. Nonetheless, the evaluation recorded significant breadth and scope of activity in all areas included in the grant agreements. The specifics of these achievements are reported throughout the Findings section. The ability to leverage funding to enhance existing innovative approaches is an unintended and welcome consequence of the grants.

Summary of Findings

Program Adaptation

- *Internal Capacity:* The HTA team is composed of a largely consistent group of 8.3 core staff, and is perceived to be “very productive for its small size”. Health economics capacity was identified by informants as valuable to decision makers, and a “unique advantage” of the HTA Program at IHE.
- *External Support:* Awareness of the HTA Program at IHE was rated “excellent” to good” although it was higher for national and international HTA communities than Alberta HTA communities. External informants highlighted the positive collaborative processes that occur between requesters and the HTA Program but some note it could be improved by working with other HTA organizations to streamline processes and expedite the products more efficiently. Access to, and the right mix of, experts was identified as a tremendous benefit particularly when clinicians are involved in the HTA process.
- *Learning and Innovation:* The HTA Program’s innovations in the area of best practice and methodological development are perceived by key informants as positive contributions to the field of HTA. The Program at IHE demonstrates a strong culture of organizational learning through its commitment to lifelong learning, program evaluation and continuous improvement.

Culture and Values Maintenance

- *Principles:* A large majority of external respondents stated that adherence to HTA values of scientific rigour and transparency were evident with particular reference to the HTA Program being unbiased and having high standards;
- *Organizational Climate:* HTA Program staff report an organizational climate that supports the maintenance of core values and principles through fostering teamwork, effective leadership and efficient internal communication and work processes.

Production

- *Product line:* The HTA Program maintains a core product line designed to meet the needs of receptor audiences including full HTA reports, rapid assessments, information papers, STEp reports and comparative effectiveness reports. Since 2006, the program has produced or contributed to 154 publications of all kinds, the most significant of which include 14 full HTA assessment reports, eight STEp reports, nine information papers, 22 external publications and 22 publications specific to the Ambassador Program.
- *Product quality:* External respondents generally perceive HTA Program products to be of high quality. All informants “strongly agreed” that the reports provided by HTA Program are of high scientific rigour. All respondents who had used at least one HTA Program product rated readability, relevance, content, format, appropriateness and practicality as either “excellent” or “good”.
- *Production Processes:* Program staff felt there were areas for improvement in production processes, including better question definition upfront, enhanced data access, review of timelines to conduct comprehensive reviews and ways by which the expert advisory group structure could be improved. Preparing timely products while maintaining methodological rigour was a noted ongoing challenge for researchers and requesters alike.
- *Dissemination:* HTA Program reports available through the IHE website received a total of 2,823 “hits” in 2010. Some recent reports received over 100 hits within their first few months online. Seventy two presentations have been delivered since program transfer in 2006. The HTA Program

was noted to contribute to the evolution of knowledge transfer in the province, particularly through innovative KT strategies employed by the Ambassador Program.

Impact and Goal Attainment

- *Use in Policy and Practice:* The majority of HTA and STEp reports produced since 2006 are reported to have had or are expected to have an impact on policy and decision making and/or practice in the health system. Availability of research evidence and timeliness of reports were identified by informants as key factors in influencing the utilization of HTA Program products.
- *Impact in the research system:* Evidence suggests that the work of the HTA Program has contributed to impacts in the field of HTA through: building HTA capacity and skills within both IHE and others in the health sector; contributing significantly to new research methodologies; and developing tools to assist decision makers. Best practice is a two-way street with the HTA Program staff expected to use the highest standards in all they do but also to contribute to the practice of others through participation in activities in the HTA community where they share their knowledge and experiences.
- *Enhancing impact:* The impact of work completed by the HTA Program could be enhanced through: improved collaboration and communication between the HTA Program, requesters, experts, decision-makers and other HTA organizations; increasing awareness and improved “branding” of IHE and the work of the HTA Program; and generation of further peer-reviewed publications from HTA research.
- *Assessing impact:* Respondents, particularly HTA researchers, identified challenges in defining, tracing and assessing the use and impact of completed HTA reports, particularly related to policy and practice impacts.

Case Studies

Three case studies provided more detailed examples of impact, the factors associated with impact and the best methods to assess impact. The three projects were initiated by different requestors and the source of funding was either the grant in support of the provincial HTA service or the AHTDP capacity building grant. The case studies reveal a large diversity in the levels and forms of impacts. Broadly, the case studies show the benefit of being “needs-led” where reviews were undertaken on issues of current importance to the health system and where receptor bodies were engaged and primed to see the evidence. Defined, targeted dissemination plans appear to be an important factor in uptake but require significant dedication of staff and resources (in-kind or otherwise).

Looking Forward: Challenges and Opportunities

The IHE is perceived to be a leader in its field with a solid reputation in local and international HTA communities. The HTA Program is seen as highly credible and reflective of strongly held HTA principles and values. Program staff and leadership demonstrate strong commitment to maintaining “gold standard” methodological practices with an emphasis on scientific rigour and high quality products. Stakeholders are generally satisfied with the program and what it has accomplished to date but recognize the fast pace of technology will require the HTA Program to be nimble on its feet so it can respond to the increasing complexity of the questions that need answering.

Key informants identified a number of challenges related to the overall provincial process and environment and not directly under the control of the HTA Program, including: change of relationship

with AHW resulting in (often) ineffective stages in the HTA process; changes engendered by the creation of AHS; the implementation of a new provincial research strategy; the distributed nature of HTA production in the province; and the current politics of health and research. Some external informants were not aware of the overall processes for HTAs in the province and attributed delays in the process for decision making to the HTA Program.

As the program approaches the end of its five year grant agreement, key informants highlighted the following opportunities and recommendations for the future:

- There is a need for a clear strategic program agenda that will meet the needs of the funder while at the same time contributing to the mission, vision and strategic directions of its home organization. Some informants recommended pursuing the possibility of becoming an independent, arms-length entity.
- IHE needs to increase awareness and visibility, especially within Alberta, regarding itself and its HTA related products and services. One suggestion was improving the “branding” of the HTA Program specifically, so that it remains identifiable to stakeholders regardless of where it is housed.
- In the face of rapidly evolving technologies, there may be a need for the HTA Program to collaborate with all partners to identify opportunities for translational research on emerging technologies rather than reacting to what is developed and on the market.
- HTA Program and IHE staff could contribute their skills and experiences to help the health system address current issues through data mining of existing databases. This would require re-negotiation of all contracts as currently IHE is only able to use data pulled for the intended purpose.
- The Ambassador Program is a resource intensive program due to the magnitude of work undertaken and commitment to ongoing updates. Consideration should be given to housing the program as an enhanced function and resourcing it appropriately as a service provided on behalf of the health care system.
- Capacity building activities could be further strengthened and developed as a core element of the HTA Program’s services.
- There is a need for improved processes and systems for tracking impact of HTA Program products.
- The HTA Program is encouraged to continue to work collaboratively and strengthen linkages with the range of enthusiastic partners and stakeholders that have been drawn to the program and who look forward to continuing to share in its success. As one informant said: “energy, enthusiasm and commitment is coming from the HTA Unit right now”.

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1. Introduction

The Provincial Health Technology Assessment (HTA) Program has been situated at the Institute of Health Economics (IHE) through a grant agreement with Alberta Health and Wellness (AHW) since 2006.¹ Its primary goal is to fulfill the requirements of the Minister and to support the needs of Alberta's health system.

In preparation for the renewal of the five-year provincial grant agreement between AHW and the IHE on March 31, 2012, Charis Management Consulting was contracted to conduct an evaluation of the HTA Program covering the time period from the program's transfer, by the Minister of Health and Wellness, from the Alberta Heritage Foundation for Medical Research (AHFMR) to the IHE in July 2006 until September 2010. Where possible and available, other completed activities and reports until March 31, 2011 were also included. This evaluation anticipates and proactively addresses stipulations within two grant agreements between AHW and IHE:

- 2007 Health Technology Assessment (HTA) Grant: "The Institute shall cooperate and participate in the evaluation of the Project function as may be reasonably required by the Minister during the Term. The Minister anticipates at least one evaluation being required for the period of April 2007 to March 2009."
- 2008 Alberta Health Technology Decision Process (AHTDP) Grant: "The Grant Recipient shall participate in an evaluation of the Project operation, structure and outcomes completed by an independent third party retained by AHW, with the evaluation report to be submitted by October 2011."

This evaluation report describes the programs, services and outputs provided by the HTA Program at IHE for the fiscal years 2006 – 2011. As well, it describes the development and impact of relationships with specific target audiences and impacts of its products and services. The report is organized in the following sections:

- Evaluation approach;
- Grant descriptions and expectations;
- Findings;
- Summary and conclusions; and
- Appendices including all instruments and surveys used to gather data, as indicated in the body of the report.

¹ HTA Grant Agreement, Appendix A: Project Description. March 31, 2007.

2. Evaluation Approach

The overall approach for this evaluation was to build upon previously commissioned program evaluations and reviews while soliciting new information through key informant interviews, focus groups, surveys and document review.

2.1. Evaluation Purpose and Questions

The purpose of this evaluation is to identify the impact of the HTA Program since 2006 and its accountability for HTA related grant dollars received from AHW through a description and analysis of the program's products and services.

The evaluation questions include:

- Were grant requirements and expectations met?
- How effective is the HTA Program's adaptation to the HTA service needs in the province?
- To what extent does the HTA Program maintain a positive culture and alignment to generally accepted principles or values for HTA agencies?
- How productive is the HTA Program? What HTA products and services have been completed/conducted from the time of program transition to IHE?
- What reach (i.e., distribution) has been achieved for HTA products and services?
- What impacts are evident to date? What barriers were encountered to limit the impact of products and services? Has the HTA Program leveraged grant dollars and partnerships to achieve a greater than intended influence?
- What recommendations are offered to strengthen the HTA Program's products and services?

2.2. Conceptual Framework

A conceptual framework adapted from Lafortune et al. (2008)² was recommended to guide the overall program evaluation and approved by the Evaluation Steering Committee,³ based on the following rationale:

- This framework provides tangible indicators for evaluation, specific to HTA organizations or programs;
- In contrast to the usual logic model approach, this framework includes relevant "evaluative" (versus "descriptive") indicators for inputs/resources, such as internal capacity and structure, external support, responsiveness, innovation and learning, congruence with values/principles, and organizational climate; and
- This framework is consistent with, but substantively more detailed than, the more commonly used Buxton and Hanney *Payback* model.⁴

² Lafortune L, Farand L, Mondou I, Sicotte C & Battista R. (2008). Assessing the performance of health technology assessment organizations: A framework. *International Journal of Technology Assessment in Health Care*, 24:1, p. 76-86.

³ Egon Jonsson (CEO, IHE); Jacques Magnan (CEO, AIHS); Christa Harstall (Director, HTA Program, IHE)

This framework (Figure 1) suggests that alignment across and between functions translates into ultimate outcomes at both the health system and society levels and is a flexible and theoretically grounded tool to assess performance of an HTA program. The four functions include:

- HTA program adaptation;
- Culture/values maintenance;
- Production and reach; and
- Goal attainment/impact.

“Adaptation”, as defined by Lafortune et al. (2008),⁵ refers to the way in which the HTA Program interacts with its environment; the ability of the program to attract resources and mobilize external support but also to respond to population needs in accordance with social values, and the capacity to learn and innovate.

“Culture and values maintenance” reflects congruence with values and norms and contributes to organizational climate related to leadership, communication and teamwork. Lafortune et al. (2008) identify three core values that influence the performance of an HTA organization: independence, transparency and accountability.⁶

The “production” function reflects the volume and productivity of an HTA program and the quality and efficiency of their products and services. Related to the production function is the “reach” achieved by the HTA Program through its dissemination and knowledge transfer (KT) activities.

The “goal attainment” function concerns the strategic choices that the organization makes to effectively and efficiently meet its objectives. These include awareness and satisfaction with products and services; knowledge of the issue and desirable action; adoption, utilization and decisions related to reports; change in policy and practice; and impact on research through HTA skills and knowledge, methods and technology development, research networks, research leadership and production of primary research.

Our approach and indicators for evaluating the *impact* of the HTA Program also draw on elements of the Buxton/Hanney ‘payback’ model for assessing impact of health research.⁷ The payback approach offers:

1. A framework for describing the sequencing of the research process, from needs assessment to dissemination; and
2. A multidimensional categorization of potential benefits from health services research.⁸

⁴ Hanney S, Grant J, Wooding S, and Buxton M. (2007). Proposed methods for reviewing the outcomes of health research: the impact of funding by the UK’s Arthritis Research Campaign. In Hanney S, Buxton M, Green C, Coulson D and Raftery J. An assessment of the impact of the NHS Health Technology Assessment Programme. *Health Technology Assessment*, 11:53.

⁵ Lafortune L, Farand L, Mondou I, Sicotte C & Battista R. (2008). Assessing the performance of health technology assessment organizations: A framework. *International Journal of Technology Assessment in Health Care*, 24:1, p.80.

⁶ Lafortune L, Farand L, Mondou I, Sicotte C & Battista R. (2008). Assessing the performance of health technology assessment organizations: A framework. *International Journal of Technology Assessment in Health Care*, 24:1, p.81-82.

⁷ As used in Hanney S, Buxton M, Green C, Coulson D and Raftery J. (2007). An assessment of the impact of the NHS Health Technology Assessment Programme. *Health Technology Assessment*, 11:53.

⁸ Hanney S, Buxton M, Green C, Coulson D and Raftery J. (2007). An assessment of the impact of the NHS Health Technology Assessment Programme. *Health Technology Assessment*, 11:53, p. 28.

The model considers five categories of ‘payback’ from HTA research: knowledge production; research targeting, capacity building and absorption; informing policy and product development; health sector benefits; and broader economic benefits.⁹ Elements of these main payback categories were incorporated into the “goal attainment/impact” section of the conceptual framework for this evaluation.

The conceptual framework assisted in the development of the evaluation questions that could be posed about the HTA Program activities, services and products. A data matrix was developed (Appendix A) that covers the evaluation questions outlined in Subsection 2.1, and lists specific data sources (i.e., IHE and HTA Program staff, external key stakeholders) and data collection methods (i.e., surveys, document review, interviews, focus groups) needed to appropriately answer the evaluation questions. Each evaluation question has one or more indicators which lend themselves to quantitative or qualitative approaches.

2.3.Evaluation Design and Methodology

The evaluation was conducted over two stages: Stage 1 was completed in May 2010; Stage 2 was conducted between September 2010 and February 2011. Stage 1 drew on key informant interviews and yielded a stand-alone document focused on strategic considerations for the IHE’s HTA services. Highlights from the Stage 1 report specific to the HTA Program are incorporated into this evaluation, but are not covered comprehensively.

Stage 2 moved into an evaluation of the HTA Program’s accountability, processes and impacts. To inform the methodological design of this evaluation, a search was conducted of literature related to impact of health technology assessment organizations, agencies and programs. The search was restricted to English language publications from any year in published and grey literature databases.

The literature search yielded a core set of high quality, relevant publications on best practice in assessing impact of health technology assessment agencies. This literature informed the development of the conceptual framework and methods used in this evaluation of the HTA Program. In particular, Lafortune et al. (2008),¹⁰ built on the work of Wanke et al. (2006),¹¹ to identify the core functional dimensions according to which HTA programs should be assessed. These core functions, and their respective indicators of success, were adapted into a conceptual framework to guide the evaluation of the HTA Program.

Our methodology for executing the evaluation of impact function of the HTA Program is adapted from Hanney et al.’s (2007) assessment of the United Kingdom National Health Service (NHS) HTA Programme.¹² Based on an extensive literature review, the recommendations of a preparatory study, and pilot testing of various methods, Hanney et al. (2007) employed a two-pronged approach to evaluate the impact of the NHS HTA Programme according to these payback categories: a survey of lead

⁹ Hanney S, Buxton M, Green C, Coulson D and Raftery J. (2007). An assessment of the impact of the NHS Health Technology Assessment Programme. *Health Technology Assessment*, 11:53, p. 46.

¹⁰ Lafortune L, Farand L, Mondou I, Sicotte C & Battista R. (2008). Assessing the performance of health technology assessment organizations: A framework. *International Journal of Technology Assessment in Health Care*, 24:1, p.76-86.

¹¹ Wanke M, Juzwishin D, Thornley R and Chan L. (2006). An exploratory review of evaluations of health technology assessment agencies. *HTA Initiative #16*. Edmonton: Alberta Heritage Foundation for Medical Research – Health Technology Assessment Unit, p. 16.

¹² Hanney S, Buxton M, Green C, Coulson D and Raftery J. An assessment of the impact of the NHS Health Technology Assessment Programme. *Health Technology Assessment*. 11:53.

HTA project researchers and case studies of specific projects. The survey targeted researchers who had been funded by the NHS HTA Programme for a primary or secondary research project in the preceding decade and elicited self-reported qualitative and quantitative data on the various dimensions of payback. The case studies comprised detailed of 16 randomly selected projects; interviews with principle investigators and review of relevant documents augmented the data collected through the researcher surveys.

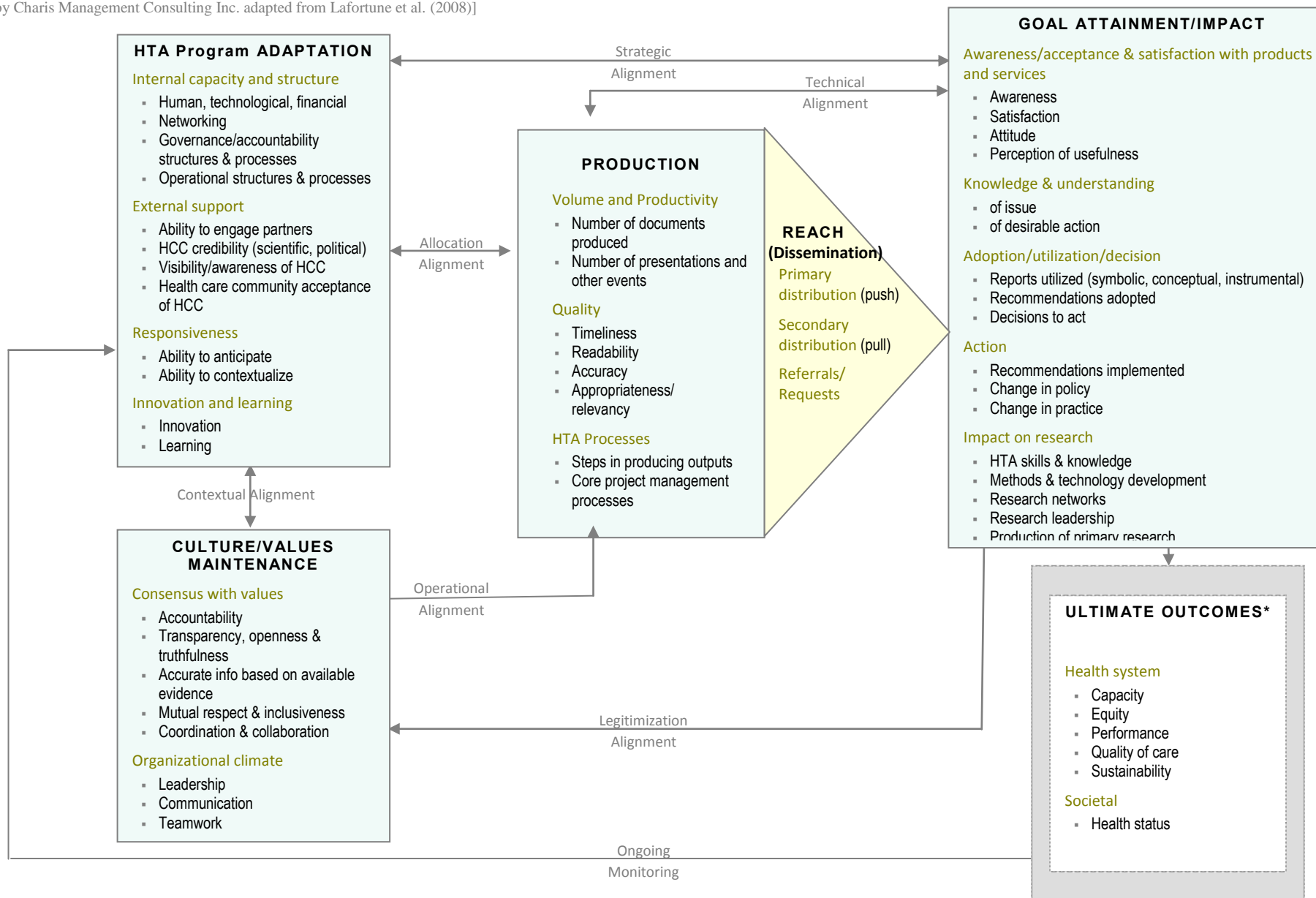
This evaluation incorporated Hanney et al. (2007)'s methodology to facilitate the assessment of the impacts of the HTA Program. We utilized a modified researcher survey and an adapted system for reporting, scoring and analyzing case studies.

The data collection for the evaluation involved five main processes:

- Review of key project documents, products and services;
- Interviews;
- Focus groups with HTA Program and IHE staff;
- Written surveys with IHE researchers for specific HTA and STEp reports; and
- Written surveys with external key informants.

Figure 1: Evaluation Framework and Indicators for Organizations/Programs Providing Health Information Products and Services

[by Charis Management Consulting Inc. adapted from Lafortune et al. (2008)]



2.3.1 Key Informants and Response Rates

This evaluation elicited input from a variety of key informants comprising two main groups:

- *Internal to IHE* (e.g., IHE and HTA Program staff, including researchers, economists, information specialists, managers and support staff); and
- *External to IHE* (e.g., requesters, recipients and users of HTA products; representatives of other HTA organizations; expert advisors and reviewers; and other key stakeholders at provincial, national and international levels).

This report incorporates input from a total of 46 unique individuals, as described in Table 1. A list of all informants is provided in Appendix B. The details of respondent numbers for each data collection method (interviews, survey, focus groups) are presented in Table 2. Some key informants participated in more than one stage or method of data collection. For example, a few individuals were interviewed in Stage 1 of the evaluation and were subsequently contacted again in Stage 2 for further contributions to different questions, or details for particular case studies. Another group of respondents participated in both a written survey and an interview. Because some individuals may be counted as respondents for more than one data collection method, the total numbers in Table 1 and Table 2 do not align.

Table 1: Overall Key Informants by Type

Internal	External			TOTAL
IHE	Provincial	National	International	
18	17	6	5	46

Table 2: Total Respondents/Participants by Data Collection Method

Data Collection Method	Total contacted	Response Rate	Total Respondents / Participants	Respondents/Participants by Type			
				Internal	External		
				IHE	Provincial	National	International
Interviews (Stage 1)	19	89.5%	17	4	7	4	2
Interviews (Stage 2)	16	100%	16	4	12	-	-
Researcher Survey	5	100%	5*	5	-	-	-
Written Survey	14	71.4%	10	0	5	2	3
Focus Groups	14	92.86%	13	13	-	-	-

* The primary researcher for each report was contacted to fill out one questionnaire per report. Respondents were encouraged to consult with other researchers who had been involved in the project. Therefore, in some cases, two or three respondents collaborated to complete one questionnaire. Only the primary researchers/respondents are counted here. Some researchers were the lead on multiple reports and therefore filled out more than one survey.

2.3.2 Document Review

Following discussions with the HTA Program Director, the evaluator obtained copies of all agreements with AHW; formal annual reports; administrative data related to number and type of requests, website statistics, and project timelines; samples of conference proceedings; select reports [hard copy]; IHE and HTA Program promotional materials; summaries, frameworks and checklists on HTAs submitted to the International Network of Agencies for Health Technology Assessment (INAHTA); and other documents as described in Appendix C. The IHE website provided access to publically available HTA reports and links to information about other activities completed to date for the current fiscal year.

We also reviewed reports of previous evaluations that had been commissioned. While seven formal and informal impact or process evaluations have been done of the HTA Program overall, only two have been conducted since the transfer of the HTA Program to IHE (including Stage 1 of this work). However, given that current core HTA Program staff are the same people who were in the HTA Program while it was at AHFMR when the evaluations occurred, it is constructive to see how the program has used and built upon previous knowledge and experience gained. The Charis team read all reports and used the recommendations to inform interview and survey guides.

2.3.3 Interviews

Interviews were semi-structured, guided by a common set of questions derived from the requirements of the data matrix (Appendix A) and organized into a question matrix (Appendix D). Key informants were asked to think about the HTA Program overall when responding to the questions using their knowledge and experiences as a result of interacting with the program, to more fully describe aspects explored. The interview guide comprised several categories including:

- Networking, collaboration and engagement;
- Operational processes;
- Governance;
- Capacity for learning;
- Principles and values;
- HTA reports;
- Impact; and
- Overall.

Interviews were conducted in two stages. Stage 1 was a key informant consultation that focused on emerging trends in HTA and strategic options for the HTA Program. It included the perspectives of key informants from within and outside Alberta. Fourteen interviews were conducted with 15 external key informants as well as two interviews with four internal IHE staff for a total of 16 interviews.

Stage 2 included key informant interviews that focused on the HTA Program and its specific products and services. The Evaluator identified 16 key informants to be interviewed: 12 external and four internal to the HTA Program. All external informants participating in interviews in this stage were from within Alberta. In addition, several meetings were held with the HTA Program Director to clarify data reviewed and/or provide needed elaboration and these are not included as formal interviews though she is

included in the total number of informants. A few of the key informants interviewed for Stage 1 were interviewed again in Stage 2 to probe additional topics.

Interviews were conducted by telephone or in-person and typically lasted about an hour. In three situations, two key informants were interviewed together as they were on the same project, for a total of 13 interviews. Notes of the interviews were analyzed and used to identify key themes and other findings reported here.

2.3.4 Focus Groups

A common set of questions guided the focus group sessions (Appendix E). Overall categories of questions included:

- Overall HTA Program;
- Program structures and processes;
- Collaboration;
- Impact;
- Contribution to IHE vision; and
- Future directions.

Fourteen HTA Program staff, including nine research associates, information specialists and administrative personnel, and five IHE economists, were invited to participate in focus group sessions. As the economists are not involved in all aspects of the HTA Program it was decided that separate focus groups were warranted. One program staff member participated by phone as she is located in another geographical location. Two others were unable to attend the staff focus group and were interviewed at separate times; their comments were ultimately integrated with others. One of the economists did not participate in the Stage 2 focus group as he had been interviewed in Stage 1. Overall, 13 staff participated in focus groups.

Focus group sessions each lasted approximately one hour and were recorded, transcribed and themed for analysis purposes.

2.3.5 Written Survey

The written survey included closed and open-ended questions designed to yield both aggregate quantitative data and more in-depth qualitative evidence. Two versions were created; one for Alberta-based key informants and another for national and international informants. The Alberta version included specific reference to Alberta stakeholders of which national and international informants would not be aware.

Both versions were created as either electronic or hard copy formats to facilitate ease of completion. The Alberta version is included in Appendix F.

The survey comprised eight questions separated into six key categories as follows:

- Interaction with the HTA Program;
- HTA Program responsiveness, engagement and networking;
- HTA Program principles and values;
- HTA Products: awareness and use;
- HTA Products: quality; and
- Final comments.

The interaction category asked how the informant knew of the HTA Program and whether they have/had been involved in a specific project/program. The responsiveness, engagement and networking category asked about levels of awareness and the degree to which the HTA Program collaborates with a range of partners and communities. The degree to which the HTA Program adheres to common HTA principles and values (i.e., accountability, transparency, independence, scientific rigour and mutual respect) was explored. A listing of products (i.e., HTA reports, STEp reports, books and other products) produced by the HTA Program, including specific titles within some categories, was provided and informants were asked about their awareness, use and perception of usefulness of the products. Finally, the quality category was comprised of questions on a number of dimensions including readability, timeliness, accuracy, appropriateness, relevance, format, content and practicality. These dimensions were adapted from those identified by Lafortune et al. (2008) as particularly relevant to HTA outputs.¹³

Fourteen key informants were invited to complete the written survey. Five of these were also interviewed and the survey was sent via electronic mail prior to their interview. For the remaining nine who were invited to complete just the survey, an introductory letter was sent via electronic mail from the HTA Program Director outlining the purpose of the evaluation and introducing the evaluator. The survey was attached with instructions for completion. These key informants were national and international individuals or organizations who knew of the HTA Program and/or had collaborated in some aspect of activities over the past five years.

Of the 14 invited to complete the survey, 10 responded; one declined due to work commitments at the time and while a replacement name was provided by the HTA Program Director, this person also did not respond. Five of the 10 were from within Alberta, two were national and three were international respondents.

¹³ Lafortune L, Farand L, Mondou I, Sicotte C & Battista R. (2008). Assessing the performance of health technology assessment organizations: A framework. *International Journal of Technology Assessment in Health Care*, 24:1.

2.3.6 Researcher Surveys

A survey (Appendix G) for the principle investigators of HTA Program projects was adapted from Hanney et al. (2007).¹⁴ This approach was facilitated by the stability and availability of the researchers within the HTA Program. The survey sought answers related to:

- Available “reach” information;
- Use of the research in the health system;
- Use of findings in policy/decision-making;
- Changes in practice; and
- Factors influencing the utilization of research publications/presentations.

The questionnaire was distributed to the lead researchers for HTA or STEP¹⁵ reports completed (up to at least the final draft) between 2006 and December 2010 which reflects the time period during which funding for HTA has resided within IHE. One survey was distributed for each eligible project identified at the time. Some researchers were the principle investigators for multiple projects during this period, and therefore completed more than one survey. Reports included:

Health Technology Assessments

- Corabian C, Ospina M, Harstall C. *Treatment for Convicted Adult Male Sex Offenders*, July 2010;
- Ospina M, Harstall C, Dennett L. *Sexual Exploitation of children and youth over the Internet* (2010)
- Guo B, Harstall C. *Exercise testing for the prediction of cardiac events in patients with diabetes*, May 2009;
- Bergerman L, Corabian P, Harstall C. *Effectiveness of organizational interventions for the prevention of occupational stress*, January 2009;
- Guo B, Corabian P, Harstall C. *Islet transplantation for the treatment of type 1 diabetes – an update*, December 2008; and
- Corabian P, Harstall C. *The role of rapid fetal fibronectin assay in the management of spontaneous preterm labour*, January 2008.

STEP Reports

- Guo B, Yan C, Corabian P, Chatterley P, Harstall C. *Insulin Pump Therapy (IPT)*, January 2010;
- Moga C, Ospina M, Harstall C, Kingston-Reicher J, Chuck A. *Human papillomavirus (HPV) testing in Alberta*, May 2009;

¹⁴ Hanney S, Buxton M, Green C, Coulson D and Raftery J (2007). An assessment of the impact of the NHS Health Technology Assessment Programme. *Health Technology Assessment*. 11:53.

¹⁵ STEP Reports were introduced in 2006/07 to respond to the needs of the Alberta Health Technology Decision Process (AHTDP). These reports focus on providing evidence relating to the first three components of the Decision Process’ analytical framework which are Social and system demographics, Technology effects and effectiveness and Economic Evaluation. Final reports need to be submitted within 90 days.

- Chuck A, Yan C. *Assistive reproductive technologies: a literature review and database analysis*, January 2009;
- Guo B. *Newborn screening for cystic fibrosis*, March 2007 (technical report); and
- Schopflocher D, Corabian P, Eng K, Lier D. *The use of the automated auditory brainstem response and otoacoustic emissions tests for newborn hearing screening*, March 2007.

Ineligible projects included:

- Those that were discontinued for any reason;
- Those where the charter is still in draft;
- Those where reports were not required;
- Information papers;
- Books or book chapters; and
- All Information Requests and QwikNotes.

Independent of this evaluation, researchers routinely complete the International Network of Agencies for Health Technology Assessment (INAHTA) HTA Impact Framework six months after the publication date of an HTA report (not STEp or other reports). The completed forms are sent to the INAHTA Secretariat for posting with the report itself. These forms represent additional information on impact.¹⁶

2.3.7 Case Studies

Detailed comprehensive case studies were integral to this evaluation. They provide more detailed and robust examples of impact, including the factors associated with impact and the best methods to assess impact of the work undertaken by the HTA Program.

Hanney et al. (2007) used a stratified random selection approach to identify cases for their evaluation of the NHS HTA Programme.¹⁷ Given the relative size of the HTA Program at IHE, and the specifics of its product line and funding agreements, a purposive approach to case study selection was deemed more appropriate for this evaluation. The following criteria were considered in the choice of case studies:

- *Source of request* (e.g., AHW, provincial entities, educational institutions, other health administration and professionals);
- *Source of funds* (e.g., AHTDP Capacity Building Grant, Grant in support of provincial HTA service);
- *Alignment with core activity* (e.g., Health System Support; Capacity Building and Collaboration; Research and Knowledge Translation; Methodological Development; Skills Development; Collaboration, Networks and Exchange Activities);
- *Product type* (e.g., Assessment reports [HTA Report; Rapid Assessments; Information Paper], Information Requests or STEp Reports);

¹⁶ One of the records of the impact of products is INAHTA Impact Frameworks which are forms completed at a set interval after the completion of the project by the requesters. These INAHTA forms are only completed for HTA reports. Only two such Impact Frameworks were available for this evaluation.

¹⁷ Hanney S, Buxton M, Green C, Coulson D and Raftery J (2007). An assessment of the impact of the NHS Health Technology Assessment Programme. *Health Technology Assessment*, p.59.

- Length of *time since product completed* (The bulk of activity should have occurred since 2006 when the HTA program moved to IHE);
- Level at which *decision making* was directed (e.g., policy, organizational or program level); and
- *Perceived degree of success* of implementation (e.g., a project that appears to be very successful and another where barriers were encountered so that conditions contributing to these can be explored).

Based on the above criteria, the following three initiatives were selected for case study:

1. Sex Offenders Treatment Program (July 2010 HTA Report);
2. Human Papillomavirus (HPV) testing in Alberta (May 2009 STEp Report); and
3. The Ambassador Program.

Data collection sources for the case studies included: interviews with the lead researcher(s) within the HTA Program and two to three external stakeholders who were involved in each of the projects as identified by the lead researcher or the HTA Program Director; researcher written survey results; review of the final report(s) and/or publications coming out of the project/program; any review of any other relevant documents.

In our key informant interviews, we probed for information related to the following indicators: satisfaction, perceived quality, perceived usefulness, reported change in knowledge and understanding, adoption/use, action and research. In addition to the above impact variables, interviews probed for perceptions of key success factors and challenges/barriers as well as impacts.

Case studies were written up in accordance with the HTA stages, from needs assessment to impacts, used by Hanney et al. (2007) in their evaluation of NHS Health Technology Assessment Programme.¹⁸ Content was verified by each of the lead researchers. Case studies were then scored based on achievements in payback four categories as defined by Hanney et al. (2007):

- Knowledge production;
- Research benefits;
- Informing policy making; and
- Informing practice.¹⁹

In accordance with the Hanney et al. (2007) methodology, each category was scored using two scales. Two evaluators independently scored each case study to ensure consistency. A cross-case study analysis was completed.

¹⁸ Hanney S, Buxton M, Green C, Coulson D and Raftery J (2007). An assessment of the impact of the NHS Health Technology Assessment Programme. *Health Technology Assessment*, 11:53.

¹⁹ Hanney S, Buxton M, Green C, Coulson D and Raftery J (2007). An assessment of the impact of the NHS Health Technology Assessment Programme. *Health Technology Assessment*, 11:53, p.172-173.

2.4.Evaluation Limitations

The following limitations are associated with the approach and methods used in this evaluation project:

- Descriptive data are from annual reports and as the 2010/11 fiscal year is still in progress, activities in this period are under reported.
- Annual reports are fairly consistent in formatting but do not always list every conference, workshop or presentation that is attended or where the HTA Program staff present. Often they are listed as an aggregate number (i.e., staff did 22 presentations) and details on the degree of importance relative to the audience and topic are missing.
- Staff were supportive of this evaluation and readily responded to requests for more information or clarification. Given the complexities of the program and the span of years we were reviewing, additional blocks of time with select individuals would have been helpful but the evaluator was cognizant of taking them away from increasing pressures of their day-to-day work and relied on existing documentation instead.
- Because HTA Program activities and reports span a broad range of fields, both collaborator influence and program impacts are highly dispersed, making it hard to find a substantive number of core individuals who could inform the various dimensions evaluation. For some items, the small number of informants represents a limitation on the extent to which conclusions can be drawn from the findings.
- In accordance to the methodology employed by Hanney et al. (2007), the primary source of evidence on the impact of the HTA Program's work, is the perception of the HTA researchers responsible for the products, augmented by input from external key informants and other documentation where available. For some products, informants did not feel they had adequate information regarding the products' use and impact. The limitations of this methodology for assessing impact are further discussed in Section 4.4.5.

3. Grant Descriptions and Expectations

The IHE has two grant agreements with AHW for the support of the provincial HTA service and the Alberta Health Technology Decision Process (AHTDP). Both agreements include provisions for building capacity for the production, dissemination, and use of HTA in health policy and practice. In order to better understand the environment within which the HTA Program exists, and to contextualize its activities, a short summary of the history of HTA in Alberta can be found in Appendix H.

The initial grant for the provincial HTA Program was in effect July 1, 2006 – March 31, 2007 with a five year renewal granted for March 31, 2007 - March 31, 2012. The AHTDP grant was initiated March 2006 with a renewal for the time period June 1, 2008 – March 31, 2012. A one-time addition to the existing grant (in the amount of \$200,000) was provided to IHE in 2007 to develop a strategic plan for HTA in Alberta (reflecting the transition from AHFMR to IHE), including a proposal to establish the Health Evidence Network of Alberta (HENA) that would bring research agencies practitioners, health authorities, and others together to more effectively link evidence to health policy and practice.

Each grant and related expectations are described below. The ways in which the HTA Program has addressed these grant agreements are covered in the discussion of findings (Section 4), and are summarized in Table 21, in the final section of this evaluation (Section 6).

3.1. HTA Program Grant

The 2007-2012 HTA grant agreement required the IHE to operate a provincial HTA program within Alberta and undertake other HTA activities. The primary goal of the program is to maintain and operate a provincial HTA function that fulfills the requirements of the Minister and supports the needs of the health system.

The objectives of the program reflect the language in the agreement and include:²⁰

- To maintain, promote and operate a provincial HTA program in a credible, independent, and transparent manner in keeping with best practices and standards.
- To establish visible and accessible points of entry for requesters and users.
- To maintain and refine a prioritization mechanism in keeping with the needs and priorities of the health system.
- To continue to maintain and refine the line of HTA products to reflect the needs of receptor organizations.
- To continue to maintain standard dissemination practices and to develop unique dissemination strategies for incorporating evidence into practice and health policy.
- To maintain and enhance linkages on the provincial, national and international levels for sharing and learning new methodological practices and dissemination strategies.
- To conduct research to inform and improve the operations of the HTA program.
- To enhance capacity for doing and using HTAs through consultation, collaboration and coordination.
- To participate in evaluation of the HTA Program activities as directed by AHW.

Requests funded under this grant can come from a variety of sources, including the Alberta government, AHS and service providers and many are comprehensive HTAs that take six to twelve months (or more) to complete. Some HTAs are internally generated and are in response to emerging issues in the health system. All projects generate a detailed “scoping” document with associated timelines and approaches to be used.

An annual report is required. There are no stipulations in the grant agreement related to publication of findings.

²⁰ HTA Program and AHTDP Initiatives Annual Report, 2007-2008.

3.2. AHTDP Grant

The description that follows is extracted from the 2008 annual report as well as reports from other years and data sources.

This agreement between IHE and AHW does not require IHE to create or maintain a separate unit with staff dedicated to the support of the AHTDP. IHE supports AHTDP projects through project teams that may include research associates from the HTA Program, health economists from the Decision Analytic Modeling Unit, and others, as needed.

The AHTDP agreement states two main purposes: 1) to build capacity in existing programs to support the decision process, and 2) to enhance access to HTA and health economics resources for the benefit of the provincial health system.

The objectives of the agreement related to AHTDP support are:

- To ensure appropriate and sufficient resources are available for the completion of high quality and timely review of technologies identified by the Alberta Advisory Committee on Health Technologies (AACHT); and
- To promote evidence informed decision-making and service delivery within the Alberta health system.

Technologies or topics to be reviewed are those recommended by the AACHT and, once approved by AHW, are referred to IHE or one of the other partner agencies that also support the decision process.²¹ Once accepted by the HTA Program, a formal project charter is developed that defines the scope, analytical and information needs, and timelines for the review.

Rapid response products for the Decision Process are called “STEp Reports” and focus on providing evidence relating to the first three components of the Decision Process’ analytical framework:

- **S**ocial and system demographics;
- **T**echnology effects and effectiveness (including environmental factors); and
- **E**conomic evaluation.

Researchers and information specialists from the HTA Program primarily do the “S” and “T” components and the economists complete the “E” portion.

The fourth component of the framework, **P**, refers to public policy (includes political, legislative and ethical dimensions) and that section of the report is the responsibility of AHW. A synthesis report is written prior to recommendations going forward to the AHW Executive Committee for decision. The timelines for these reports are generally 90 days, as stipulated by AHW.

This grant has the expectation that the HTA Program will maintain the capacity to produce up to three commissioned STEp reports or equivalencies in any given year.

²¹ IHE is one of three partner agencies including those located at the University of Alberta and University of Calgary.

Building capacity, the other core activity related to the second objective, ties into a key element of the strategic plan for HTA in Alberta, even though the AHTDP agreement was in place before work on the strategic plan was contemplated. The AHTDP agreement gives IHE latitude to determine what specific actions it pursues to build capacity.

This agreement has a clause about publication of findings that stipulates that IHE may only publish for academic purposes as long as they provide the Minister with written notice and copies of any proposed publication at least 30 days in advance of the proposed publication and that the Minister does not object to publication of findings within 30 days of receipt of the notice. If there are any objections then publication must be postponed to accommodate the Minister's reasonable requests for changes. Publication bans may be implemented dependant on the data source.

4. Findings

The findings of this evaluation have been organized according to the sections of the Conceptual Framework (see Figure 1): Program Adaptation; Culture and Values Maintenance; Production and Reach; and Goal Attainment and Impact. Findings from the surveys, focus groups, interviews and document review are integrated with the findings from an earlier stage of the evaluation.

4.1. Program Adaptation

"Adaptation" refers to the HTA Program's capacity to maintain competence and flexibility in an evolving environment. In line with the Conceptual Framework (Figure 1), Program Adaptation is assessed according to four main dimensions.

- *Internal capacity and structure* includes the program's human capacity and its governance and accountability structures and processes.
- *External support* refers to the HTA Program's networking and collaboration functions, and the awareness and acceptance of the program in wider health care and policy-making communities.
- *Responsiveness* points to the HTA Program's ability to identify and address the needs and objectives of stakeholders through anticipating issues, contextualizing information and ensuring local relevance.
- *Innovation and learning* highlights the HTA Program's capacity to innovate and change the field of HTA, and to develop new approaches to adapt to a changing environment.

4.1.1 Internal Capacity and Structure

Human resources are one component of the inputs required to “carry out activities, produce outputs and/or accomplish results”, while organizational structures are the mechanisms used to “organize and account for activities”.²² The HTA Program’s complement of staff and its accountability and governance structures contribute to its internal capacity.

Staffing

The HTA Program is staffed by a core complement of research associates, information specialists, a director and an administrative assistant. The information specialists are seconded to IHE from the University of Alberta for 80 percent of their time and 80 percent of that time (or 0.6 FTE) goes to the HTA Program. The core team draws upon economists from the Decision Analytic Modeling Unit and additional contract staff, as needed, to meet their objectives. Between 2005-2006 and 2010-2011, staff turnover has been very limited and the number of full time equivalents (FTEs) has averaged 7.4 FTEs/year. In 2010-2011, an additional full time research associate was hired bringing the core staff complement to 8.3 FTE not including the Decision Analytic Modeling Unit staff (Table 3, page 18).

Three individuals joined the HTA Program for periods between three and 11 months as part of the HTA skills development initiative, including a delegate from China who was responsible for the HTA Program within their health ministry.

The HTA Program and its receptor groups have benefited from this stable, consistent group of core staff. As described by key informants and noted in Section 4.3.4, core staff are intimately aware of HTA and the complexities that have arisen as part of its evolution as a field. Personal and staff development efforts have resulted in an overall team that is highly skilled and responsive to the needs of the HTA community provincially, nationally and internationally.

Participants in the staff focus group consistently emphasized the cohesiveness of their team, and the efficiency they have developed over years of working together. The high retention of core staff suggests general satisfaction of the team with their work and workplace. The low turnover may have resulted in program efficiencies as efforts needed for the hiring, orientation and training processes have been minimal and project teams have not been disrupted negatively.

Two external and one internal respondent noted that the capacity of the unit is limited by its numbers but “...the HTA team is very productive for its small size.” Two respondents felt the team might benefit from the addition of more junior research assistant positions.

²²Wanke M, Juzwishin D, Thornley R and Chan L. (2006), An exploratory review of evaluations of health technology assessment agencies. *HTA Initiative #16*. Edmonton: Alberta Heritage Foundation for Medical Research – Health Technology Assessment Unit, p. 16.

Table 3: HTA Program Staffing by Fiscal Year

	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11
Core Staff						
Director	1.0 FTE	FT x 9 mos Left Dec 31/06	1.0 FTE	1.0 FTE	1.0 FTE	1.0 FTE
Project Director	1.0 FTE	1.0 FTE Became Director	-	-	-	-
Administrative Assistant	1.0 FTE	1.0 FTE	1.0 FTE	1.0 FTE	1.0 FTE	1.0 FTE
Research Associate (employed)	3.0 FTE	3.0 FTE	3.0 FTE	3.0 FTE +0.6 x 3 mos	3.6 FTE	3.6 FTE +1.0 as of Oct/10
Research Associate (contracted)	0.5	0.5 FTE	0.5 FTE	0.5 FTE	0.5 FTE	0.5 FTE
Information Specialist	AHFMR 1.2 FTE	AHFMR 1.2 FTE	1.2 FTE	1.2 FTE	0.9 FTE (vacancy)	1.2 FTE
TOTAL (as of fiscal year end)	7.7 FTE	7.7 FTE	6.7 FTE	7.0 FTE	7.0 FTE	8.3 FTE
Other staff						
IHE Economists	-	1 FTE	~2 FTE (as of July)	~2 FTE	~2 FTE	~2 FTE

Expanded HTA Capacity

The HTA Program, through the economists, has the capacity to model economic data to the local context; a service that two informants identified as particularly important for Alberta decision-makers. One respondent described health economics capacity as a “unique advantage” of the HTA Program at IHE.

A number of informants, at least three internal to IHE and two external to IHE, noted that the HTA Program has the potential to continue contributing to the development of HTA as a field, particularly through the further development of their economic modelling capacity. A few respondents felt that IHE now has a critical mass of researchers and economists who can respond more effectively and with a broader scope and depth to the questions facing decision makers. As one respondent pointed out, when the HTA Program was housed at AHFMR, the economic component of STEp reports had to be outsourced, whereas “now in IHE there’s the capacity to do the whole report.”

Enhanced opportunities to help in the process of identifying future priority areas for HTAs in Alberta and data mining on existing provincial data were seen as desirable and doable as a result of the expertise at IHE but barriers related to data access and use prohibit these at this time. All four economists who participated in the focus group commented on the challenge of data access and noted that better use of existing data could improve HTA timelines.

Accountability Structure

The expectation embedded in the AHW-IHE grants is that the grant holder will provide high quality products that assist with decision making and will be accountable to Albertans through sound business practices and fiscal responsibility.

The HTA Program reports directly to the Executive Director and CEO of the IHE. The IHE is governed by a Board of Directors with representatives from academia, industry, provincial government and public authorities.²³ In the first stage of interviews for this evaluation, three key informants questioned the extent to which the HTA Program can maintain independence and credibility given a governance model that includes industry. On the other hand, at least one informant argued that industry involvement in IHE was not a problem; “that is certainly not the view in the UK; NICE expert committees have appropriate industry representation.”

The HTA Program is required to provide quarterly and annual program/activity and financial reports to Alberta Health and Wellness as per its two major grant agreements.²⁴ Accordingly, the program has regularly submitted to AHW comprehensive reports outlining all activities, services and products produced during each fiscal year, along with financial reports.

The process of compiling the annual reports involves an ongoing review of processes including administrative tracking that are adjusted to meet the needs of the reports. The HTA Program core staff routinely review processes and services with a quality improvement mindset which was specifically and positively acknowledged by three internal and one external stakeholder when interviewed as part of this evaluation. An internal HTA handbook is updated regularly to ensure that best practices are maintained. As discussed in Subsection 4.1.4, the HTA Program has also commissioned a number of independent evaluations of their activities.

4.1.2 External Support

The capacity to engage with partners and stakeholders, build and sustain networks and mobilize support is a key aspect of program adaptation.²⁵ The findings of this evaluation suggest that as an organization, IHE strengths are reflective of strong and productive affiliations with other HTA organizations including HTAi.

As noted earlier, external key informants from within Alberta, as well as nationally and internationally, were asked via a written survey to rate how the HTA Program performs in relation to awareness, networking, collaboration and other qualities. Only Alberta-based informants were asked about networking and collaboration with Alberta partners.

Respondents were asked to rate each statement on a scale of 1 – 4 with 1 being “poor” and 4 being “excellent” (Table 4). Of note is that the total number of people responding to the question using a quantitative scale is few, therefore the reader is cautioned regarding generalization of these findings to a broader constituent of stakeholders. Additionally, some of the survey questions elicited a substantial

²³ Institute of Health Economics, (2011), Board of Directors: Public-Private Partnership, www.ihe.ca/about/board-of-directors-1.

²⁴ AHTDP Grant Agreement 2008; HTA Grant Agreement 2007.

²⁵ Lafortune L, Farand L, Mondou I, Sicotte C & Battista R. (2008). Assessing the performance of health technology assessment organizations: A framework. *International Journal of Technology Assessment in Health Care*, 24:1.

number of “unable to comment” answers, likely because for many of the key informants, their interaction with the HTA Program centred on one or two specific projects, resulting in limited knowledge of more general questions. Given the broad range of topics covered by HTA reports, collaborator influence is widely dispersed making it difficult to find a substantive core of individuals who could inform this evaluation.

Generally, awareness of the HTA Program was rated as “good” to “excellent” by the largest portion of respondents. Awareness among national and international HTA communities received higher ratings than that within Alberta HTA communities.

Lower reported levels of awareness within the province may be explained by a number of factors including the specific individuals who responded to this survey and the current Alberta context for HTA. For example, two respondents who were interviewed felt there was poor engagement on projects due to a lack of awareness of the HTA process within the Alberta health care community and clinicians specifically, and it was noted that development of a formal communication strategy to engage groups such as the Alberta Medical Association, AHW, CARNA and others, would be beneficial.

“There are new people with new responsibilities in AHS who don’t know these resources. The HTA Program needs to make them aware and help them understand the relationship with the HTA unit at AHS.”

Table 4: Key Informant Perceptions of Awareness, Networking and Collaboration

	Poor (1)	Fair (2)	Good (3)	Excellent (4)	Unable to comment	Number of respondents
The level of awareness of IHE’s HTA Program amongst:						
Its partners (e.g., University of Alberta, University of Calgary, AHW)			2	2	1	5
The Alberta health care community		3	2			5
The HTA community nationally			4	2	4	10
The HTA community internationally			4	1	5	10
The HTA Program’s networking with:						
Alberta partners			2	3		5
National partners			2	2	6	10
International Partners			1	3	6	10
The HTA Program’s collaboration with:						
Alberta partners			2	3		5
National partners			2	2	6	10
International partners			1	3	6	10

Networking and collaboration are significant components crucial to conducting HTA activities and the HTA Program was rated “good” or “excellent” for the networking and collaboration they do within Alberta and beyond.

The concept of collaboration was further explored during the focus group sessions and with the external key informants through interviews. Focus group participants were asked about collaboration externally and interviewees were asked to discuss the value of collaboration among the HTA Program and the various projects or programs with which they related, including partner groups and the potential users of the assessments. Overall, respondents were highly supportive of increasing collaboration among all partners.

The areas of collaboration identified most frequently were in relation to the following broad categories:

- Access to experts; and
- Collaboration process.

Each is discussed in turn. In addition, the HTA Program’s involvement in external linkages and network activities are discussed.

Access to Experts

Respondents overall felt that access to and the right mix of experts (either directly through members on the Expert Advisory Group [EAG] or external reviewers of draft final reports, or indirectly through HTA Program staff access via IHE relationships with academia and industry) was of tremendous benefit particularly when clinicians are involved in the HTA process.

“The innovation with this project was that we really asked for a clinician to be brought on...it was very helpful...to understand better the context and the clinical aspects which are very important for clinicians.”

“The affiliation with professors at U of A and U of C is unique dimension of having HTA at IHE...gives you another expert...sometimes projects are unique and have unique challenges and you need to consult with other experts.”

“....we don’t need more policy makers at the table. We need clinicians and researchers who know what is good research in this area or not.”

It was suggested by one external respondent that non-clinical stakeholders, for example, family members of individuals potentially affected by the topic of the HTA, may be important “experts” to be included at various stages in the future.

Collaboration Process

External informants strongly emphasized the positive collaborative processes that occur between requesters and the HTA Program, in particular with the Director who is often the main contact. They noted a number of characteristics of good collaboration processes including: clear work objective; well managed meetings; well organized; and impressive expertise on the team conducting the HTA. No one

area was mentioned more than another. The Ambassador Program was cited most frequently as being very collaborative; one informant noted that “talking helps”.

“[The Ambassador Program]....was open to our needs and purpose for this collection and stayed in touch...communicated frequently...”

Two people commented on how collaboration processes could be improved. One informant noted that “perhaps HTA in Alberta may work more collaboratively with other respected HTA organizations to streamline the processes and expedite the products more efficiently”. The HTA Director reported that they often ask if other HTA organizations or jurisdictions have already done something in a specific area. Often the research questions are not identical but any useful background work will be taken into consideration. For example, work on insulin pump therapy was being done by the HTA Program for Assessment of Technology in Health at McMaster University and another team in Quebec but both groups looked at different things or different populations (i.e., paediatrics). With HPV for cervical cancer, IHE used the Canadian Agency for Drugs and Technologies in Health (CADTH) report on this topic but because the focus was different; work on the technical component and the economic modeling was needed.

Another respondent spoke to the challenge of working across multiple organizations when implementing unique knowledge transfer (KT) strategies for dissemination. The “risk avoidance” comfort level of the collaborating organizations involved in the example cited varied, resulting in a KT strategy that was ultimately not acceptable to all despite a significant investment of time and resources. The strong collaboration developed over many years allowed the partnering organizations to discuss this honestly, in an atmosphere of trust, and a decision on the immediate course of action to be taken was acceptable to all. Without the collaborative nature of the HTA Program and the people involved, relationships could have been jeopardized and ongoing initiatives put at risk.

Linkages

The HTA Program maintains linkages on provincial, national and international levels for sharing new methodological practices and dissemination strategies in a number of ways:

- Membership in key organizations;
- Linking with HTAi by virtue of IHE being the host for its corporate offices and the editorial office of its journal;
- Presentations;
- Publications (peer reviewed journals; Evidence Briefs; INAHTA Briefs Compilation); and
- Follow-up to targeted requests for information of which >75% come from outside Canada and (often) other HTA agencies.

Quarterly updates are shared with the CADTH and the HTA Exchange²⁶ so these organizations are aware of what others have done or are in the process of doing as a means for minimizing duplication. Wherever possible, HTA reports draw and build upon the work of others in this global community.

²⁶ Canada’s Health Technology Analysis Exchange is a forum for information sharing and collaboration among its member agencies which includes the national HTA agency, provincial HTA agencies, and university or hospital based HTA units.

All staff have personal and professional networks and as such are well positioned to be ambassadors for the HTA Program both officially and unofficially.

Network Activities

In December 2007, the Health Evidence Network of Alberta (HENA) was launched but for a number of reasons, including development of the HTA strategic plan and upcoming changes to the health system, the network did not formally come about. Efforts in this area shifted to other network-type activities that would more effectively link evidence to health policy and practice.

Over the course of this agreement, the HTA Program undertook and/or collaborated on a number of networking initiatives including events sponsored or led by IHE:

- Discussion paper:
 - *Alberta Program for Comparative Effectiveness in Health Care: A Proposal for an Enhanced Alberta Model*
- Reports:
 - *Comparative Effectiveness: An Overview* (published by IHE)
 - Policy and other reports to government and provincial advisory committees (for example, Minister's Advisory Committee on Health [MACH])
- Consensus Conferences:
 - *Healthy Mothers, Healthy Babies* (May 2007)
 - *Fetal Alcohol Spectrum Disorders* (systematic review in support of Expert Panel)
- Books:
 - *Prevention of Fetal Alcohol Spectrum Disorder FASD: Who is Responsible?* (2011)
 - *Determinants and Prevention of Low Birth Weight: A Synopsis of the Evidence* (2008)
- Innovation Forums:
 - *Paying for What Works* (December 2, 2008)
 - *Making Difficult Decisions* (May 25, 2009)
 - *Maximizing Health System Performance: Cost Containment and Improved Efficiency* (December 1, 2009)
- Methodology Forums:
 - *Prioritizing Methodological Research in Evaluation of Health Technologies* (September, 2010) sponsored by IHE in consultation with CADTH, NICE,²⁷ AHW and industry partners where stakeholders involved in the production and use of evidence were brought together to discuss methodological challenges in evaluation of technologies and to identify priorities for research methods development in Canada. This was an inaugural event with expectations of future events.

²⁷ National Institute for Health and Clinical Excellence (NICE)

- Workshop:
 - *Effective Involvement of Patients in Health Technology Decisions: What Does Best Look Like?* (February, 2010)

The initial intent of HENA was to more effectively link evidence to health policy and practice and the above activities reflect this intent despite the lack of a formal network. The first Consensus Conference, for example, had 272 attendees and the resulting consensus statement coming out of the event was distributed to over 30,000 people. Formal evaluations of approaches such as this and the Innovation Forums are being considered by IHE and could inform future roles for the HTA Program as they provide a support function to these activities.

4.1.3 Responsiveness

The HTA Program is expected to be responsive to the needs of requesters.²⁸ Respondents who have worked with the HTA Program as requesters, expert advisors, recipients and users of HTA products noted the program's responsiveness in terms of flexibility for meeting client needs and getting the work done. For example:

“They are always genuinely prepared to listen and take advice as given and give it due consideration.”

Table 5: Key Informant Perceptions of Responsiveness and Adaptability

	Poor (1)	Fair (2)	Good (3)	Excellent (4)	Unable to comment	# of respondents
The responsiveness of the HTA Program to the needs of the product requester	1	1		2	1	5
The adaptability of the program to changes in the HTA environment		2	1	3	4	10

In the written survey, four of six respondents felt the HTA Program's adaptation to the changing HTA environment was “excellent” or “good”, while two rated it as “fair”. Alberta informants' perception of responsiveness to requesters varied with two respondents rating this as “poor” or “fair” and two rating it as “excellent”. In most cases, the ratings were reflective of informants' experiences with a specific project or program. In at least one situation, comments suggest the person was referring to the poor response of the overall Alberta Health Technology Decision Process for developing HTAs (from time request was made to implementation after approval by the Executive Committee), not the HTA Program specifically. One respondent noted that timelines pose a challenge: “Time is an issue...if (it) take two years to turn out a report, it is too long...”

²⁸ An appendix to the 2008 AHTDP Grant Agreement states that, “On behalf of the Government the IHE operates a provincial HTA program to respond to requesters and users from the health system within Alberta.” See *Renewal of Grant Proposal for Building Evidence-Informed Policy Decision-making Capacity in Alberta*, The Institute of Health Economics, Appendix to 2008 AHTDP Grant Agreement, p.1.

A different respondent, who rated the HTA Program's responsiveness as "poor", explained that:

"[It's] not completely the fault of program itself...Barriers [to implementation] are moving targets and time. The Expert Advisory Group is asked to validate costs here but due to time lag and type of tests being changed over time, the cost implications were unrealistic by the time the policy was developed."

Government, health provider groups, other HTA agencies, academic institutions, industry and others all have made (and continue to make) general requests of the HTA Program for information about published reports or participation in surveys with the greatest percentage of requests coming from health providers followed by other HTA agencies.

Requester Points of Entry

The HTA Program is expected to "establish visible and accessible points of entry for requestors and users" of its products.²⁹ The Program's annual reports and website highlight its efforts to be open and accessible to the entire health care community in Alberta as well as other provinces and countries for collaboration on topics of mutual interest. The HTA Program regularly contributes to the IHE website, through sections on its products and services, the Ambassador Program, and ongoing developments.³⁰ This site includes a publication section that hosts all publicly available reports generated by the HTA Program, a search engine and a health statistics database to facilitate access to hard-to-find information.

Some HTAs are initiated in-house to validate findings or are reflective of emerging health issues. For example, the HTA on fetal fibronectin built upon the interim report which was a rapid review submitted to AHW in March 2006. The aim was to check if the findings from a full HTA study, which involved a systematic review and critical appraisal of primary and secondary research, confirmed the findings from the rapid review, which was more limited in scope and depth of analysis, constrained by relatively short timelines. This type of research is critical in understanding the balance of risks between a comprehensive review that takes time and another type of review that is still "good enough".

Prioritization Mechanism

Through the terms of an agreement with AHW, the HTA Program is required to develop or refine and maintain a prioritization mechanism to ensure activities are in keeping with the overall needs and priorities of the health system.³¹ The level or comprehensiveness of an assessment varies according to a set of criteria applied internally. The AHTDP projects are selected based on the recommendations of AACHT and assigned to partner agencies for review.

The Program reports that priority goes to addressing the needs of the Alberta government and health providers with additional resources being acquired should the capacity of the core staff and workload demand it. No requests from within the province for assessments are refused. The HTA Program also addresses this objective through participation in periodic surveys of health system stakeholders and ad hoc feedback from health system leaders.

²⁹ HTA Grant Agreement 2007, Appendix A.

³⁰ See www.ihe.ca.

³¹ HTA Grant 2007, Appendix A.

4.1.4 Innovation and Learning

Innovation and Best Practices

In its 2008-2009 Annual report, the HTA Program at IHE outlines how it consistently works to develop new processes, research methods and activities to advance the field of HTA and adapt to the changing needs of its environment:

Methodological development ensures that best practices are applied in HTA production, dissemination, and knowledge translation activities. It contributes to both the continuous improvement of the HTA Program and the body of knowledge and methods that comprise this field. Frequently, methodological development projects may be triggered by work on substantive topics (reports for clients) or be by-products required because of a gap in the arsenal of tools, instruments, and methods available to a researcher or HTA agency. This core activity can involve presentations at conferences, publication, and participation in national or international working groups. An HTA agency's contribution and participation in methodological development helps maintain and enhance its reputation in the international HTA community and ensure that local users of its services have access to products of high quality.³²

Key informants commended a number of examples of innovation in work of the HTA Program, including: current work on ethics; tools for evaluating case studies and systematic reviews; desktop tools for economic modelling; the Ambassador Program; and publications on comparative effectiveness.

The HTA Program reports that it maintains high standards through the creation and ongoing updating of their internal Policy and Procedures Manual³³ which reflects current best practice and is the standard to which staff is held. The Program's standard is that two independent researchers do the selection and extraction from studies and two researchers do appraisal of the quality. When the provincial HTA Program was at AHFMR, only one researcher did the selection and extraction while two did the quality appraisals. The European HTA community is advocating for best practice of HTA through the International Journal of Technology Assessment in Health Care and HTA Program staff report that they closely follow these discussions to help inform their practice.

The HTA Program is expected to "conduct research to inform and improve the operation of the Provincial HTA process and related processes".³⁴ A number of internal respondents and a few external respondents observed that, in addition to completing the secondary research (HTAs) described in Subsections 4.3.1 and 4.3.2, program staff bring a research-oriented quality improvement approach to their innovative initiatives. One result of this research-oriented approach is the knowledge gained throughout the Ambassador Program starting with the creation of 13 *Evidence in Brief* documents during the inaugural year of program funding. *Evidence in Brief* summaries cover a wide range of interventions including: acupuncture, exercise therapy, opioids, and multi-disciplinary pain programs and are summaries of the evidence about chronic pain management. *Evidence in Brief* summaries were

³² HTA Program and AHTDP Initiatives Annual Report, 2008-2009 (10)

³³ IHE Report. Health Technology Assessment: Internal Policies & Procedures Manual: Established January 2004; Revision #4, June 2009.

³⁴ HTA Grant Agreement 2007, Appendix A.

identified as an innovative and a highly rated research information communication tool by an independent evaluation of the pilot project.

Learning

Learning refers to the way organizations build and organize knowledge, and their ability to learn from experiences in a systematic manner.³⁵ The HTA Program demonstrates a strong culture of organizational learning through its commitment to lifelong learning, program evaluation and continuous improvement, as reflected in the following:

Lifelong Learning

Throughout the past five years several staff have enrolled in formal and informal programs to advance their qualifications. For example, one staff person is currently working and taking classes towards her PhD part time; another has received her second Master's since joining the HTA Program. Two of the researchers are medical doctors who came to the program with this designation but who have greatly expanded their knowledge base since that time.

Staff members also expressed their commitment to continual improvement and ongoing skill development. For example:

“[We] need to keep up to date and ensure processes reflect best practice; we try to improve our professional skills all the time. It is challenging but that's what makes it exciting. I love it; it's like detective work. You can't standardize as each project is different and unique.”

“I see the difference between where we were and where we are now. It was a lot of development all these years. We are learning and learning.”

Commitment to Evaluation

As noted in Subsection 2.3.2, several evaluations of the HTA Program and/or the Ambassador Program have been commissioned since 2002 with the goal of improving processes, products and services. In addition to the present process and impact evaluation, a process evaluation of the Ambassador Program was conducted in 2009. Dr. Paul Taenzer and Dr. Saifee Rashiq, who have been involved with the Ambassador Program since 2004, have recently been awarded a CIHR grant to assess impact of the dissemination of the clinical practice guideline (CPG) on low back pain.

This evaluation activity follows a pattern of commissioning evaluations while the HTA Program resided at AHFMR. The evaluations initiated by the HTA Program over the years reflect a learning culture and are evidence that the program leadership is interested in understanding their strengths and learning where they may make program improvements. It is apparent to the Evaluator that significant efforts have been taken to address the recommendations coming out of earlier evaluations as evidenced by a broader scope of services, enhanced credibility, creation of processes for all aspects of HTA work including standardized methodologies, ongoing staff development opportunities that help the HTA team keep pace with the rapid changes that are occurring in this field, and enhanced dissemination activities.

³⁵ Lafortune L, Farand L, Mondou I, Sicotte C & Battista R. (2008). Assessing the performance of health technology assessment organizations: A framework. *International Journal of Technology Assessment in Health Care*, 24:1, p.76-86.

Respondents from the present evaluation frequently cited the maintenance of a quality improvement mindset as a key strength of the HTA Program. They felt the HTA Program team was constantly evaluating its processes and making strong efforts to keep up to date in terms of methodology. The HTA Program's commitment to organizational learning and accountability through evaluation is intrinsically linked to the program's culture and values maintenance.

4.2. Culture and Values Maintenance

"Culture and values maintenance" is concerned with the core values and norms of the HTA Program and how these are expressed in the organizational climate through leadership, communication and teamwork.

4.2.1. Principles and Values

Core values are the foundation of organizational culture and provide the basis for the accepted and aspired to ways of doing things within the organization.³⁶ In a 2009 report, the Government of Alberta takes the position that "health technology assessment is an important part of the discussion surrounding health system quality and sustainability" and, therefore, it is important that the province "has rigorous and transparent assessment of the evidence, effectiveness and appropriateness of the technology and its impact on its health system".³⁷ The principles of scientific rigour and transparency are at the core of a series of generally accepted values for HTA agencies and incorporated in the Conceptual Framework for this evaluation:

- Accuracy and scientific rigour;
- Transparency;
- Accountability;
- Independence and objectivity;
- Collaboration and coordination; and
- Mutual respect and inclusiveness.

The degree to which the HTA Program at IHE mirrors these principles was explored through both the written survey and discussion.

In the written survey, respondents were asked to rate their level of agreement with statements regarding the HTA Program's adherence to core values and principles using a scale of 1 – 4 with 1 being "Strongly Disagree" and 4 being "Strongly Agree". Responses from 10 people were received with ratings as follows:

- 10/10 respondents strongly agreed that the information presented by the HTA Program is accurate (of *high scientific rigour*);

³⁶ Lafortune L, Farand L, Mondou I, Sicotte C & Battista R. (2008). Assessing the performance of health technology assessment organizations: A framework. *International Journal of Technology Assessment in Health Care*, 24:1, p.76-86.

³⁷ Government of Alberta Report: Alberta Health Technologies Decision Process Forum, September 11, 2009 (2).

- 8/10 respondents strongly agreed or agreed that the program adheres to the principles of *objectivity* and *truthfulness*; the remaining 2/10 indicated they were “unable to comment”;
- 8/10 respondents strongly agreed or agreed that the program adheres to the principle of *transparency*, with 1/10 disagreeing with the statement and 1/10 indicating they were unable to comment;
- 7/10 strongly agreed or agreed with statements that the HTA Program and its staff demonstrate *independence* and that the program fosters an *environment of mutual respect*, with 3/10 indicating they were unable to comment;
- 6/10 strongly agreed or agreed that the program fosters an *inclusive environment*, with 4/10 indicating they were unable to comment; and
- 5/10 strongly agreed or agreed that the program and its staff are accountable to their requestors/funders, with 4/10 indicating they were unable to comment and 1/10 disagreeing with the statement.

During both the interviews with internal and external informants and the focus group with HTA Program and IHE staff, comments were made that reflected adherence to commonly accepted HTA principles and values. Of the 10 comments made, nine positively mentioned scientific rigour and transparency (or openness), with particular reference to the program being unbiased and having high standards. All five external informants who were interviewed remarked on adherence to HTA principles and values.

“I found the HTA to be a highly functioning, objective, fair, transparent, and practical process that provided government with unbiased recommendations, keeping the health of Albertans a priority.”

“IHE has very conscious use of rigour.”

“...did review with an amazing amount of detail and went to pains to make sure it was fair and unbiased.”

4.2.2. Organizational Climate

Teamwork, Leadership and Communication

The comments of both HTA Program staff and respondents who have worked with the program indicate that the organizational climate of IHE supports the maintenance of core values and principles through fostering teamwork, effective leadership and efficient internal communication and work processes.

- *Teamwork:* The number of HTA Program core staff has been relatively consistent over the years with few changes in personnel. One external respondent credited this staff consistency with contributing to maintaining the program’s “solid reputation” for quality. Staff emphasized that consistent communication processes, respect for each other and a willingness to learn, all strengthen their efficiency and effectiveness as a team. For example, one staff member explained, “we are flexible, work well together and help and mentor each other...nice atmosphere and [I] feel valued”.
- *Leadership:* Five HTA staff members and five external respondents recognized the Director of the HTA Program and the IHE Executive Director as experts in the field and as capable leaders

responsible for fostering high standards and a positive climate within the organization. One noted that, “the leadership [the HTA Program Director] has shown has always been terrific”.

- *Communication and work processes:* Communication and collaboration among and between team members were viewed positively by respondents, particularly HTA Program team members themselves. One respondent, in describing the program’s work processes, noted that, “the IHE is a pretty well-oiled machine. The processes are all laid out and it seems that everybody knows what they’re doing, where they’re going and how to go about it.”

One respondent summarized the importance of these attributes of the HTA Program: “I think that’s why our unit does well – great leadership, high efficiency, dedicated team members. Those are the keys to the success and good work.”

4.3. Production and Reach

The production function refers to the quantity and quality of HTA Program outputs, as well as the processes and formalized methods used to produce these outputs.³⁸ The methods and extent of dissemination of these products is explored to assess the program’s ‘reach’.

The HTA Program’s activities and outputs are not limited to the production of reports. A summary of the expected and actual activities for the fiscal years 2006-2007, 2007-2008, 2008-2009 and 2009-2010 as reported in the formal annual reports is included in Appendix I. As 2010-2011 is still in progress, a comprehensive list of activities is not available but every effort was taken to include reports, publications, and major activities that were disclosed through discussions with HTA Program staff. The range of activities undertaken to fulfil the requirements of the agreement have been fairly constant over the years although the scope and depth appears to have broadened as initiatives mature.

4.3.1. Product Line

As outlined in Section 3, the HTA Program within IHE has two grant agreements with AHW for the support of the provincial HTA service and the AHTDP process. Both agreements include provisions for building capacity for the production, dissemination and use of HTA in health policy and practice. In line with these agreements, one of the core objectives of the HTA Program is to maintain and refine the line of products to reflect the needs of receptor organizations.

The HTA Program has a defined core product line that continues to evolve to try to meet the needs of receptor organizations. New products have been added since the HTA Program has moved to IHE, some products have been combined or re-defined and others have been dropped from the line. The current product line consists of a variety of Assessment Reports differentiated by the amount of time required to complete them and the focus of the work (see Table 6). For example, HTA Reports may take six to 12 months to complete while STep reports may take 90 days or longer depending on the complexity of the questions. Completion time for Information Papers varies, but they are often lengthy as they tend to address issues related to methodology. In 2009-2010 another new product was introduced (Comparative Effectiveness Reports) that examines all interventions for a specific disease or health condition or for a process of care with a focus on their use in real world settings.

³⁸ Lafortune L, Farand L, Mondou I, Sicotte C & Battista R. (2008). Assessing the performance of health technology assessment organizations: A framework. *International Journal of Technology Assessment in Health Care*, 24:1, p.80.

Table 6: HTA Program Product Line (as of December 2010)

Type	Name	Time to complete
Assessment Reports	HTA Report	6 – 12 months
	Rapid Assessments	
	▪ Level 1 or QwikNote (formerly a level D QwikNote)	7 – 14 Days
	▪ Level 2: TechNote	1 – 3 months
	▪ Level 3: CompNote	3 – 6 months
	Information Paper	Varies
	STEp Report	90 days
	Comparative Effectiveness Report	Varies

The core product line has been standardized in terms of methodology and formats for reporting so requesters know, for example, that an HTA report would involve extensive information searches and retrievals, comprehensive qualitative or quantitative literature reviews, appraisal of methodology, and may include cost or economic analyses. An HTA report will involve two research associates in its preparations and reviews by external experts as well as internal reviews. This standardized approach aims to allow requesters and HTA Program staff alike to understand the methodology and rigour that will be applied to the questions asked and the expected timelines although these may be negotiated should either party determine a different approach is desirable.

The core product line over time and the products by category that have been produced are outlined in Appendix J.

In addition, the HTA Program responds to information requests from all sources that can take up to three days to complete. Examples of this type of request would include requests for existing IHE reports, quick limited searches of electronic databases or responses to surveys.

Based on its experience with producing different products in November 2009, the HTA program was asked by AHW to develop a menu of products to enhance the timeliness, responsiveness and flexibility the AHDTP process. The products would vary in scope and depth, to address the research question(s) of interest within a particular timeframe. A subsequent phase of the request was to develop a tool (matrix) that could be used by government to help them identify what product is most appropriate for addressing a particular policy question. The first phase was completed in March 2010 and the second phase is near completion; a tool has been developed but has yet to be piloted. At time of report publication, a proposal had also been submitted for a post policy implementation review.

STEp Reports

Program staff report that the scope and depth of the STEp reports has expanded over the term of the agreement. This is attributed to two main events: 1) the creation and maintenance of economic analysis capacity through support of the IHE Decision Analytic Modeling Unit and 2) the refinement of methodology used to produce the social and systems demographic section of the reports (Workshop: July 2010: *Information Resources for Social and Demographic Sections of the AHTDP STE Reports*). In some cases, there are up to seven deliverables on one topic that can impact timelines (i.e., social and

systems demographics; technology of effects and effectiveness; and economic analysis including literature review, cost effectiveness analysis model, budget impact analysis, cost attribution analysis and desktop tools that allow the requester to manipulate the scenarios using different data under different assumptions) that impact the final timeline.

Factors such as the number of topics recommended for review, the need to ensure all partner agencies have suitable reviews assigned, and the number and timing of referrals from AHW influence whether or not available research and analytical capacity at IHE is fully used in any given year. In most years, their capacity was not fully used for STEP projects and staff members were assigned to other initiatives such as enhancements to the AHTDP as mentioned above and focusing on capacity building activities and dissemination of findings from AHTDP projects.

STEP reports are expected to be completed within 90 days but internal tracking shows a very different picture with significant delays apparent at every stage in the process (Table 7). Reasons for delays can be internal to the HTA Program (for example, project scope was much larger than expected as topic has multiple deliverables under one project heading) or external (for example, issues related to access to administrative data and delayed review of draft reports by AHW). The impact of these delays can be significant for the requester, the funder and the HTA Program. Time delays are not unique to STEP reports and are a source of frustration for many of those interviewed as noted in Section 4.3.4.

Table 7: Timelines for STEP Projects

Project Title	Draft Charter	Final Charter	Draft Final Report	Final STE Report
<i>The Use Of The Automated Auditory Brainstem Response And Otoacoustic Emissions Tests For Newborn Hearing Screening</i>	N/A	Oct/06	Nov/06	Feb/07
<i>Newborn Screening For Cystic Fibrosis</i>	N/A	Jan/07	Mar/07	Aug/07
<i>Assistive Reproductive Technologies: A Literature Review and Database Analysis</i>	Charter done with UofC: HTA Program asked to do economic work Jan/08		No final draft document sent	June/08; available Jan/09
<i>Human Papillomavirus (HPV) Testing In Alberta</i>	Mar 19/08	Sept 25/08	Nov 7/08	May 19/09 available June/10
<i>Insulin Pump Therapy</i>	Mar 4/09	July 29/09	Nov 5/09	Jan 10/10
<i>Bariatric treatments for adult obesity</i>	Jan 27/10	May 28/10	Sept 30/10	Dec 17/10
<i>Fecal transplantation for the treatment of clostridium difficile - associated disease and/or ulcerative colitis</i>		Jan 13/10	Sept 14/10	Dec 03/10; resubmitted Mar 18/11
<i>First and second trimester screening</i>	Oct 27/09	Sept 01/10	In progress	

The Assistive Reproductive Technologies report was a collaboration between the University of Calgary (UofC) and the HTA Program at IHE. The UofC had the original charter but did not have the capacity to do the economic portion; the Decision Analytic Modeling Unit was asked to complete this section.

4.3.2. Volume of Production

Since 2006 the HTA Program has produced (or contributed to) 154 publications of all kinds, the most significant of which include:

- Four books;
- Fourteen HTA reports;
- Eight STEp reports;
- Two AHTDP enhancement reports
- Ten information papers;
- Twenty three external publications; and
- Twenty one publications for the Ambassador Program.

All other publications are either manuscripts in peer reviewed journals, methodology papers or resource documents.

As noted, fourteen full HTAs were finalized during the agreement timeframe:

- *An overview of systematic reviews on the prevention, diagnosis, and treatment of fetal alcohol spectrum disorder* (2011)
- *A systematic review of the effectiveness of prevention approaches for fetal alcohol spectrum disorder* (2011)
- *Treatment for Convicted Adult Male Sex Offenders* (2010);
- *Means Restriction for Suicide Prevention; Part I & II* (2010)
- *Sexual Exploitation of Children and Youth Over the Internet* (2010);
- *Exercise Testing for the Prediction of Cardiac Events in Patients with Diabetes* (2009);
- *Effectiveness of Organizational Interventions for the Prevention of Workplace Stress* (2009);
- *Air Ambulance with Advanced Air Support* (2008);
- *Spousal Violence Against Women: Preventing Recurrence* (2008);
- *Islet Transplantation for the Treatment of Type 1 Diabetes - An update* (2008);
- *Using Fetal Fibronectin to Diagnose Pre-term Labour* (2008);
- *Evidence of Benefits from Telemental Health: A Systematic Review* (2007);
- *The Use of Nitric Oxide in Acute Respiratory Distress Syndrome* (2007); and
- *The Use and Benefits of Teleoncology* (2007).

The HTA Program has also provided support for IHE projects in their publication stages, for example, *Parkinson Disease: A Policy Perspective* (2009) and *Effective Dissemination of Findings from Research* (2008). The former is a handbook combining policy recommendations with specific treatment options for Parkinson patients. The latter is a compilation of essays resulting from a workshop organized by the IHE.³⁹

The production of STEp reports is one of the core expectations of the AHTDP Grant agreement. Since July 2006, the HTA Program has completed eight STEp reports at the request of AHW:

- *Fecal Transplantation for the Treatment of Clostridium Difficile - Associated Disease and/or Ulcerative Colitis* (in press, final report submitted 2011);
- *Insulin Pump Therapy* (in press, 2011);
- *Bariatric Treatments for Adult Obesity* (in press, 2011);
- *Human Papillomavirus (HPV) Testing in Alberta* (2009);
- *Assistive Reproductive Technologies: A Literature Review and Database Analysis* (2009);
- *The Use of the Automated Auditory Brainstem Response and Otoacoustic Emissions Tests for Newborn Hearing Screening* (2007);
- *Newborn Screening for Cystic Fibrosis* (technical report) (2007); and
- *Evaluation of enzyme immunoassay and immunoblot testing for the diagnosis of syphilis in Alberta* (2007).

Two AHTDP enhancements reports were also completed:

- *Information Resources for Social and Demographic Sections of AHTDP: Workshop Report* (2010 – circulated to participants only); and
- *Utilizing Diverse HTA Products in the Alberta Health Technologies Decision Process* (Phase 1 March 2010; Phase 2 in press).

The HTA Program is currently conducting their review for another two STEp projects (*First and Second Trimester Screening and Islet transplantation for type 1 diabetes*) and an enhancement report is under negotiation (*Post policy implementation review*).

4.3.3. Product Quality

In a written survey, key informants external to IHE were asked to rate the quality of HTA Program products, based on any products with which they were familiar. Of the ten participants in the survey, seven answered the questions regarding quality. All respondents rated the *overall quality* of HTA Program products as “excellent” (four of seven respondents), or “good” (three of seven respondents). Similarly, all respondents who felt able to comment on specific dimensions rated each of the specific attributes of product quality as “excellent” or “good”: readability, content, format, relevance, accuracy, appropriateness, practicality and timeliness. None of the respondents gave “fair” or “poor” ratings for any of the dimensions of quality listed.

³⁹ See <http://www.ihe.ca/publications/library/>.

The results of this written survey corresponded with findings from interviews conducted in both Stage 1 and 2, in which key informants noted product quality as a particular strength of the HTA Program.

“Excellent. Keep up the good work!”

“My role was limited to external review of one product and I was entirely satisfied with the quality of the process and the product.”

“For dollars for the decision process, the quality of IHE’s reviews is really good – both shorter and longer ones.”

The HTA Program reports using rigorous review processes aimed at maintaining these high levels of report quality. For example, the *Evidence-Informed Primary Care Management of Low Back Pain* guideline itself was reviewed by out-of-province experts, patient focus groups and Alberta health practitioners, and is currently in the process of being updated as it has been two years since its release. This last process is very time and resource intensive but demonstrates the commitment of the HTA Program to continually improve their processes and products by incorporating current research and evidence into their products.

At least two respondents alluded to the potential tension between different dimensions of quality such as timeliness and practicality on the one hand, and scientific rigour on the other.

“I look at quality from two ways...as a regulator, the quality of reports is excellent but clinicians need something quick and easy.”

“IHE has had a role in this area [rapid reviews], but invest most of their energies into higher quality reviews. One can get high quality evidence without going through the full HTA process. There is a massive need for this in Alberta but also more broadly.”

4.3.4. Production Processes

The production of reports and other products by the HTA Program is achieved through a series of core processes. These processes, from topic selection and question formulation through to dissemination and knowledge transfer, are “pivotal to the production and the life of the organization”.⁴⁰ In interviews, focus groups and surveys, key informants discussed these processes at length, highlighting both strengths and challenges encountered in the course of generating products. The majority of comments were from HTA Program and IHE staff unless otherwise noted.

Staff cited four main areas of concern that are reflective primarily of the STEp process:

- Question definition;
- Data access;
- Project timelines; and
- Expert Advisory Group (EAG) structure.

⁴⁰ Lafortune L, Farand L, Mondou I, Sicotte C & Battista R. (2008). Assessing the performance of health technology assessment organizations: A framework. *International Journal of Technology Assessment in Health Care*, 24:1, p.80.

Question Definition

Poor question definition came up repeatedly, framed as “the question is too broad”, “the question(s) is not clear”, “comparators are not clear” or “the questions being asked are operational health care questions rather than policy questions”. Some felt it was the same questions for every assessment regardless of the time allotted to the product. Some felt the problem was more that evidence could not be found for the topic and changes had to be made in what was being explored (for example in the air ambulance and exercise testing assessments).

Two external respondents felt all HTA partners in Alberta could assist with better question definition in the early stages although strategies for how to achieve this were not offered.

Data Access

Access to data in terms of whether data are actually available, the time it takes to get them and the appropriateness of the data received were all factors to completing assessments in a timely fashion. The recent assessment related to C. difficile was cited as a project where data were not available and the results were compromised. Data can come from a variety of sources including the three databases housed at AHW, AHS and the provincial laboratory, each of which has its own processes for requesting and receiving data and timelines. Efforts within AHS to establish a protocol for centralized data requesting and coordinating were viewed as positive.

Project Timelines

All respondents talked about timelines including comments on the struggle to balance time to complete an HTA within an expected period with rigour and attention to appropriate methods, and delays due to the process overall. Many staff felt the time required to do a good job is not always available.

“The questions [are] getting more complex and broad while the timelines are always very tight. Before, for a full HTA we needed at least six months to one year, but now with these STEps, only 90 days. It’s very hard to produce good quality work within this short timeline.”

“...sometimes we compromise on a less comprehensive assessment.”

“It’s the constant balance of time and being able to answer the questions they’re interested in...bariatric services is a good example. The E analysis was very much simplified to meet their time constraints....”

The ability to negotiate timelines through adoption of a multi-phased approach was deemed helpful in instances where the questions to be answered were complex and layered.

“...sometimes you get questions that you need three or five years to answer but we find a way to negotiate with the requesters, or do a Phase 1 then Phase 2 or take very broad questions and narrow down into a small area so we can focus on that area first.”

In the STEp report for the islet cell transplantation project, the HTA Program did mostly the “T” section. There was no “E” as there was no literature in this area. The program is currently doing the third update

on the “T” section that includes an “S” section, and has now been asked to do an “E” component and are working with AHS to get the data to help complete the latter section. This illustrates why timelines can be long.

External respondents, in particular, noted that having multiple stakeholders influences the time it takes to finalize a project because of the iterative nature of the cycle and communication but that the trade-off in terms of engagement and unbiased, evidence-based reports were worth it.

Compromising methods to meet timelines was not viewed positively although the aforementioned multi-phased approach may provide the opportunity to explore questions in a different, and potentially, more appropriate fashion.

Expert Advisory Group Structure

The Expert Advisory Group (EAG) structure itself was not always seen positively by staff with concerns expressed in these areas:

- Roles and expectations not always understood;
- Respect for the process of doing an HTA;
- Poor responsiveness or engagement on a topic; and
- Potential inability to maintain objectivity.

It is important to note that responsibility for the EAG structure and process does not reside with the HTA Program. However, the EAGs are an important component of Alberta’s overall AHTDP to which the HTA Program staff contributes.

At times, staff did not know who was on the EAG for a topic, where they worked (including which department or Ministry) or where their expertise lies. Contact information was not provided impacting the ability to reach out to clarify something or have discussions that would assist with the work to be done. The perception was some EAG members did not seem to understand the process of doing an HTA and the steps involved in producing the various products and wanted to jump to operational issues before a report was provided. Some respondents noted that in a few cases, members of the EAG have expected the process to produce primary research; a misalignment of expectations that can result in disappointment with the final product.

Findings suggest that individuals who have participated in HTA processes before can be an important resource for mutual education and expectation alignment between the EAG and the researchers. Internal and external informants gave examples of when experts had been on previous committees and then shared their new-found appreciation for the HTA process with their colleagues convened for the next topic.

“This became evident in the project on syphilis testing which is a project that did work. The clinicians were on board. Then with HPV, one of the clinicians from syphilis was on the committee and that clinician was answering for us and got everyone else on board, answering their questions about process, explaining what we had to do, what questions we answer. If you have an engaged EAG who understand the process and what it answers, it makes everything so much more efficient and relevant at the end of the day.”

“They tried to crystallize relevant information and gave us appropriate scientific summaries versus flooding us with pages and pages of research stuff that we would have to wade through and we probably wouldn’t do terribly well. I’m not a great researcher at all; I’m just an average Joe clinician, so [it was] very useful having somebody with a scientific background help us in crystallizing what was important information in context of our own clinical practice...very helpful.”

Staff gave further examples of times when the EAG was very engaged and involved in the process and where collaboration worked well and expressed a desire for this to be more the norm.

“...some people were involved in the project, some are less involved. When the committee is cooperative [it is] very helpful. But not everyone is helpful.”

Concern was expressed for those times when members of the EAG had obvious vested interest for specific technologies and their partiality influenced the input they provided. On the other hand, some key informants suggested that one can not argue with evidence, so individual clinicians, for example, who might practice differently would acknowledge the evidence arising out of the HTA report.

Implementing an ongoing orientation session for EAG members was seen as a potentially useful strategy. New members who are just beginning to use HTAs in decision making could learn the common HTA terms, the principles and values which HTA programs embody and information about the various methodologies and what is involved. Members who have participated before may be interested in more in-depth topics particularly in the area of economic analysis.

4.3.5. Dissemination and Knowledge Transfer Practices

Dissemination and knowledge transfer (KT) practices are the core vehicles for achieving the “reach” of the HTA Program and its products. Maintaining standard dissemination practices and developing unique dissemination strategies for incorporating evidence into practice and health policy is a grant requirement and clearly observable within the HTA Program. As HTA reports are intended to inform decision making, the more effective dissemination can be, the greater the likelihood of program impact.

Dissemination

Hardcopy and Online Distribution

Initially the HTA Program produced hard copies of all reports in the public domain and mailed them to a standard distribution list as well as others identified by the key stakeholders involved in the project. The reports were also posted on the web. In recent years, fewer hard copies have been published and those that are go to individuals and organizations that are directly interested in the topic. Announcements on new reports that are available in PDF format on the HTA Program website are sent, via email, to a large network of health care providers, clinicians, policy makers, organizations and industry contacts. Others are alerted to new reports via notices on the IHE home page. Of note is that all HTA reports are available upon request but QwikNotes are not online.

While the number of “hits” on a particular report does not speak directly to effective dissemination strategies, they can be seen as a surrogate measure for the interest in the subject or relevancy to particular constituents. “Hits” are the number of times a reader clicks on the report and are not reflective of the number of downloads or if a person read the report online. Table 8 below displays the number of

hits for publicly available HTA reports for the last two years when statistics were kept. While the timeliness or relevancy of some reports may be limited it is notable to see those reports that were viewed years after initial publication. By the same token, recent postings were viewed over 100 times in just over a month from date of posting reflecting the interest in specific topics. The *Treatment for Convicted Adult Male Sex Offenders* report, for example, has generated interest in a number of ways. The research team is currently working on a manuscript. They are going on a panel to discuss how HTAs can be related to public safety issues. Swedish colleagues heard of this work and proposed working on a joint panel for HTAi in 2011 which was recently accepted by the scientific organizing committee. IHE will showcase their methodological approach and how the findings of the report were used in decision making.

Table 8: Web Hits for the Calendar Years 2009 and 2010

Year Posted	Title	Hits 2009	Hits 2010
2006	<i>Strategies To Reduce Emergency Department Overcrowding</i>	114	59
2006	<i>Gastric Electrical Stimulation (Enterra Therapy System) For The Treatment Of Gastroparesis</i>	45	22
2007	<i>Health Technology Assessment on the Net (9th Edition) (superseded by later editions)*</i>	29	4
2007	<i>The Use of Nitric Oxide in Acute Respiratory Distress Syndrome</i>	34	25
2007	<i>The Use Of The Automated Auditory Brainstem Response And Otoacoustic Emissions Tests For Newborn Hearing Screening</i>	54	60
2007	<i>Newborn Screening For Cystic Fibrosis</i>	31	38
2008	<i>Health Technology Assessment on the Net (10th Edition)*</i>	625	402
2008	<i>Air Ambulance with Advanced Life Support</i>	86	69
2008	<i>Spousal Violence Against Women</i>	115	58
2008	<i>The Role Of Rapid Fetal Fibronectin In The Management Of Spontaneous Preterm Labour</i>	105	78
2008	<i>Islet Transplantation For The Treatment Of Type 1 Diabetes – An Update</i>	158	68
2009	<i>Effectiveness Of Organizational Interventions For The Prevention Of Occupational Stress (online since Mar 12, 2009)</i>	363	412
2009	<i>Assistive Reproductive Technologies: A Literature Review And Database Analysis (online since Apr 6, 2009)</i>	312	130
2009	<i>Exercise Testing For The Prediction Of Cardiac Events In Patients With Diabetes (online since Jul 28, 2009)</i>	157	96
2009	<i>Health Technology Assessment on the Net (11th Edition) (online since Sept 23, 2009)*</i>	248	554
2010	<i>Means Restriction for Suicide Prevention (online since May 3, 2010)</i>	-	312
2010	<i>Sexual Exploitation Of Children And Youth Over The Internet (online since May 3, 2010)</i>	-	224
2010	<i>Treatment for Convicted Adult Male Sex Offenders (online since Oct 19, 2010)</i>	-	110
2010	<i>Human Papillomavirus (HPV) Testing In Alberta (online since Nov 4, 2010)</i>	-	102
TOTAL		2,467	2,823

* These reports are not HTAs but do provide a “value-added” service as they encourage people to use sites where they will find credible evidence.

Presentations

One of the methods of disseminating the findings of HTA Program reports is through a variety of presentations. Staff present at numerous international, national and local conferences and workshops, although during times of fiscal restraint, this has occurred with less frequency and more emphasis is placed on dissemination strategies that can be done remotely or via the Internet. The number of oral and poster presentations delivered since 2006 are outlined in Table 9.

Table 9: Number of Presentations by Type and Venue (2006-2010)

	Conferences	Workshops	Meetings	TOTAL
International	24	2	0	26
National	10	4	0	14
Local	11	8	13	32
TOTAL	45	14	13	72

In the written survey of HTA Program researchers, respondents report delivering oral and poster presentations at various forums, including but not limited to:

- CADTH symposiums;
- HTAi annual meetings;
- Cochrane symposiums;
- Canadian Pain Society conferences; and
- Health Research Transfer Network of Alberta (RTNA) conferences.

Audiences reached by these presentations include:

- Internal IHE audiences;
- Requesters;
- Policy and decision makers;
- HTA “doers and users”;
- Systematic review producers; and
- Practitioners.

Academic Publications

Another standard dissemination practice, particularly in projects involving academics, is publication of the process and/or findings of an assessment in peer-reviewed journals or other scholarly venues. Publications contribute to the knowledge of HTA as a field and to new methodologies, to awareness of the HTA Program and expertise of the staff, and to career advancement opportunities of the various contributing authors.

A list of all publications by HTA Program staff to date by category of product and author(s) is located in Appendix K. Not all publications are in traditional peer-reviewed journals; the list includes non-traditional sources as well, some of which are more in tune with the product line for IHE as an organization (for example, books). HTA Program and IHE staff reported the desire to publish more; particularly mentioned were results of systematic reviews conducted as part of the overall STEp reports.

As noted earlier, the AHTDP grant agreement defines some parameters around publication of findings related to STEp Reports. It is also possible that third parties may have additional restrictions given the source and sensitivity of data they provide (for example, Statistics Canada and AHW administrative linked datasets).

Knowledge Transfer

The HTA Program and its staff has been an active partner in contributing to the evolution of knowledge transfer (KT) in the province. Initially the director was responsible for the RTNA before the merger of the HTA Program with the IHE. The director continued to be an active member of the RTNA Steering Committee and co-chair of the Dissemination Working Group until recently when AHFMR was dissolved and a new governance structure was created. Since that time, the majority of formal KT activities have been related to the Ambassador Program.

Due to the increasing sophistication of the Internet, the savvy of its users and the maturation of the KT field over the past decade, the HTA Program has been able to explore relatively new and untested KT strategies in this sector. Unique dissemination strategies have been a hallmark of the Ambassador Program generally and specifically in relation to the dissemination plan for the CPG for low back pain (*Evidence-Informed Primary Care Management of Low Back Pain*) that was developed with partners at Alberta Innovates – Health Solutions (AIHS). Strategies used include:

- Patient handouts:
 - “What You Should Know About Chronic Low Back Pain”
 - “What You Should Know about Acute Low Back Pain”
- Public media:
 - YouTube video (acute pain): “Get Back At It”
 - Comic book (further work required)

Throughout the development of the two patient handouts, the Ambassador Program worked with the Institute of Work & Health in Ontario and built upon work they had done in this area. The handouts were then vetted through a patient focus group to ensure they were readable, relevant and helpful.

While formal evaluations of the impact of these strategies are still forthcoming, anecdotal evidence is promising. An external key informant said physicians report the handouts are helpful in showing patients the evidence for how to care for their pain. The informant said these one and two pagers are scientifically robust, practical and usable having come out of a long, iterative process between the researchers within the HTA Program and clinicians on various working groups.

Use of the new and emerging field of social media resulted in the launch of a YouTube video on acute low back pain in mid-October 2010.⁴¹ The video is a three minute production done in collaboration with staff of the Hamilton, Ontario YWCA. Staff are shown using exercise equipment in the gym and reinforce the recommendations coming out of the low back pain CPG related to treatment. Key informants report hearing of clinicians in other Canadian provinces who have downloaded the video and are already using it in their practice with clients. Users who view online are prompted to complete a survey after viewing as one means of evaluating effectiveness.⁴² Analysis of this data is ongoing. Another YouTube video on chronic low back pain is in production.

Another unique KT strategy for the Ambassador Program was the development of a comic book for adults in the general public. Key partners at AIHS worked closely with an Ontario-based illustrator and script developer to create a product that was intended to deliver the message about low back pain using language and visuals common to the target audience. The product was well received by professional audiences but responses from multiple focus groups were not positive. The overall creation process was a learning curve for all involved and at the time of writing, the future of this dissemination strategy as an approach is unknown but the lessons learned were invaluable.

The patient handouts, the YouTube video and the comic book were all vetted through the IHE Lay Committee and based on their feedback further refinements are underway.

4.4. Goal Attainment and Impact

The HTA Program's production and reach contribute to its "goal attainment", which Lafortune et al. (2008) define as "the ability of the HTA organization to produce and disseminate information (i.e., outputs) that in turn affects the way decisions are made (i.e., expected impacts)."⁴³ As outlined in the Conceptual Framework (Figure 1), the impact of the HTA Program can be assessed according to a number of different dimensions:

- Awareness of and satisfaction with products;
- Use and impact in decision and policy making;
- Influence on practice; and
- Research impact.

In addition to these dimensions of impact, this section covers:

- Factors influencing use and impact of HTA Program products;
- Ways in which the HTA Program has leveraged funds for greater than expected impact; and
- Challenges in assessing impact.

⁴¹ The video can be viewed at: <http://www.youtube.com/watch?v=lkPv72O9ums&sns=em>.

⁴² The survey is found at: www.ahfmr.ab.ca/backpainsurvey.php.

⁴³ Lafortune L, Farand L, Mondou I, Sicotte C & Battista R. (2008). Assessing the performance of health technology assessment organizations: A framework. *International Journal of Technology Assessment in Health Care*, 24:1, p. 78.

The dimensions of impact listed above blend together the “categories of payback” used in the Buxton/Hanney payback model for assessing impact of health services,⁴⁴ and the key aspects of goal attainment identified by Lafortune et al. (2008)⁴⁵ and Wanke et al. (2006)⁴⁶ in relation to HTA organizations’ performance. Beyond these various dimensions of impact, ultimate outcomes are also conceptualized for HTA organizations. These refer to the impact of the HTA Program’s mandate on the health system or population level health status. Although these long-term outcomes are not a focus of this evaluation as they cannot be attributed solely to the HTA Program, they nevertheless provide a rationale for having strong HTA capacity in Alberta.

This evaluation used methodology adapted from Hanney et al. (2007)’s evaluation of the United Kingdom National Health Service (NHS) HTA Programme, as outlined in Subsection 2.3. One of the key components of this methodology is a survey of the lead researchers of past HTA Program projects covering the key categories of research ‘payback’. The data from the researcher surveys were augmented by findings from interviews with external key informants, focus groups and document review. In line with Hanney et al. (2007)’s methodology, three case studies of HTA Program projects follow in Section 5 to support a more in-depth analysis of impact.

4.4.1. Awareness of and Satisfaction with HTA Program Products

According to Wanke et al. (2006), “at the first level of impact, stakeholders are aware of the existence of the HTA agency or products...[a] sublevel of the first category is satisfaction with the agency or products.”⁴⁷ The evaluation sought the perceptions of external key informants regarding levels of awareness of the HTA Program and its products. Results regarding the awareness of the HTA Program as a whole are reported in Subsection 4.1.2 as they pertain to the external support for the program. This section focuses on awareness of and satisfaction with the *products* of the HTA Program, as a precursor to assessing the impact of these products.

Awareness

Key informants who are external to, but have interacted with, the HTA Program were asked in a written survey to identify with which HTA Program products they were familiar. Nine of 10 respondents indicated that they were personally aware of at least one type of product of the HTA Program; and four of five respondents from Alberta thought that potential users of HTA products within the province had “good” awareness of the HTA Program.

The most widely recognized category of HTA Program product amongst respondents is HTAs. Seven of 10 respondents were aware of at least one HTA report produced by the HTA Program. Five of 10 indicated awareness of at least one STEp report. Awareness of the remaining types of

⁴⁴ Hanney S, Buxton M, Green C, Coulson D and Raftery J. An assessment of the impact of the NHS Health Technology Assessment Programme. *Health Technology Assessment*, p. 28.

⁴⁵ Lafortune L, Farand L, Mondou I, Sicotte C & Battista R. (2008). Assessing the performance of health technology assessment organizations: A framework. *International Journal of Technology Assessment in Health Care*, 24:1, p. 79.

⁴⁶ Wanke M, Juzwishin D, Thornley R and Chan L. (2006), An exploratory review of evaluations of health technology assessment agencies. *HTA Initiative #16*. Edmonton: Alberta Heritage Foundation for Medical Research – Health Technology Assessment Unit, p.17-18.

⁴⁷ Wanke M, Juzwishin D, Thornley R and Chan L. (2006), An exploratory review of evaluations of health technology assessment agencies. *HTA Initiative #16*. Edmonton: Alberta Heritage Foundation for Medical Research – Health Technology Assessment Unit. p. 17.

products were reported by less than half of the respondents, as follows: books (4/10), INAHTA documents (4/10), information papers (3/10), Ambassador products (2/10), and QwikNotes (2/10). Six respondents were aware of at least three different categories of HTA Program products, and three were aware of at least five categories. As noted previously, the number of participants in the survey was small, and many of the informants had only interacted with the HTA Program regarding a specific product. Because HTA Program products cover a wide spread of topics, relatively few key informants had cause to use more than a few different products in the course of their work. As one person explained,

“My lack of awareness should not be taken as a fault of the program. I have no need for these products in my work.”

Satisfaction

Three of five respondents to the written survey who felt able to comment rated their overall satisfaction level of the HTA Programs products as “good” or “excellent”. In interviews, requesters, recipients and reviewers also expressed their own satisfaction with products and services received.

“(It’s) hard to improve on a good job!”

“Fine job...very worthwhile endeavour”

“I was entirely satisfied with the quality of the process and the product.”

4.4.2. Use and impact of HTA products in decision and policy making

Using methodology adapted from Hanney et al.’s (2007) evaluation of the United Kingdom National Health Service HTA Programme, this evaluation draws on the perceptions of lead researchers regarding the use and impact of their completed HTA Program projects. Additional input was sought from other key informants within IHE, requesters of HTA Program products, collaborators and other individuals who have interacted with the program in various capacities.

Use of Research Findings in Policy and Decision-Making

The primary researchers for 11 HTA and STEp reports produced since 2006 were asked whether these products had been used in policy making and whether such use was expected in the future. Researchers also identified the level at which policies or decisions were or were expected to be influenced. Respondents indicated that six of the HTA and STEp reports had already been used in health system policy making, five of which had prompted policy decisions by AHW, AHS and/or the former regional health authorities. Six reports are expected to be used in future policy and decision-making. The number of reports that either already have been, or are expected to be, used in decision and policy making are outlined in Table 10. Researchers’ descriptions of the use and impact of each report are summarized in Table 11.

Table 10: Researcher Perception of Use / Potential Use of Research Findings

Type	No. of projects that have or are expected to be used in policy making	Level at which policies/decisions were/are expected to be influenced		
		Local/Regional	Provincial	National or International
HTA	3	3	3	0
STEp	5	3	5	1
TOTAL	8	6	8	0

Table 11: Researcher-reported Use of HTA Program Reports in Decision and/or Policy making

Project	Report Type	Use in decision and/or policy-making
<i>Treatment for Convicted Adult Male Sex Offenders, (July 2010)</i>	HTA	<ul style="list-style-type: none"> Findings used to make evidence-based decisions on how to improve local Sex Offenders Treatment (SOT) practice. A task group of local clinical experts and policy makers was charged with building upon the HTA findings and, via their expertise, developing recommendations regarding the province-wide delivery of services for sex offenders that are soon to be implemented in Alberta. HTA served to inform guidance produced by the Provincial Forensic Mental Health Management Committee, identifying key elements of effective SOT practice delivered within available programs.
<i>Sexual exploitation of children and youth over the internet, (May 2010)</i>	HTA	<ul style="list-style-type: none"> To the knowledge of the researcher, this report was not used in policy/decision-making.
<i>Exercise testing for the prediction of cardiac events in patients with diabetes, (May 2009)</i>	HTA	<ul style="list-style-type: none"> To the knowledge of the researcher, this report was not used in policy/decision-making.
<i>Effectiveness of organizational interventions for the prevention of occupational stress, (January 2009)</i>	HTA	<ul style="list-style-type: none"> Information not available.
<i>Islet transplantation for the treatment of type 1 diabetes – an update, (December 2008)</i>	HTA	<ul style="list-style-type: none"> Due to lack of long-term efficacy and serious safety concerns associated with immunosuppressive medications, Islet transplantation was not considered standard care. In line with this conclusion, AHW did not approve coverage for physician fees associated with islet transplantation for the treatment of brittle type 1 diabetes. According to the feedback from AHW on the INAHTA impact framework form, the HTA report was considered by decision makers.

Project	Report Type	Use in decision and/or policy-making
<i>The role of rapid fetal fibronectin in the management of spontaneous preterm labour</i> , (January 2008)	HTA	<ul style="list-style-type: none"> Interim report (submitted to AHW in December 2005) was used in the formulation of recommendations (within AHW) for Ministry consideration and for subsequent decision making (September 2006) to clarify funding for this diagnostic test in Alberta. The full HTA report (published in January 2008) reached the same conclusions as the interim report, confirming its findings.
<i>Insulin Pump Therapy (IPT)</i> , (January 2010)	STEp	<ul style="list-style-type: none"> Expected decision on provincial coverage of insulin pumps used to deliver insulin in patients with type 1 diabetes. Project found that the differences between multiple daily insulin injection and insulin pump therapy in terms of safety and efficacy outcomes were statistically but not clinically significant. This finding, along with the findings from economic evaluation section provided insightful and useful information for decision makers. Synthesis report was produced by AHW following completion of STEp report.
<i>Human papillomavirus (HPV) testing in Alberta</i> , (May 2009)	STEp	<ul style="list-style-type: none"> Review directly informed Alberta decision to implement the technologies under review. Other researchers in other provinces have contacted principle investigator of economic analysis component to determine the generalizability of findings and adaptability of economic analysis to their setting.
<i>Assistive reproductive technologies: a literature review and database analysis</i> , (January 2009)	STEp	<ul style="list-style-type: none"> Results informed a provincial review of ARTs and provided a proposal to conduct further analysis. The Assisted Human Reproduction Agency of Canada (AHRC) requested a copy of the report for their meeting on the issue of reducing Multiple Births and of Single Embryo Transfer in IVF as a strategy. The findings were of moderate impact on the policy decision due to the need for further analysis.
<i>The use of the automated auditory brainstem response and otoacoustic emissions tests for newborn hearing screening</i> , (March 2007)	STEp	<ul style="list-style-type: none"> The report was used in the formulation of policy recommendations for the Health Ministry's consideration Requester provided feedback that report was used.
<i>Newborn screening for cystic fibrosis</i> (technical report), (March 2007)	STEp technical	<ul style="list-style-type: none"> In April 2007, Alberta became the first province in Canada to fund newborn screening for cystic fibrosis. Details on how HTA findings were used in the decision making process not available.

Five reports informed decisions regarding funding and implementation of certain technologies: three decisions approved new screening technologies; one decision was made not to fund a new treatment; and one decision is currently pending.

Informants noted that, in instances when reports are used to inform decisions *not* to change policy or *not* to implement or fund a particular procedure, it may be harder to trace the direct impact of the HTA evidence on decision-making, but it plays an important role nonetheless. One respondent highlighted the example of the 2008 HTA Report *Islet transplantation for the treatment of Type 1 diabetes – an update*. This report was an update to a 2003 HTA Report published under AHFMR. Despite significant optimism around the “Edmonton protocol” for islet transplantation in 2003 and reported pressure from clinicians to “make the conclusion that it’s standard, not experimental anymore”, the 2003 report found

insufficient evidence for the procedure, concluded that it could not be classified as standard care at that juncture, and recommended waiting for additional evidence from larger international trials. By the time the update was published by the HTA Program five years later, “lots of evidence [had] come out and actually showed that it’s not as good as thought at the time,” validating the first report’s conclusions. The INAHTA Impact Framework for the *Islet transplantation* report verifies that its findings were considered by decision makers.

Key informants also noted that “improving knowledge” of policy makers on key health issues is “a big piece in terms of impact”. This knowledge building is observed both at the level of policy makers and of practitioners. Respondents observed that the role of HTA and STEp reports is not exclusively about providing definitive policy recommendations, but about providing decision makers with information about the nuances of the question, the available evidence, and key factors for consideration.

“The actual decision making, of course, involved many other factors. But I always think, even if they don’t make any decision on certain technology or interventions, when they talk about it or try to make decisions, based on this rich understanding that they didn’t have before, I think it’s a huge difference.”

4.4.3. Influence of HTA Program Products on Practice

HTA activities can have a range of impacts on the way health services are organized and delivered, and on how resources are allocated.⁴⁸ In response to the written survey, researchers indicated that three HTA Reports and one STEp report either have already or are expected to influence practice of health practitioners, managers, administrators, health service users or the general public. Practice changes were reported most frequently to have been implemented by health practitioners at provincial or local institution levels. Table 12 describes changes in practice related to each report as perceived by researchers, and Table 13 summarizes the levels at which researchers perceive or expect these changes.

Table 12: Researcher-reported influence of HTA Program reports on health care practice

Project	Report Type	Influence on practice
<i>Treatment for Convicted Adult Male Sex Offenders</i> , (July 2010)	HTA	<ul style="list-style-type: none"> ▪ The HTA study offers a guide to the current state of sex offender therapy (SOT) practice, which may help policy makers, practitioners and managers to be aware of and deliver evidence-based interventions and services. ▪ The report served as a background source document to inform guidance produced by the Provincial Forensic Mental Health Management Committee, identifying key elements of effective SOT practice delivered within available programs.
<i>Sexual exploitation of children and youth over the internet</i> , (May 2010)	HTA	<ul style="list-style-type: none"> ▪ The research findings are a potentially important source of information regarding the prevalence of online sexual exploitation of children and youth. ▪ No immediate results of this project are reflected in practice changes.

⁴⁸ Lafortune L, Farand L, Mondou I, Sicotte C & Battista R. (2008). Assessing the performance of health technology assessment organizations: A framework. *International Journal of Technology Assessment in Health Care*, 24:1, p. 78.

Project	Report Type	Influence on practice
<i>Exercise testing for the prediction of cardiac events in patients with diabetes</i> , (May 2009)	HTA	<ul style="list-style-type: none"> Based on the conclusions of this report, the current lack of availability of exercise testing in rural areas is expected to change. Physicians with capacity in using exercise testing equipment are expected to be available to patients in rural regions with chronic diseases prior to enrollment in structured community-based exercise programs.
<i>Effectiveness of organizational interventions for the prevention of occupational stress</i> , (January 2009)	HTA	<ul style="list-style-type: none"> Information not available.
<i>Islet transplantation for the treatment of type 1 diabetes – an update</i> , (December 2008)	HTA	<ul style="list-style-type: none"> Information not available.
<i>The role of rapid fetal fibronectin in the management of spontaneous preterm labour</i> , (January 2008)	HTA	<ul style="list-style-type: none"> The Deputy Health Minister's letter of September 19, 2006 directed all health regions to make fetal fibronectin testing available. The decision to fund this test had practice implications for health service providers and users.
<i>Insulin Pump Therapy (IPT)</i> , (January 2010; in-press)	STEp	<ul style="list-style-type: none"> To the knowledge of the researcher, this report has not led to changes in practice to date.
<i>Human papillomavirus (HPV) testing in Alberta</i> , (May 2009)	STEp	<ul style="list-style-type: none"> AHS adopted new testing technology.
<i>Assistive reproductive technologies: a literature review and database analysis</i> , (January 2009)	STEp	<ul style="list-style-type: none"> To the knowledge of the researcher, this report has not led to changes in practice to date.
<i>The use of the automated auditory brainstem response and otoacoustic emissions tests for newborn hearing screening</i> , (March 2007)	STEp	<ul style="list-style-type: none"> Information not available.
<i>Newborn screening for cystic fibrosis</i> (technical report), (March 2007)	Technical report	<ul style="list-style-type: none"> Information not available.

Table 13: Changes or expected influence on health care practice, by level of implementation

Type	# of projects influencing practice	Level of implementation				
		Health practitioner	Administrator	Manager	Health services users	General public
HTA	3	3	2	2	2	0
STEp	1	1	0	1	1	2
TOTAL	4	4	2	3	3	2

Two reports (*HPV Testing in Alberta* and *The role of rapid fetal fibronectin in the management of spontaneous preterm labour*) influenced or informed province-wide adoption of new testing procedures, with potential widespread impact on the practice health providers, administrators and service users. The *Treatment for Convicted Adult Male Sex Offenders* report has already had demonstrable impact on practice, less than a year after its release. This project and its impacts are discussed further in a case study in Section 6.

For four of 11 reports, researchers indicated either that they did not know if changes in practice had taken place in response to their research findings. The limitations of using researcher perception to assess impact of HTA projects are addressed in Subsection 4.4.6.

4.4.4. Use and Impact in the Research System

In addition to their application in policy-making and practice, HTA activities can have impacts in the research system, the field of HTA itself and in the specific fields of the technologies/interventions assessed.⁴⁹ This section explores the use and impact of HTA Program reports in the research system through examination of:

- Citations and library holdings of reports;
- Capacity building activities; and
- Research and HTA methods development.

Citation Tracking

The frequency with which a publication is cited by others can be considered one measure of program impact. Citation tracking was done for 10 HTA and STEp reports available in the public domain as part of this evaluation. OCLC Online Computer Library Centre, was used to search for library listings of the various products. Details of the search methods and results are included in Appendix L. Between the ten reports, a total of 58 citations were identified. Twenty-six (26) different libraries own at least one of the reports listed.

The report *Islet Transplantation for the Treatment of Type 1 Diabetes - An update*, for example, is not only cited on many search engines and blogs but has been acquired for the collections of eleven libraries in Canada alone. The decision to acquire a publication is an indication that the institution has rigorously reviewed the product and deemed it a resource worthy of inclusion in its catalogue. *Sexual Exploitation of Children and Youth Over the Internet: a Rapid Review of the Scientific Literature* has been acquired by 11 academic libraries including the New York Academy of Medicine.

⁴⁹ Lafortune L, Farand L, Mondou I, Sicotte C & Battista R. (2008). Assessing the performance of health technology assessment organizations: A framework. *International Journal of Technology Assessment in Health Care*, 24:1, p. 78.

Table 14: Citations and Library Holdings for Public HTA Program Reports

Report title	# of libraries holding report	# of citations	Citations Sources
<i>Sexual Exploitation of Children and Youth Over the Internet: A Rapid Review of the Scientific Literature</i> , (March 2010)	11	3	<ul style="list-style-type: none"> York University Library Catalogue NHS Evidence Finnish Office for HTA
<i>Treatment for Convicted Adult Male Sex Offenders</i> , (July 2010)	4	3	<ul style="list-style-type: none"> Report watch blog U of A Library SBU Report
<i>Exercise testing for the prediction of cardiac events in patients with diabetes</i> , (May 2009)	0	7	<ul style="list-style-type: none"> NHS Evidence Canadian Electronic Library Canada Online Catalogue Centre for Reviews and Dissemination Alberta Centre for Active Living blog Facebook Finnish Office for Health Technology Assessment
<i>Human papillomavirus (HPV) Testing in Alberta</i> , (May 2009)	0	1	<ul style="list-style-type: none"> McGill Dept. of Oncology Annual Report
<i>Assistive Reproductive Technologies: a Literature Review and Database Analysis</i> , (January 2009)	11	4	<ul style="list-style-type: none"> Alberta Perinatal Health Program NHS Evidence CADTH Finnish Office for HTA
<i>Effectiveness of organizational interventions for the prevention of occupational stress</i> , (January 2009)	11	15	<ul style="list-style-type: none"> World Health Organization (2) Pan American Health Organization Tweet CRD Novanet- Dalhousie Catalogue CADTH Alberta Addiction and Mental Health Research Partnership Program Canadian School Health Knowledge Network Dalhousie Library Catalogue: Occupational Health and Safety Agency for Healthcare in BC (powerpoint) School Health Insider Ministry of Health and Long Term Care Ontario Finnish Office for HTA Information for Practice Blog McMaster Library Catalogue York University Library Catalogue
<i>Islet transplantation for the treatment of type 1 diabetes – an update</i> , (December 2008)	11	5	<ul style="list-style-type: none"> NHS Evidence TRIP database AETNA Search medica Personal blog

Report title	# of libraries holding report	# of citations	Citations Sources
<i>The role of rapid fetal fibronectin in the management of spontaneous preterm labour, (January 2008)</i>	1	10	<ul style="list-style-type: none"> ▪ CADTH ▪ AETNA ▪ Royal College of Obstetricians and Gynecologists ▪ NHS Evidence ▪ CIGNA ▪ York University Library Catalogue ▪ Personal Blog ▪ TRIP ▪ Cuban Health Search Engine ▪ Finnish Office for HTA
<i>Newborn screening for cystic fibrosis, (March 2007)</i>	15	3	<ul style="list-style-type: none"> ▪ Finnish Office for HTA ▪ CARNA Library ▪ OCLC Classify
<i>The use of the automated auditory brainstem response and otoacoustic emissions tests for newborn hearing screening, (March 2007)</i>	6	4	<ul style="list-style-type: none"> ▪ NHS ▪ U of A- Faculty CV ▪ Department of Health and Aging Australia- Universal Neonatal Screening Report ▪ Finnish Office for Health Technology Assessment

Capacity Building

The HTA Program has enhanced capacity for doing and using HTAs over the past five years through consultation, collaboration and coordination. One of the IHE-AHW grant agreement notes that, “capacity building may involve a range of activities and projects such as recruitment of additional expertise to Alberta, knowledge transfer activities, and methodological development that improves the conduct of provincial reviews.”⁵⁰ Participation in established networks and exchanges strengthen the reputation of local HTA agencies and ensure that they share and can apply information about new developments in the production, dissemination and use of evidence.

The HTA Program has collaborated with many individuals, groups and other recognized HTA organizations since its inception. Relationships and partnerships created in the very early years have been sustained and nurtured including that with CADTH which, in its initial format (CCOHTA), was the funder for Phase 1 of the Ambassador Program. Capacity building for this program has taken many shapes, including:

- Professional development placements within the HTA Program which were a hallmark in the first two years of this agreement;
- Network affiliations: (for example: Collaborative Health Innovation Network (CHIN), Health Evidence Network (WHO) [HEN-WHO], Pacific Northwest Economic Region [PNWER], INAHTA, HTAi, Canadian Association for Health Services and Policy Research [CAHSPR]);
- Member in Canada’s Health Technology Analysis Exchange;
- Co-creation of new tools (for example: tool to assess quality of case series studies done with colleagues from Australia and Spain);

⁵⁰ Renewal of Grant Proposal for Building Evidence-Informed Policy Decision-making Capacity in Alberta: the Institute of Health Economics: July 21, 2008.

- Secondment of information specialists from the University of Alberta, who enhance their own targeted HTA skills and share their knowledge with others at the University libraries, building a base of HTA awareness;
- Ongoing interest from academic institutions to collaborate on apprenticeship programs for HTA;
- Interest by clinicians to collaborate in preparing manuscripts for peer reviewed journals (Ambassador Program, C-difficile);
- Participation in meetings, on working groups and committees and attendance at international conferences as presenters and participants; and
- Participation in meetings where outcomes contribute to increasing HTA capacity in Alberta (for example, the January 2010 Health Technology Assessment and Innovation stakeholder consultation sponsored by AHS. The feedback from discussions has been used to inform the development of the AHS HTAI Program⁵¹).

One aspect of capacity building has been to build the skills and capacity of emerging HTA champions in its own staff and in other organizations. Researchers for two of eleven projects covered by the researcher surveys reported that research led to additional qualifications for team members. In one case, a project led to the national recognition and invitations to serve as an external reviewer on other initiatives for the one of the principle investigators. As new members join the HTA Program team, their colleagues learn about other approaches to conducting systematic reviews, whereby expanding their horizons.

In addition, the HTA Program has enhanced the capacity of individuals outside IHE. For example, the *Effectiveness of organizational interventions for the prevention of occupational stress* (2009) HTA report was a collaboration with AHS that started with the Alberta Mental Health Board. The project lead gained knowledge and expertise through the HTA Program's skill development processes and ultimately was hired into a permanent position in Research Transfer in AHS that will enhance the use and application of evidence within mental health service delivery. Regarding a different project, one informant noted:

"This process has grown me, too. I'm used to working as a clinician within clinical hierarchy. I have never worked at the policy level before so the Ambassador Program has given me that opportunity."

HTA Methods Development

Four key informants suggest that IHE is regarded as a leader in HTA, within Alberta and internationally, particularly in relation to methodology and invitational forums such as the recent Methodology Forums sponsored by IHE and supported by the HTA Program.

As noted in annual reports, staff not only adhere to, but also further the development of best practices in the HTA community overall through activities including:

- Active participation or membership in key networks, national and international HTA organizations, such as Chair of an international ethics working group;
- Methodological advances through:
- Review of methodology used to produce rapid assessments

⁵¹ Health Technology Assessment and Innovation Branch at Alberta Health Services: Draft Strategic Plan March 17, 2010.

- Development of a tool to assess the methodological rigour of systematic reviews on low back pain
- Development of an adaptation process to meld several 'seed' guidelines into one contextualized provincial guideline
- Modifications of the AGREE instrument to make it more user friendly and reliable for appraisal and selection of evidence-based guidelines
- Development of a tool to assess quality of case series studies (in collaboration with colleagues in Australia and Spain);
- Development of a range of HTA products and a decision matrix to select the 'right' product for the provincial process for making coverage decisions (*Utilizing Diverse HTA Products in the Alberta Health Technology Decision Process*: March/10, for AHW);
- Conducted a workshop to determine the best resources (both sources of literature and personal contacts) to use in the Social System Demographics (SSD) section and to share the most useful MeSH headings and keywords to use in SSD searches with the other HTA partners; and
- Participation in conferences, in-house and third party workshops or training sessions.

4.4.5. Factors Influencing Utilization and Impact of HTA Program Products

Factors Facilitating Utilization

In a written survey, the primary HTA Program researchers for 11 STEp and HTA reports were asked to identify "factors that account for the research being adopted/utilized, or for the lack of adoption/utilization." Other key informants were also asked in interviews and focus groups to identify factors facilitating the use of HTA Program research. Two dominant themes emerged regarding important facilitating factors: the scientific rigour of HTA Program research; and involvement of stakeholders.

Primary researchers associated with five of the 11 STEp and HTA reports identified robust methodology as a key facilitating factor for research use and impact.

Key informants also noted that strong engagement of and communication with stakeholders, including the EAG and industry suppliers/manufacturers, contributed to more contextually relevant, usable reports. Engagement and collaboration between the researchers, reviewers, EAG and other stakeholders is important at multiple stages of the process of report production: defining the scope of the project and the core research questions; reviewing draft reports; and, translating knowledge to users.

"Involvement of important stakeholders at various points in the review process improved relevance and trust in the evidence produced and enhanced its impact."

"The research team used an open-door policy so that interested parties could request meetings with the research team. As a result, the researchers and the interested parties could develop a partnership of trust, respect, and common ground, an important first step to successful dissemination and utilization of any research findings."

Other factors facilitating research utilization cited by respondents include:

- Timeliness and accessibility of the reports;
- Sufficient information available about the local context;
- IHE's reputation for accuracy and reliability;
- Alignment between the research question and the policy question; and

As highlighted by these last two factors – alignment of policy and research questions and integration with AHTDP – respondents see supporting evidence-informed decision-making as a core function of the HTA Program and correspondingly noted the importance of processes that support this function.

“Our projects are within the formal process of the STEp review [and] always feed into a policy document and a decision. I think the reviews we do are very impactful but that's in part because Alberta has a specific process to review devices.”

Barriers to Utilization

Key informants were also asked to identify barriers to the utilization of HTA Program research. The results, in descending order of the frequency with which they were cited, include:

- Insufficient or weak research evidence;
- Timeliness and relevance of the report for priority policy decisions;
- Availability of funding to implement recommendations;
- Research questions that cannot be answered through an HTA or do not effectively align with decision-making information needs;
- Findings that are not in line with the direction policy makers are prepared to take, or are already taking;
- Restrictions on publication and/or public distribution of certain reports; and
- User-friendliness of reports from the practitioner perspective.

Although inadequate evidence was frequently cited as a barrier to utilization of HTA Program reports, some informants pointed out that documenting the lack of robust evidence serves an important purpose in itself. Even when evidence is insufficient to conclusively answer the research question, HTA products can have impact through informing decision making and further research.

“Making a decision based on the knowledge that there isn't enough information is better than making that decision not knowing that there's not enough information.”

“The report's main contribution is to generate further research ideas...The lack of evidence on the effectiveness of interventions should motivate researchers and people in the education, public health system and justice centres to evaluate new preventative approaches.”

“Sometimes local decision makers are not ready to make change even if the report says change is needed. In the meantime, other provinces or countries may use the information and it makes an impact there.”

Suggestions to Increase Utilization

The surveys, focus groups and interviews all elicited suggestions for how the HTA Program could further facilitate or encourage the utilization of its research. The following categories of suggestion are in descending order of the frequency with which they were cited by respondents.

- *Communication and collaboration:* Many of the suggestions relate to improving communication and collaboration between the HTA Program, requesters, experts, decision makers and other HTA organizations. Specific suggestions for improving collaboration and communication include: “help requesters identify the right questions”; “tell requesters about what has been done elsewhere [by other HTA organizations]”; and “improve collaboration among HTA teams.” One informant recommended building decision makers’ understanding of the HTA process.

Additionally, engaging with universities was suggested as a way to access “emerging” research instead of “reacting to what is developed and on market” because “if you wait till it comes to market, it is already too late.” Being “involved in translational research” could address concerns about long report timelines diminishing their relevance in decision making.

- *Branding and awareness:* Increasing awareness of IHE and the work of the HTA Program was suggested by respondents both internal and external to IHE. Suggestions for increasing awareness of the HTA Program and its products included improving the “branding” and encouraging wider dissemination of reports.

“Branding. If you knew IHE was the place to go for information/advice and an easy way to get it [you’d go there]...if I went to IHE like I would PubMed...their work is evidence-based and thoughtful....let’s look at their information because of these attributes.”

“The reports need to be more widely viewed and distributed. Our distribution list has been cut back a lot over the years but with the web we should be able to send out more widely. A lot of people have no idea what we do.”

- *Publishing:* Two respondents recommended supporting the generation of further publications from HTA research as a way to promote research utilization and uptake. One proposed committing dedicated resources, such as a percent of staff time, to support the development and submission of articles for publication in scientific journals.

4.4.6. Leveraging of Funds

A positive unanticipated outcome of the HTA Program is the way in which it and IHE have leveraged funds provided in the two agreements under discussion to access additional funding or provide value added services. For the most part, activities are related to capacity building or contributing research evidence that can inform decision making at both the policy and clinical level. Examples are noted in Table 15.

Table 15: Leveraged HTA Program Funds

Initiative	How Funds Leveraged
<p><i>Healthy Mothers, Healthy Babies</i> Consensus Conference</p> <p>Contracted 2 physicians in Ontario to update their systematic review</p>	<p>Was initially proposed while the HTA program was still at AHFMR and was done with some funding from them; led to publication of an IHE book (<i>Determinants and Prevention of Low Birth Weight: A Synopsis of the Evidence</i>).</p>
<p><i>Fetal Alcohol Spectrum Disorder</i> Consensus Conference</p>	<p>Two HTAs were completed in preparation for this conference (<i>An overview of systematic reviews on the prevention, diagnosis, and treatment of fetal alcohol spectrum disorder</i>, and <i>A systematic review of the effectiveness of prevention approaches for fetal alcohol spectrum disorder</i>) both of which later became chapters in the following book:</p> <p>Classen S, Salmon A, Jonsson E (eds). <i>Prevention of Fetal Alcohol Spectrum Disorder FASD. Who is Responsible?</i> Wiley-Blackwell, Weinheim, Germany, March 2011</p> <p>Partial funding for the book came from the Public Health Agency of Canada</p>
<p><i>Effective Dissemination of Findings from Research (June/08)</i></p>	<p><i>Effective Dissemination of Findings from Research</i> is a collection of essays that came out of a one day symposium organized by IHE on the subject. The Ambassador Program is featured in this document.</p>
<p>Ambassador Program</p>	<p>*CCOHTA now CADTH (Initial \$100,000 grant for Phase 1 in 2004/05); HTA agreements provided sustained funding for Phase 2</p> <p>*AHFMR now AIHS (in-kind and other funding for KT strategies)</p> <p>*Canadian Pain Society: funded the evidence generation for the development of their guideline on non-pharmaceuticals in neuropathic pain</p> <p>*CIHR grant <i>Community Alliances for Health Research and Knowledge Exchange in Pain</i> (Co Principle Investigators: P. Taenzer & S. Rashiq) to evaluate the impact of the Ambassador Program KT strategy (\$70,000 per year for 5 years beginning Feb. 2008)</p> <p>*Unintended outcome during the development of the low back pain guideline was the initiation of the national development of the opioid guideline by the Provincial Colleges of Physicians and Surgeons</p> <p>*TOP reformatted the low back pain guideline for their website and created 'mobile' version for physicians.</p> <p>*HTA reports in 2001-2003 were influential in support of the establishment the Calgary Pain Centre as a permanent program</p>
<p><i>Encouraging Optimal Use of DI in Low Back Pain: October 2010</i></p>	<p>AHW agreed the IHE could re-allocate the funding from 'pre op' project to support a 2 day workshop that brought together a wide range of stakeholders from across Alberta and other provinces (BC, Sask, Ont) to discuss potential KT strategies for implementing the diagnostic imaging recommendations from the CPG on low back pain. The report was provided to AHW and proceedings were posted on IHE website.</p>

Initiative	How Funds Leveraged
<i>Means Restrictions for Suicide Prevention</i>	Report consists of two parts: Part I is an overview of national means restriction strategies/policies and Part II is effectiveness of intentional overdose prevention strategies/ policies at the national and provincial levels (requested and funded in part from the Intentional Overdose Initiative of the previous Alberta Mental Health Board)
<i>For Which Strategies of Suicide Prevention is there Evidence of Effectiveness?</i>	This review is an update of a previous overview of reviews requested and funded in part by the World Health Organization, Health Evidence Network.
MACH report (2010)	The Minister's Advisory Committee on Health (MACH) recommended the "establishment of an arm's-length entity to support evidence based decision-making throughout the health system". Implementing this recommendation would bring significant changes to the existing system of HTA delivery within Alberta and have major ramifications for various stakeholders involved. AHW requested that surplus funds from the HTA Program grant be used to prepare this report to support the deliberations on this topic.
<i>Comparative Effectiveness: An Overview (2008/09)</i>	Comparative effectiveness was discussed at workshop hosted by AHW to discuss the future expansion opportunities for the AHTDP.
<i>Parkinson Disease: A Policy Perspective (2009)</i>	HTA Program provided support in the publication stages of the Wiley book on <i>Parkinson Disease: A Policy Perspective</i> .
<i>Safety and efficacy of inhaled nitric oxide in the management of hypoxemic respiratory failure in adults with acute respiratory distress syndrome, (April 2007)</i>	Co-author Greg Duchscherer was a SEARCH Classic participant from the (then) Calgary Health Region. He did this review with the assistance of HTA Program staff in addition to SEARCH Canada ⁵² . This paper changed policy and practice in ICU in Calgary.
<i>Teleoncology: applications and associated benefits for the adult population (April 2007)</i>	Co-author Marie-Josée Paquin was a SEARCH participant from the Alberta Cancer Board, Medical Affairs and Community Oncology, Edmonton, Canada. She did this report with the assistance of HTA Program staff, the SEARCH Canada Program and the Alberta Cancer Board.
<i>Effectiveness of Organizational Interventions for the Prevention of Occupational Stress</i>	To build capacity for applied mental health research in Health Technology Assessment (HTA) in Alberta, the then-Alberta Mental Health Board and the Institute of Health Economics (IHE) partnered to explore the issue of workplace mental health, one of the research priorities of the Alberta Mental Health Research Partnership Program. The skill development position was funded by the Partnership Program through a contractual arrangement.
Online discussions	The HTA Program provided funding to support development of online discussions.
Online libraries	The HTA Program provided funding to support development of online libraries.

⁵² SEARCH Canada is a not-for-profit, member-funded organization that helped health organizations create, choose and use research evidence in innovative practice settings to enhance decision-making capacity. SEARCH Classic was a health research and professional development program for community-based health professionals in Alberta. SEARCH Canada ceased operations September, 2009.

4.4.7. Challenges in assessing impact

A number of key informants, particularly HTA Program staff and researchers, commented on the challenges of assessing the impact of HTA Program products. Two prominent themes in this regard were: how to define impact; and, how to trace and assess impact, especially as it relates to policy decisions and changes in practice.

Most IHE staff and researchers who participated expressed agreement that influencing policy and decision making is a key goal for the HTA Program's products. Some projects are initiated to answer a policy question, are able to provide a recommendation to that question, and are used to inform a subsequent decision. In many cases, however, the nature of 'impact' is harder to define, and the focus on policy impact made it difficult for respondents to recognize and report other, sometimes less obvious, forms of research utilization. Informants expressed uncertainty about how to classify the impact of reports that confirmed existing practice, or reports that found insufficient evidence to recommend a decision, or projects that did not address a question of efficacy at all, but rather further informed the problem.

"It is hard to refer to "utilization" in the context of this report as it does not address any question of efficacy/effectiveness, but it informs...the problem and what are the risk factors..."

"If HTA is policy-oriented research then its main impact is influence on policy decision making and that's a very difficult thing to get at. It's not about publications, about how many other people use it because it's highly contextualized..."

Hanney et al. (2007) report similar feedback on their survey of researchers for NHS HTA Programme reports. Their evaluation affirms the importance of HTA evidence that "help[s] inform decisions not to introduce particular screening programs" and acknowledges that "although important, this is sometimes difficult for researchers to record as an impact."⁵³

A number of respondents commented that in many instances, HTA researchers and staff are not in a position to know the impact of their work once it is completed. There is no formalized process in place for researchers to follow up with 'users' on 'how' the evidence was used. There may be many users and there is no requirement by users to communicate how they used the evidence. At least three informants noted that there are many factors that go into decision-making, and it can be difficult to discern from outside the process the relative influence of different factors. One researcher observed that sometimes reports that seemed very strong ended up having less reported impact⁵⁴ than other reports that had expressed weaker conclusions.

"...a lot of it [impact on policy] is just luck. I don't mean that in a bad way. It's a confluence of things that we don't have a lot of control over – the timeliness of the question, the relevance to the policy decision, the fact that we get it there at the right time."

⁵³ Hanney S, Buxton M, Green C, Coulson D and Raftery J (2007). An assessment of the impact of the NHS Health Technology Assessment Programme. *Health Technology Assessment*, p.57.

⁵⁴ Reported through INAHTA Impact Framework forms completed at a set interval after the completion of the project by the requesters.

“We do not have good feedback about how our reports help in [a] decision about that process.”

Similarly, some respondents to Hanney et al.’s (2007) NHS HTA Programme researcher questionnaire “pointed out that it was very difficult for researchers to know about the level of impact, especially on behaviour.”⁵⁵ The authors acknowledge this as a “fair point” but argue that it “does not undermine the case for asking the question as a way of getting a broad-brush response...and as a starting point for more detailed case studies.”⁵⁶ The latter point speaks to the experience of this evaluation as well. While the researcher surveys did not yield the richness of data hoped for, they provided an excellent starting point for more in-depth interviews. Although researchers demonstrated hesitation to respond affirmatively to the close-ended questions of the survey if they felt they could not empirically justify their response, open-ended interview questions offered an opportunity to explore the nuances of some of those same questions.

At least one respondent proposed improving documentation of the impact of HTA Program products on decision-making: “we need to link this policy to this report from IHE...I want to see that there are some policies, some decisions based on this report.” The respondent suggested that “that kind of evaluation...might maintain our thing – people trust in our reports.”

4.5. Overarching Strengths and Weaknesses

Interview and focus group participants were asked what is currently working well in the HTA Program, what challenges have been encountered, and what are key opportunities or suggestions for the future. These findings are synthesized from multiple stages of the evaluation; the lists are not exhaustive but represent the themes raised most frequently across the evaluation phases and different key informant groups.

The program strengths and achievements most frequently cited by respondents were:

- The HTA Program’s perceived role as a leader in its field with a solid reputation in local and international HTA communities;
- Program staff and leadership’s commitment to maintaining “gold standard” methodological practices with an emphasis on scientific rigour and high quality products;
- The HTA Program staff constitutes a consistent, efficient, productive and dedicated team;
- Access to a critical mass of health economists at IHE;
- The capacity and ability to innovate (e.g. Ambassador Program, publications on comparative effectiveness, ethics work, methodology development);
- The program’s contributions to building HTA capacity within the IHE and in the broader research and health care communities;

⁵⁵ Hanney S, Buxton M, Green C, Coulson D and Raftery J. An assessment of the impact of the NHS Health Technology Assessment Programme. *Health Technology Assessment*, p.57.

⁵⁶ Hanney S, Buxton M, Green C, Coulson D and Raftery J. An assessment of the impact of the NHS Health Technology Assessment Programme. *Health Technology Assessment*, p.57.

- The program’s flexibility and adaptability in response to changing HTA needs in the province; and
- Its arms-length, objective, and independent approach.

The challenges and gaps most frequently identified were:

- The environment in Alberta, with the changes engendered by the creation of AHS, implementation of a new research strategy for Alberta, the distributed nature of HTA production in the province and the current politics of health and research pose challenges for the planning, execution and utilization of HTA Program work;
- The dual demands of producing timely feedback for decision makers and maintaining methodological rigour and quality can be difficult to negotiate for researchers and requesters alike;
- IHE needs to increase awareness and visibility, especially within Alberta, regarding itself and its HTA related products and services. One respondent suggested the program consider improving its “branding”; and
- The process of defining an appropriate research question – a key foundation for a relevant and useful report – was cited as a challenge by both program staff and external informants.

5. Case Studies

Case studies are an important method in the assessment of health research programs as they can provide a “more robust and informative analysis than can be obtained from questionnaires alone.”⁵⁷ The case study methodology employed in this evaluation is modeled on that of Hanney et al. (2007)’s evaluation of the NHS HTA Programme in the United Kingdom,⁵⁸ but adapted to suit the situation of the HTA Program. While it is acknowledged that the scope of a provincial HTA program, such as the one being reviewed in this report, is less than a national program, the components are still similar.

Based on the criteria outlined in Subsection 2.3.7, three HTA Program projects were selected for in-depth analysis:

- *Treatment for Convicted Adult Male Sex Offenders*, an HTA report completed in 2010;
- *HPV Testing in Alberta*, a STEp report completed in 2009; and
- The Ambassador Program, a knowledge translation initiative within the HTA Program.

The case studies built on the data from the researcher surveys and overall document review with interviews with the lead HTA Program researchers and at least two external key informants for each project. External informants were identified by the HTA Program Director based on their involvement with the projects as requesters, recipients, expert advisors or collaborators. Additionally a more in-depth analysis of key project documents was undertaken.

⁵⁷ Hanney S, Buxton M, Green C, Coulson D and Raftery J. An assessment of the impact of the NHS Health Technology Assessment Programme. *Health Technology Assessment*, 11:53, p.59.

⁵⁸ Hanney S, Buxton M, Green C, Coulson D and Raftery J. An assessment of the impact of the NHS Health Technology Assessment Programme. *Health Technology Assessment*, 11:53.

Descriptions of each case study are guided by the stages of the Health Economics Research Group (HERG) payback model used by Hanney et al. (2007):

- Stage 0: Needs assessment (proposed adaptation to “context and project origin”);
- Interface A: Project specification and selection (or rationale);
- Stage 1: Inputs (including consideration of the IHE adaptation and culture/values indicators in our conceptual model);
- Stage 2: Processes;
- Stage 3: Primary outputs (product and service outputs);
- Interface B: Dissemination activities and products (research transfer/knowledge exchange);
- Stage 4: Secondary outputs: informing policy; and
- Stage 5: Applications by practitioners and public.⁵⁹

The impact achieved by each case study was scored using eight scoring scales developed by Hanney et al. (2007).⁶⁰ A cross-case analysis was conducted to identify factors associated with levels of impact.

5.1. Project Descriptions

5.1.1. Sexual Offenders Treatment Program

Sexual offending has become a major challenge for social policy because of the high human and financial costs to victims as well as the high public investment in social and health services, and in policing, prosecuting and incarcerating sex offenders. There is an expectation that the correctional systems should make reasonable efforts to reduce the potential that convicted sex offenders will reoffend. One common approach to sex offenders’ management in countries with developed market economies is to provide specialized treatment programs. A number of different sex offender treatment (SOT) programs have been developed and are currently operating, but there continues to be controversy regarding their efficacy. In 2008, there was pressure to close sex offender inpatient beds in Alberta. The Alberta Mental Health Board initiated a request that would help policy-makers sort through the evidence-based choices. This HTA review occurred between May 2008 and October 2010. An Expert Advisory Group (EAG), composed of clinical experts and program administrators, was first convened in October 2008 to provide advice and direction to the researchers.

The objective of the SOT project was to evaluate the effectiveness of psychotherapy and pharmacotherapy interventions delivered within SOT programs to reduce the likelihood of reoffending in convicted adult male sex offenders 18 years of age and older without neurodevelopmental disorders. The initial assessment involved an overview of systematic reviews (SRs) and the EAG agreed that if more evidence was needed, a SR of primary research would be conducted. Systematic reviews published in

⁵⁹ Hanney S, Buxton M, Green C, Coulson D and Raftery J. An assessment of the impact of the NHS Health Technology Assessment Programme. *Health Technology Assessment*, 11:53.

⁶⁰ Hanney S, Buxton M, Green C, Coulson D and Raftery J. An assessment of the impact of the NHS Health Technology Assessment Programme. *Health Technology Assessment*, p.173.

English between January 1998 and June 2010 were appraised independently by two researchers using AMSTAR (a measurement tool to assess the methodological quality of SRs). The publication limitation was imposed to ensure that the evidence collected was current and clinically relevant since many changes in sex offender treatment and care occurred during the mid-1990's. Two external reviewers with expertise in SOT and HTA methodology evaluated the draft final report to ensure important and clinically relevant information was included and the methodology used was scientifically robust. Requesters and recipients of this report felt that this rigorous process ultimately lent credibility to the final recommendations and made subsequent decisions more defensible. Only minor changes were made to the final report as a result of the external review process.

The final report provided a structured synthesis of the current state of SOT practice. The authors conclude:

“While the evidence from seven moderate to high quality SRs suggests that SOT has the potential to reduce sexual and nonsexual recidivism, the reported findings provide stronger support for the effectiveness of cognitive behaviour therapy (CBT) approaches and for programs adhering to the risk/need/responsibility model...Given the methodological problems of the available primary research, it is difficult to draw strong conclusions about the effectiveness of SOT programs using various CBT approaches for such a heterogeneous population. The reviewed evidence does not provide clear answers to what are the components of an optimal SOT program and to whether where the program is delivered matters.”⁶¹

A task force (which included local clinical experts) was convened while the report was still in draft and within a few short months developed 15 recommendations regarding province-wide delivery of services for sex offenders in Alberta. Less than six months after the draft report was tabled, one of the recipients reported that as a result of the HTA evidence, the type of sexual offender being admitted to a sex offender therapy program at the Alberta Hospital Edmonton had changed with more focus on high risk and those with psychiatric disorders. The report authors also discussed the benefits of a cognitive behaviour approach and the provincial program has already adopted this into their practice. Subsequent to the completion of the HTA report, other researchers published related work that validated its findings.

The research team is currently working on a manuscript for publication. They have been asked to participate on a joint panel at the 2011 HTAi Conference (HTA for Health Systems Sustainability) on how to use HTA to inform decisions on public safety issues. Colleagues in Sweden heard of this work and invited the team to showcase the methodological approach and how findings were used in decision making. The report was posted on the IHE website and had 110 hits in less than 6 weeks. Within two months of posting, it was cited on blogs, university library websites, the Swedish Council on Health Technology Assessment website, and was part of the collection in four Canadian libraries.

⁶¹ Corabian P., Ospina M., & Harstall C. (2010). *Treatment for Convicted Adult Male Sex Offenders*. Alberta: Institute of Health Economics. p.iv.

5.1.2. Human Papillomavirus Testing in Alberta: STep Report

Human Papillomavirus (HPV) is one of the most common sexually transmitted infections which can also lead to most cervical cancers. Cervical screening aims to reduce cervical cancer incidence and mortality by detecting precancerous lesions early. Until the recent introduction of liquid-based cervical cytology and HPV-DNA testing, conventional cervical cytology (Pap smear test) was the only cervical screening test available in Canada. The provincial committee that reviews health technologies and topics requested an HTA to better understand the impact of alternative screening/testing strategies for cervical cancer on health care costs and health outcomes.

This comprehensive assessment was initiated in March 2008 with a final report approved May 2009. The initial objectives were to review the safety and effectiveness, social considerations, and fiscal and economic considerations for the provision of HPV testing, compared to conventional cytology (CC) and liquid based cytology (LBC). The HTA Program was asked to expand the project to categorize women into two age groups – over and under 30 years of age – and to take various screening intervals into account for the economic model; a budget impact analysis was requested at a later date. An EAG was convened and included policy makers, oncologists, obstetricians, general practitioners and others involved in women's health; some of the physician champions on the EAG were strong advocates for the technology under review.

Throughout the study period several independent streams of activities were occurring that had the potential to further influence decision making at the policy level including: CADTH had done an HTA on this subject although with different objectives and target audiences; some of the health regions in the province had independently made the decision to move to LBC and implementation had already begun; the Alberta Cervical Cancer Screening Working Group's guideline (published in 2000 and updated in 2007), was under review and the value of HPV DNA testing in routine primary screening or triage had yet to be decided; a trial was ongoing in British Columbia to assess the role of HPV DNA testing as a primary screening tool and was not expected to be finished until 2014; Alberta had introduced the HPV vaccination (2008) as a primary prevention strategy for girls entering Grade 5 (before they begin sexual activity and risk exposure to HPV); and finally, a change in governance of Alberta's health system came about with the merger of all provincial health authorities into one board, AHS, as of April 1, 2009. Hence policies and procedures of all provincial health authorities would soon be under review with the intent of creating one provincial standard to which all health care providers would be expected to conform.

The goal of the HTA was to evaluate the published research evidence and to present the results in a transparent, unbiased manner. During the course of the review questions arose about the quality of the primary studies being reviewed for the technology effects and effectiveness section as these would be of interest to the guideline development group. External expertise was sought to review some of the statistical calculations for the screening tests' performance. Attempts were made to contact some of the authors of included studies to obtain supplementary details on the publications and to ensure the accuracy of information included in the report. Supplementary technical information was obtained from the manufacturers of the HPV DNA assays. To ensure robustness of the methodological approach, the entire technology effects and effectiveness section was externally reviewed.

The economic component was conducted by economists on the team and deliverables included: a literature review, an economic evaluation, cost attribution, budget impact, and a desktop tool on the topic. The Alberta Cancer Board had records of incidence rates across the province and the ability to use

this local data for the budget impact analysis strengthened the evidence reported as it directly reflected the Alberta context.

In their conclusions, the authors stated: “current research evidence supports the use of the Pap smear test or the LBC test as a primary screen in any age group and the HPV DNA test as a triage tool for women in any age group with ASCUS (Atypical Cells of Undetermined Significance) cytology.”⁶² The conclusions for the economic questions stated: “for primary screening, alternatives using conventional cytology or LBC are more cost effective than alternatives employing HPV testing. For use as a triaging tool, the cost effectiveness of HPV testing is variable and is dependent on the alternatives considered.”⁶³ If the decision to include Pap smear testing had not been taken, the conclusions would have stated that LBC plus HPV with a 30 year old age restriction was an improvement over current practice at the time. However, because Pap smear testing was included, Pap smear testing plus HPV seemed to be an even better improvement.

The final report was provided to the AHW and made publicly available through the IHE website as of early November 2010. It is cited in the McGill Dept. of Oncology Annual Report 2008/2009. No libraries have this report in their collection. This review led to a scientific publication.⁶⁴ The Principal Investigator for the economic analysis is now routinely being asked to serve as an external reviewer for research proposals in oncology including Canadian Cancer Society Research Institute and Canadian Breast Cancer Foundation. Researchers in other provinces have contacted research team members to determine the generalizability of findings and adaptability of economic analysis to their setting. Seven workshop and conference presentations on this report have been conducted: four for primarily practitioner audiences; two for primarily service user audiences; and one for a primarily academic audience.

A policy recommendation was made by AHW on this topic stating that HPV for triage would be implemented but no discussion was included as to how it would be embedded in the existing infrastructure or how the testing service is delivered (that is, Pap smear versus LBC). Given that many sites in the province had already moved to LBC, a decision was taken that this would become the provincial standard and further investments in machines and personnel occurred to bring the remaining sites onboard. An operational impact assessment was conducted two years after the report. At this time the budget impact assessment report, done as part of the initial review, was deemed irrelevant as it had been completed when the Pap smear was still the de facto test. Between that time and when the impact was being assessed, the province had already moved to LBC so the cost of introducing HPV wasn't as much of an issue.

One of the expected outcomes of this policy decision is an increase in the volume of colposcopy tests requested across the province. LBC plus HPV has a higher sensitivity (resulting in more true positives) and a lower specificity (resulting in more false positives) and both combined will result in the request for more of this confirmatory testing.

This STEp report is an example of a comprehensive review that provided evidence on all the questions being posed but other factors ultimately impacted the policy that was developed.

⁶² IHE (May 2009). HPV Testing in Alberta, page ix.

⁶³ IHE (May 2009). HPV Testing in Alberta, page xi.

⁶⁴ Chuck A. (2010). Cost-effectiveness of 21 alternative cervical cancer screening strategies. *Value in Health*, 13:2, 169-179.

5.1.3. Ambassador Program

In 2004, the HTA Program at AHFMR had been exploring the impact of its work and developing new strategies for HTA dissemination and research uptake. At the same time, a new grant program was established by the Canadian Coordinating Office for Health Technology Assessment (CCOHTA, now CADTH) to improve knowledge transfer processes, methods and tools for HTA. A successful grant application was developed through the collaboration of multiple stakeholders across the province of Alberta resulting in the HTA Ambassador Pilot Program which was modeled after the Swedish Ambassador Program but modified for the Alberta context. The intent of this one-time grant of \$100,000 was to transmit HTA evidence from researchers to front-line clinicians and decision makers through the use of local ambassadors. In 2006, the provincial HTA program at AHFMR was relocated to the IHE and the Ambassador Program became one of their signature offerings. Provincial government funding via grant agreements with the IHE has allowed the program to evolve and expand beyond the original intent conceived in the early 2000s.

This multi-year, multi-phase, research and knowledge translation initiative had a modest start but is now a separate program within the HTA Program due to its scope and scale, and represents a significant resource intensive activity. It not only promotes the use of evidence in pain management but contributes to other core activities of the HTA Program including collaboration and capacity building, methodology development, skills development, and network and exchange activities. Lessons learned throughout its evolution have broader applicability for the health system where practice is divergent from the evidence.

A description of the various phases of the Ambassador Program follows.

Phase 1

The HTA Ambassador Pilot was conducted throughout the fiscal year 2004-2005 and brought together 14 partner agencies representing clinical opinion leaders, HTA researchers and health care providers to explore the evidence on community-based treatment options for chronic low back pain. Two researchers were involved in independently appraising the systematic reviews. Four researcher and three clinical ambassadors developed summaries of evidence on 18 interventions that best reflected community practice in the province (e.g., acupuncture, exercise therapy, long-acting opioids, trigger point injections) and reflected the best, most recently published research evidence on these various interventions for managing chronic non-malignant pain. These *Evidence in Brief* summaries were the primary teaching tools used in eleven interactive workshops conducted across the province, with 130 individuals.

Evidence in Brief summaries were disseminated via the HTA Ambassador Program website⁶⁵ and updated quarterly if new evidence was available, until August 2009 (just after the release of the low back pain guideline). A report, *Gathering the Evidence*, describes the methods used to collect the evidence and is available.⁶⁶ Since this evidence is now part of the guideline for low back pain, no further updates to these Evidence in Brief summaries are expected.

⁶⁵ <http://ihe.ca/research/ambassador-program/>

⁶⁶ <http://www.ihe.ca/research/ambassador-program/--low-back-pain/methods/>

Multiple presentations to provincial and international audiences were made as were media events undertaken to raise awareness of the Ambassador Program among a broader audience.

An invitation to participate at the September 2006 International Collaboration on Evidence-based Critical Care Anaesthesia and Pain meeting to produce a book financed by a grant from the International Association for the Study of Pain resulted in a chapter on the Ambassador Program in the book *Systematic Reviews in Pain Research: Methodology Refined*.⁶⁷ It focuses on Phase 1 of the project (partnerships, development of the *Evidence in Brief* summaries, outcomes/workshops, future, and introduces the work on the low back pain guideline). The book was showcased at the August 2008 World Congress of the International Association for the Study of Pain Conference.

An external evaluation showed the ambassador model to be a very effective means of knowledge transfer and that the model could be applied to different topics in the area of chronic pain and other health or clinical practice areas.

Phase 2

Phase 2 started in 2006 and built upon the successes of the pilot focusing on constructing an evidence-based, Alberta-specific clinical practice guideline (CPG) to assist primary care clinicians in the management of non-specific low back pain in primary care settings. The approach taken was to adapt pre-existing guidelines in an “effort to reduce duplication of work already completed, decrease the resource commitment, increase efficiency, and enhance local uptake. This approach enabled the adaptation and contextualization of quality international and national guidelines on the prevention and management of low back pain to the provincial health care system”.⁶⁸ A multi-disciplinary group of health professionals from across the province as well as a patient advocacy group were engaged to assess recommendations from other sources (including the *Evidence in Brief* summaries) in the context of their own expertise and experience. At the time, no one had previously adapted guidelines in this way and the HTA Program had to develop a process that was scientifically rigorous and justifiable to the community. The *Evidence Informed Primary Care Management of Low Back Pain* guideline released in March 2009 was the outcome. The guideline provides recommendations for primary care management across the spectrum of low back pain from prevention to chronic.

The guideline has been widely disseminated by Alberta health professional colleges and associations and has the distinction of being among the ten most downloaded guidelines in the Canadian Medical Association's clinical practice guideline database from January 2010 to February 2011. Endorsement by the Toward Optimized Practice (TOP) Program, an organization that helps Alberta physicians implement clinical practice improvements into their clinic, has given the guideline credibility within the physician community as they host the CPG (PDF and mobile versions) on their website.⁶⁹ The guideline is listed in the national guideline clearinghouse, a public resource for evidence-based clinical practice guidelines sponsored by the US Agency for Healthcare Research and Quality (AHRQ).⁷⁰ Anecdotal evidence is being heard about clinicians already integrating the guideline into their electronic medical records.

⁶⁷ *Research Translation for Systematic Reviews into Community Practice: The Alberta HTA Chronic Pain Ambassador Program. In: Systematic Reviews in Pain Research: Methodology Refined (2008);* McQuay HJ, Kalso E, Moore RA Editors.

⁶⁸ Ambassador Program: Process Evaluation. Sumera Management Consulting, June 10, 2009 (10).

⁶⁹ The CPG is linked at: http://topalbertadoctors.org/informed_practice/cpgs/low_back_pain.html.

⁷⁰ National Guideline Clearinghouse: <http://www.guideline.gov/>.

Focused efforts were undertaken to identify new and innovative ways for bringing this research into practice. One strategy was the development of patient handouts (*What You Should Know about Chronic Pain; What You Should Know about Acute Pain*) created for primary care clinicians to share and discuss with their clients during clinic visits. These one-page handouts were also vetted through patient focus groups to ensure relevancy and clearness of messaging. Through this approach the handouts summarize the research evidence on how to treat low back pain in a way that is both practical and usable for clinicians and their patients.

Another dissemination strategy was the development of a YouTube video entitled *Get Back at It*.⁷¹ This three minute video reinforces some of the recommendations in the guideline and encourages people with acute low back pain to keep active. Finally, a workshop was held the fall of 2010 with a broad range of health care providers to discuss the specific recommendations related to diagnostic imaging and red flags and their implications for practice in Alberta. These discussions will inform the next step which is to update the CPG to reflect current research evidence; a commitment made by the Ambassador Program and again, something that has never been done before and for which no roadmap exists. The Principal Investigator on the original CCOHTA grant for Phase 1 and who has remained integral to the Ambassador Program and its governance structures was awarded, in 2008, a five year grant from the Canadian Institutes of Health Research (CIHR) to do an impact assessment of the Ambassador Program KT strategies.

Several publications have arisen from this work. The Ambassador Program itself has been featured in the *Alberta Health Services (AHS) Connect* newsletter (June 2009), an IHE report *Effective Dissemination of Findings from Research – a Compilation of Essays* (June 2008) and in the book *Chronic Pain: A Health Policy Perspective*⁷² which details the experiences of the Ambassador Program and treatment, policy and program options for chronic pain. It has also been cited in the report *Action Plan for the Organization and Delivery of Chronic Pain Services in Nova Scotia*⁷³ and a commentary will be published shortly. In addition, five articles have been published in peer reviewed journals such as *Pain Research & Management*, *Journal of Evaluation in Clinical Practice* and *Physiotherapy Canada*. Previous HTAs completed in the early 2000s, one on the prevalence of chronic pain and the other on the effectiveness and efficiencies of multi-disciplinary pain clinics, were influential in the creation of the Pain Centre located in one of Alberta's major urban centres.

Methodological innovation of relevance to the national and international HTA community resulted in modification to the AGREE⁷⁴ instrument making it more user friendly and reliable for the appraisal and selection of evidence based guidelines; a peer-reviewed journal publication resulted.⁷⁵ Multiple presentations at national and international workshops, conferences and meetings have been provided by project staff as well as partnering organizations and ambassadors themselves. One example is a brief

⁷¹ The video can be viewed at: <http://www.youtube.com/watch?v=lkPv72O9ums&sns=em>.

⁷² Taenzer P, Schopflocher D, Rashid S, Harstall C. The Alberta Chronic Pain Ambassador Program. In: Rashid S, Schopflocher D, Taenzer P, Jonsson E, editors. *Chronic Pain: A Health Policy Perspective*. Weinheim, Germany: Wiley Blackwell; 2008: p.255-72. More information: <http://ca.wiley.com/WileyCDA/WileyTitle/productCd-3527323821.html>.

⁷³ Nova Scotia Chronic Pain Working Group. *Action Plan for the Organization and Delivery of Chronic Pain Services in Nova Scotia*. July 19, 2006.

⁷⁴ AGREE, short for the Appraisal of Guidelines Research and Evaluation, is an international collaboration of researchers and policy makers who seek to improve the quality and effectiveness of clinical practice guidelines: www.agreecollaboration.org.

⁷⁵ Scott NA, Moga C, and Harstall C. (December 15, 2009). Making the AGREE tool more user-friendly: the feasibility of a user guide based on Boolean operators. *Journal of Evaluation in Clinical Practice*, 15:6, p.1061-1073.

note published in the Winter 2011 newsletter of the Canadian Pain Society about the extensive dissemination activities undertaken by the Ambassador Program.

A process evaluation of the development of the low back pain guideline was undertaken to identify the successful strategies and major challenges, benchmark the process with the ADAPTE framework⁷⁶ and identify opportunities for improvement to replicate the process for future phases.

Overall feedback from Ambassador Program participants was extremely positive. There was strong consensus among the stakeholders interviewed that the process used to develop the CPG for low back pain was a sound and rigorous research process that produced an evidence-based guideline to be used by health care providers from multiple disciplines. All members of the Guideline Development Group (GDG) indicated they would participate in the Program again if they had the capacity available in their full-time positions. Some changes were suggested. A slightly revised model was proposed to clarify the roles and responsibilities of the various committees by creating a charter. This approach is currently being used in the development of a CPG for headache.

An advisory committee endorsed the development of the headache CPG in February 2010. The guideline development group has at least fifteen (15) partner organizations involved reviewing the research and developing a CPG that is relevant for the Alberta context. Currently draft recommendations are being finalized in preparation for pilot testing in the summer of 2011.

Strong collaborations continue to be a hallmark of the Ambassador Program and will be important in future uptake as there continues to be wide variability in treatment. Plans are underway for a provincial pain service and the ability to have a rigorous, scientific basis for service delivery is seen as an important factor in influencing practice and ultimately improving health outcomes. Key informants feel the Ambassador Program is well positioned to provide this foundation for future health topics.

5.2. Discussion

Two of the three case studies included in this review are reflective of the major types of reports the HTA Program produces (HTA reports and STEp reports) in response to policy or clinical questions; the third is a separate program within the HTA Program that grew in scope from modest beginnings. The case studies were undertaken to provide more detailed examples of impact.

5.2.1. Scoring

Case studies were then analyzed using the scales identified in Hanney et al. 2007.⁷⁷ Eight scales are used to assess four payback categories:

- Knowledge production (HTA Report + publications);
- Research benefits (capacity building + research targeting);
- Informing policy making (nature of the policy + degree of impact); and
- Informing behaviour (level of impact + degree of impact).

⁷⁶ The ADAPTE framework is a systematic approach to aid in the adaptation of guidelines produced in one setting to be used in a different context: www.adapte.org.

⁷⁷ Hanney et al. (2007). An assessment of the impact of the NHS health technology assessment programme, p. 171.

For each of the scales, the possible scores range from 0 to 5 with “5” having the most impact in the category and “0” the least. Not all indicators within a category were realistic given the scope of the HTA Program at IHE (i.e., for a score of 5 in “knowledge production” the HTA report must have received over 60,000 “hits” online). The degree of impact of an HTA report may also be reflective of the intended audience and the processes used in conducting a systematic review. For example, a systematic review done to inform provincial decision makers may incorporate detailed provincial health data which contextualizes the report to that jurisdiction making it highly relevant, but makes it of limited value to others both nationally and internationally. By contrast, a systematic review undertaken by a national HTA program may integrate only high level provincial data, for all age groups, making the report relevant for a broader audience. Therefore, while low scores were assigned for some categories, this may reflect an underestimation of impact in the context of the HTA Program. All sources of information were used in rating the case study and the scores attributed have been assigned by the Evaluator. A short description of the different categories and their scoring scales follows. Table 20 displays the results of this analysis.

Knowledge Production

This category looks at the number of HTA reports dispatched, the number of times an electronic version of the report was hit, the number and type of publications and the number of citations. Each case study had produced at least one report that was posted on the IHE website. In the case of both the Sexual Offenders Treatment (SOT) and the HPV reports, they had over 100 hits in two months from posting. Compared to other posted HTA reports, this represents a significant amount of interest. There are a number of products coming out from the Ambassador Program and all are available either on the IHE website or through specific clinical practice guideline databases.

Current funding agreements do place some restrictions on publishing though the HPV project does have one peer reviewed article and the SOT project has one in progress. The Ambassador Program has several publications to its credit written either by a member of the core team or others involved in the program including four articles in peer-reviewed journals and one chapter in each of two books.

Table 16(a): Scoring Scales for Knowledge Production

Score	Description
a) Knowledge production: HTA report	
5	Over 750 copies of the HTA report dispatched, the electronic version of the report was hit over 60,000 times, and been cited 75 times.
4	Over 500 copies of the HTA report dispatched, hits over 30,000, citations over 20.
3	Over 250 copies of the HTA report dispatched, hits over 20,000, citations over 15.
2	Over 100 copies of the HTA report dispatched, hits over 5000, citations over 5.
1	Over 50 copies of the HTA report dispatched, hits over 2000, 1 citation.
0	No HTA report.

Table 16(b): Scoring Scales for Knowledge Production

Score	Description
b) Knowledge production: publications	
5	The project produced at least eight publications, most of which were peer-reviewed articles, and appeared in forms that were likely to make an impact on the intended audience. At least one publication cited more than 50 times.
4	The project produced at least five peer-reviewed publications, including one that has been cited more than 25 times.
3	The project produced at least three peer-reviewed publications.
2	The project produced at least one peer-reviewed publication or one highly relevant for the target audience.
1	The project produced internal but no external publications.
0	The project produced no publications or internal report.

Research Benefits

This section explores the contribution a study makes to a research degree or capacity building in some other way. It also explores whether or not the study contributed to other studies coming out of the work.

All case studies made some contribution to research capacity in some way but were not the springboard for higher degrees such as PhDs/MDs. No further work is planned at this time related to the SOT project. The HPV project has generated requests from researchers in other provinces as to the generalizability of the economic analysis but no further work is planned. Each phase of the Ambassador Program has influenced the next and it is possible that the impact of the development of the CPG for low back pain is significant as it is a provincial guideline used in primary care, disseminated by provincial professional associations and has laid the foundation for the current development of the headache CPG.

Table 17(a): Scoring Scales for Research Benefits

Score	Description
a) Research Benefits: capacity building	
5	The project made a considerable contribution to at least two research/higher degrees, such as PhDs/MDs.
4	The project either made a considerable contribution to at least one research/higher degree, or a moderate contribution to at least two.
3	The project made a moderate contribution to at least one research degree.
2	The project made some contribution to at least one research degree.
1	The project made some contribution to research capacity building in some other way.
0	The project made no contribution to research degrees or research capacity building in any other way.

Table 17(a): Scoring Scales for Research Benefits

Score	Description
b) Scale for Research Benefits: research targeting	
5	The project made a considerable contribution to more than one follow-on project by the team and/or by others and the importance of these projects should be indicated by, for example, being of at least double the value of the original project.
4	The project made a contribution to more than one follow-on project, considerable in at least one case, and the importance of these projects should be indicated by, for example, being of at least the value of the original HTA project.
3	The project made a contribution to more than one follow-on project, moderate in at least one case.
2	The project made a moderate contribution to one follow-on project, or any contribution to more than one follow-on project.
1	The project made a contribution to at least one follow-on project.
0	The project made no contribution to targeting of future research.

Informing Policy Making

This category assumes all HTAs are done to inform policy at some level – internationally, nationally, locally – and that the project had various degrees of impact on the policy from “some identifiable” to “solely based on the project’s evidence”. Generally, all three case studies informed policy making to some degree. The scoring scales for this category are outlined in Tables 18(a) and 18(b).

The SOT project impacted policy at the provincial level. The report made a significant contribution to the strategies approved for province-wide implementation. The HPV project provided evidence to inform the decision and made an important contribution at a conceptual level to policy discussions but the forthcoming policy gave more weight to other considerations. In the Ambassador Program, all professional groups involved in the development of the CPG for low back pain posted the guideline on their respective web pages and have encouraged their members to implement the guideline in their practice. They do not have the ability to endorse a provincial policy but gave clear signals to their members that this guidelines reflected the Alberta context and was sound, unbiased evidence for practice.

Table 18(a): Scoring Scales for Informing Policy Making

Score	Description
a) Informing policy making: the nature of the policy	
5	The project made an impact on a substantial policy of an international body or substantial policies of at least two national governments.
4	The project made an impact on at least one policy from a national body.
3	The project made an impact on at least one policy from a provincial body.*
2	The project made an impact on the policy making of at least one local unit of the health service.
1	A claim for impact was made but no details given, or details given of a claim for expected future impacts.
0	The project made no impact on policies.

Table 18(a): Scoring Scales for Informing Policy Making

Score	Description
b) Scoring scale for Informing Policy making: degree of impact	
5	The policy was almost solely based on the project's evidence in a direct instrumental way.
4	The project made a considerable impact on the policy.
3	The project made a moderate impact on the policy in an instrumental way, or made an important contribution at a conceptual level to the policy discussions.
2	The project made some identifiable impact on the policy.
1	A claim for impact was made but no details given, or details given of a claim for expected future impacts.
0	No impact on policy making.

* In Hanney et al. (2007)'s scale for "Informing policy making: the nature of policy", a "3" corresponds with an impact on "at least one policy from a national professional body", and "4" corresponds with an impact on "at least one policy from a national policy-making body such as NICE". This scale reflects the health system organization and hierarchy in the United Kingdom. However, in Canada, the provincial level is a key site of policy and decision making for the health sector. To better capture policy impact in the Alberta context, the indicators for numbers "3" and "4" on this scale have been adjusted for this evaluation. A similar adjustment has been made to the scale for "Informing behaviour: the level of impact".

Informing Behaviour

This category looks at the level and degree of impact the project had with making an impact on behaviour in more than one country rating a “5” and no impact on behaviour being scored “0”. If the changed behaviour was almost solely based on the project’s evidence, as compared to no impact on behaviour, it again rated a higher score.

The SOT project scored highest in this area. As a result of the upcoming presentations at international events, it has the potential to impact in more than one country; it certainly has impacted behaviour at the provincial level. The HPV project has helped inform researchers in other provinces within Canada and has some identifiable impact on behaviour. The Ambassador Program has made an impact locally, provincially and, arguably, internationally due to the books on chronic pain that include the program as one of their chapters.

Table 19(a): Scoring Scales for Informing Behaviour

Score	Description
a) Informing Behaviour: the level of impact	
5	The project made an impact on behaviour in more than one country.
4	The project made an impact on behaviour at a provincial or national level.
3	The project made an impact on the behaviour of at least one team of practitioners or managers, or at least one group of patients/members of the wider public.
2	The project made an impact on behaviour of at least one or more practitioner, manager, patient or member of the public.
1	A claim for impact made but no details given, or details given of a claim for expected future impacts.
0	The project made no impact on behaviour.

Table 19(b): Scoring Scales for Informing Behaviour

Score	Description
b) Informing Behaviour: the degree of impact	
5	The changed behaviour was almost solely based on the project’s evidence in a direct instrumental way.
4	The project made a considerable impact on the behaviour.
3	The project made a moderate impact on the behaviour.
2	The project made some identifiable impact on the behaviour.
1	A claim for impact made but no details given, or details given of a claim for expected future impacts.
0	No impact on behaviour.

Table 20: HTA Case Study Impact Scoring Matrix

Scores are from 0 – 5 with “5” being the highest; scores were assigned by evaluator based on information provided from multiple sources

SCALE ⁷⁸	INDICATORS	CASE STUDIES		
		Sexual Offenders Treatment	Human Papillomavirus Testing (HPV)	Ambassador Program
Knowledge production: HTA report	<ul style="list-style-type: none"> HTA report produced # copies of report dispatched # hits on electronic version of report # citations of report 	<ul style="list-style-type: none"> 125 hard copies printed HTA report available online (posted Oct 19/10) 110 hits by Dec 31/10 Three citations 	<ul style="list-style-type: none"> 125 hard copies printed HTA report available online (posted Nov 4/10) 102 hits by Dec 31/10 One citation 	<ul style="list-style-type: none"> Program itself is not an HTA but individual components did result in full assessments and reports were prepared.
		Score = 2	Score = 2	Score = 2
Knowledge production: publications	<ul style="list-style-type: none"> # & type of publications produced by project (number peer-reviewed or other forms that are likely to make an impact on the intended audience) Internal publications only # citations of publications 	<ul style="list-style-type: none"> Report produced, deemed to be “highly relevant for the target audience” based on feedback from requester and recipients Manuscript (in process) 	<ul style="list-style-type: none"> Internal report produced One peer-reviewed article (Chuck A. [2010]. Cost-effectiveness of 21 alternative cervical cancer screening strategies. <i>Value in Health</i>, 13:2, 169-179.) 	<p>Peer-reviewed:</p> <ul style="list-style-type: none"> Evidence in Brief summaries (18) Evidence Informed Primary Care Management of Low Back Pain guideline Patient handouts (2) Chapter in Chronic Pain: A Health Policy Perspective Published articles (5) <p>External Publications</p> <ul style="list-style-type: none"> Gathering the Evidence Get Back at It (YouTube video) Effective Dissemination of Findings from Research – A Compilation of Essays (IHE report) <p>Chapter in <i>Systematic Reviews in Pain Research: Methodology Refined</i></p>
		Score = 2	Score = 2	Score = 4

⁷⁸ Scales and indicators from “Appendix 9: Scoring and re-scoring of case study projects,” in Hanney et al. 2007, pg 172-173

SCALE ⁷⁸	INDICATORS	CASE STUDIES		
		Sexual Offenders Treatment	Human Papillomavirus Testing (HPV)	Ambassador Program
Research benefits: capacity building	<ul style="list-style-type: none"> Contribution to research/higher degrees Other contribution to research capacity 	Some other contribution to capacity building: <ul style="list-style-type: none"> Key informant reports that the group of stakeholders was educated regarding HTA process and possibilities 	Some other contribution to capacity building: <ul style="list-style-type: none"> Helped establish lead economist as expert in this area 	Some other contribution to capacity building: <ul style="list-style-type: none"> Knowledge translation innovations Research methodology development Reportedly enhanced capacity of involved clinicians to engage with use of research in policy
		Score = 1	Score = 1	Score = 1
Research benefits: research targeting	<ul style="list-style-type: none"> Contribution to follow-up projects by team and/or by others Importance of follow up projects 	<ul style="list-style-type: none"> None to date 	<ul style="list-style-type: none"> Researchers in other provinces have inquired re: generalizability of findings Researcher reports impact via citations of peer-reviewed publication 	<ul style="list-style-type: none"> Funding awarded by national body to conduct impact research (CIHR 2008) Published commentary stated the program provided a model by developing a multidisciplinary CPG that integrates knowledge into collaborative practice for multiple health professions that was a logical and meaningful first step.
		Score = 0	Score = 1	Score = 2
Informing policy making: nature of the policy	<ul style="list-style-type: none"> Policy-making body impacted (international, national, provincial, local; policy-making body, professional body, health service organization) Expected future impact 	Impacted policy at provincial level: <ul style="list-style-type: none"> Task force convened and developed 15 recommendations for province-wide delivery of SOT programs Researchers asked to participate in joint panel on use of HTA in public safety decision making 	Informed policy discussions at provincial level: <ul style="list-style-type: none"> Policy recommendation was made at provincial level to adopt new technology 	Continues to inform provincial and national professional bodies: <ul style="list-style-type: none"> CPG for low back pain posted on TOP website, on national guideline clearinghouse and CMA website and supported by provincial health professional bodies
		Score = 3	Score = 2	Score = 3

SCALE ⁷⁸	INDICATORS	CASE STUDIES		
		Sexual Offenders Treatment	Human Papillomavirus Testing (HPV)	Ambassador Program
Informing policy making: degree of impact	<ul style="list-style-type: none"> Degree to which policy was based on project evidence (direct, considerable, moderate, identifiable; instrumental/conceptual impact) 	Considerable impact on policy : <ul style="list-style-type: none"> Recommendations based almost solely on the project's evidence (project findings were also verified by subsequently published research) 	Contribution at a conceptual level to policy discussions: <ul style="list-style-type: none"> Policy decision informed by this report but influenced by other overriding factors 	Some identifiable impact on policy: <ul style="list-style-type: none"> Bone & Joint Clinical network is reviewing work done around CPG for LBP for inclusion into their clinical pathway. Exploring ways to ensure appropriate use of diagnostic imaging in low back pain (Fall 2010)
		Score = 4	Score = 3	Score = 2
Informing behaviour: level of impact	<ul style="list-style-type: none"> Location of impact Number/scale of actors demonstrating behaviour change Expected future impact 	Potential impact in more than one country: <ul style="list-style-type: none"> Planned joint panel with Swedish colleagues to be presented at HTAi Conference 2011 in Brazil Impacted behaviour at provincial level: <ul style="list-style-type: none"> Informants report practice changes in SOT program at Alberta Hospital 	Impact on at least one team of practitioners: <ul style="list-style-type: none"> Subsequent policy decision made an impact on practice within health system regarding new testing technology 	Impact on at least one team of practitioners: <ul style="list-style-type: none"> Made impact on Calgary Health Region and the Pain Centre Impact on physician practice in Ontario Chronic Pain book presented to an international audience
		Score = 4	Score = 3	Score = 4
Informing behaviour: degree of impact	<ul style="list-style-type: none"> Degree to which behaviour change was based on project's evidence Expected future impact 	Considerable impact on behaviour: <ul style="list-style-type: none"> Report recipient reports practice changes as a direct result of research findings Further impact may occur in future, as report is very recent and additional presentations and publications are planned 	Some identifiable impact on behaviour: <ul style="list-style-type: none"> Decision to adopt new testing has implications for practice, but decision was not solely based on project findings 	Moderate impact on behaviour: <ul style="list-style-type: none"> Low back pain guideline supported by provincial health professional bodies via posting guideline on their websites, newsletters and promoting to clinicians; anecdotal evidence of change in clinical practice
		Score = 4	Score = 2	Score = 3
TOTAL SCORES (out of 40)		20	16	21

5.2.2. Factors associated with level of impact

In both the SOT project and the Ambassador Program there was a receptor body ready to use the findings although the circumstances vary. The issues addressed were of importance to the health system and the timing of the work undertaken to review the evidence was critical to their uptake. Contrary to this apparent timeliness, several parallel streams of discussion and change were occurring about the approach for HPV testing in Alberta and, ultimately, the decision was made to align all health services in the province with the changes that had already occurred in some sites.

All three studies demonstrated a high degree of interaction between clinical experts, researchers and decision makers and it was the iterative nature of these interactions and the willingness of all groups to engage, that resulted in a level of trust in the evidence provided. Several informants talked about the high quality, unbiased nature of the evidence presented and their degree of engagement with the process has positioned them as advocates for the evidence and the HTA Program overall.

Production of peer-reviewed articles has been limited in all cases but the online reports that are available, combined with active dissemination strategies, appear to be fruitful. The HTA Program has had inquiries from others at all levels for more information and the sense of researchers and other participants is that the work undertaken by the HTA Program will have an influence at both the individual and systems level. High impact groups such as the International Association for the Study of Pain have reported on the work done by the Ambassador Program through one of their books. It is not clear whether active dissemination is enough to result in high impact as defined by the payback model but the researchers certainly indicated they would welcome the ability and capacity to produce more manuscripts in peer-reviewed journals for their colleagues. The Ambassador Program is the only case study that has a formal dissemination strategy related to the CPG for low back pain but informants note that if innovative knowledge transfer strategies are to be explored, targeted resources (both people and funding) need to be allocated for a period of years.

There was dissatisfaction in the SOT and HPV projects with the timelines involved in doing the review which may have influenced their potential impact. While not all factors contributing to expanded timelines are under the control of the HTA Program, informants strongly stated that the comprehensiveness of any review is more important than rushing things. The Ambassador Program is not under the same constraints but has found the impact of their work is higher when the timing of their products is correlated with provincial activities underway. For example, the low back pain guideline was posted just prior to the merging of all health authorities in the province which gave a window in time for one approach for all health care providers. The willingness of those in the program to engage with others has positioned the Ambassador Program for contributing in a significant way to provincial standards in other clinical areas.

5.2.3. Assessing Impact

Staff expressed concern about the way in which impact of their work, including the case studies, would be measured. Only HTA reports contribute information to the INAHTA database on impact and that is done six months after a report is produced. Requestors otherwise are not routinely asked if the evidence provided contributed to decision making and staff indicated they would like to know if their work was 'helpful'.

Gathering information on the case studies gave richness to our understanding of what contributes to a successful project from both the researcher and the clinician viewpoints. According to all informants, relationship building was seen as critical, especially in terms of the amount of time that is required from clinicians to participate in the process. If the needs of all parties can be met then each is more likely to step up to the plate for the next time. This is particularly true for the Ambassador Program where world leaders involved in reviewing the evidence on pain management have gone from sceptics to vocal supporters for the benefit of HTA processes. In all cases, having senior people at the table has been critical to buy-in.

The case studies highlight the degree to which some HTA requests require new or improved methodologies that push the researchers to go beyond current approaches. While this is particularly true for the Ambassador Program, the other two case studies also had aspects that required a new lens on the questions posed and a willingness to validate the evidence found on the topic.

The multi-method approach adopted for the case studies facilitated the incorporation of data from various sources. Nevertheless, in general, the case studies were still insufficiently detailed to produce much evidence about the impact of the projects on clinicians' behaviour, let alone ultimate health outcomes. In some cases it may be too early to assess the full extent of impact as the reports have only been in the public domain for less than six months. In the case of the Ambassador Program, one formal study on impact of the CPG on low back pain has been externally funded by a national research body and is under way. If the indicators in the scales used in the Hanney et al. (2007) model are truly reflective of how impact of HTA programs should be measured, then work is required by the HTA Program to capture this information in a systematic manner.

5.3. Summary of Case Study Findings

Three case studies were undertaken with the aim of providing more detailed examples of impact, data on the factors associated with impact and comments on the way to best assess impact. The studies reviewed reflected those coming from very different requestors (government, provincial health providers, and other health providers) and the source of funding was either the grant in support of the provincial HTA service (SOT, Ambassador Program) or the AHTDP capacity building grant. All case studies aligned with core activities of the HTA Program and resulting products, for the most part, reflected examples from the HTA Program core product line. All studies were either initiated within the past five years or the bulk of activities were undertaken during this funding period. The final reports for two of the case studies are relatively recent which may result in underreporting of the impact. Finally the case studies reflected a range of perceived degree of success with some displaying more barriers to action and implementation than others.

The case studies reveal a large diversity in the levels and forms of impacts. Some of the case studies have impacted policy making while others have influenced informed clinical and operational decision making. Some have had impact at individual clinician behaviour level while others have changed practice of a whole provincial service in a relatively short time.

Broadly the case studies show the benefit of being "needs-led" where reviews were undertaken on issues of current importance to the health system and where receptor bodies were engaged and primed to see the evidence. The HPV project was an important topic and the resulting evidence was informative but, in the end, other factors had greater influence in determining policy.

Defined, targeted dissemination plans appear to be an important factor in uptake but require significant dedication of staff and resources (in-kind or otherwise). While producing reports that are publically available has been effective in increasing awareness on the evidence of a topic, additional efforts may be required if greater impact is to be achieved.

6. Summary and Conclusion

Alberta is one of three provincial jurisdictions in Canada that has HTA capacity at the provincial level. In addition to the HTA Program at IHE, there is capacity at the U of A (led by Dr. Devidas Menon) and at the U of C (led by Dr. Tom Noseworthy). These groups also do work for the Canadian Health Sciences Research Foundation (CHSRF), CADTH, and complete calls for proposals. Other groups, such as the Alberta Research Centre for Health Evidence (ARCHE)⁷⁹ do systematic reviews for multiple requesters using the Cochrane Collaboration methods. The Health Technology Assessment and Innovation Program at AHS is just evolving under the directorship of Dr. Don Juzwishin, former Director of the HTA Program at AHFMR/IHE.

The core function of HTA programs, generally, is to conduct HTAs. Some agencies may also have enhanced functions such as the role the HTA Program has taken towards bringing their evidence into practice through the development of clinical practice guidelines via the Ambassador Program. Only one other HTA agency in Canada has the responsibility to develop guidelines and that is INESSS⁸⁰ in Quebec (<http://inesss.qc.ca/>).

The summary and conclusions of this evaluation, based on data collected from interviews with staff and key stakeholders, program documentation and observation of processes are described below. They are organized according to the evaluation questions established for the review and documented in the evaluation data matrix (Appendix A).

Table 21: Summary of Findings by evaluation question

Evaluation Question	Summary and Observations
Were grant requirements and expectations met?	<ul style="list-style-type: none"> In both the AHTDP and HTA grant agreements leeway is provided to the HTA Program as to how objectives are met, making it difficult to assess if all grant expectations were fulfilled. Performance targets were implemented in 2008/09 but were not reflective of the decisions made by ACCHT in terms of the number and type of HTA requests given to the HTA Program and so subsequently were not reported. The program has never turned a project down. We did not review financial reporting processes and cannot speak to meeting the expectation of project-based budgeting and associated financial reporting system. Comprehensive, stand-alone Annual Reports on the products and services of the HTA Program at IHE are provided to AHW in a timely way. It may be worthwhile to make these publicly available as they are informative and

⁷⁹ <http://www.ualberta.ca/ARCHE/>

⁸⁰ Institut National d'Excellence en Sante et en Services Sociaux.

Evaluation Question	Summary and Observations
	<p>would help interested people and organizations better understand the scope of work undertaken.</p> <ul style="list-style-type: none"> ▪ The breadth and scope of activity in all areas is to be commended. The most significant activities include: <ul style="list-style-type: none"> ▪ The ongoing collaboration and activities as a result of the Ambassador Program and the commitment to bringing research evidence to the discussions. Informants associated with this initiative felt continued presence of this program is critical as it meets the needs of clinicians to increase their knowledge about best evidence in chronic pain management. The program may want to review some of its processes in light of emerging structures and capacities in Alberta. Informants feel that it is appropriate that the Ambassador Program, and the researchers on the team from the HTA Program, provide the evidence that contributes to guideline development but some suggest the program could reassess its role and collaboration approach in light of emerging provincial groups such as the clinical networks within AHS. ▪ The impetus for, and development of, the Decision Analytic Modeling Unit within IHE emerged out of the HTA work and has broadened the horizons for what HTA could address. ▪ The production of HTA reports are highly valued for their rigour and unbiased reporting of the evidence. ▪ The ability to leverage funding to enhance existing innovative approaches is an unintended and welcome consequence of the grants. ▪ The agreements were written within the context of the HTA program as the provincial focus for HTA activities in Alberta; however, over the last few years there has been a shift by AHW in response to concerns about capacity, to fund multiple partners including groups at the Universities of Alberta and Calgary. The HTA Program agreements do not reflect this shift and clarity around the agreements is required. Specifically, does AHW wish to continue to ask this program to be the provincial HTA Program to accomplish, at arm's length, activities that do not clearly fall into the purview of HTAs but require a full provincial perspective? It has been argued by some stakeholders, with its track record, critical mass of expertise and reputation, this program is best positioned to continue to advance HTA capacity and activity provincially. ▪ The majority of informants spoke to the (often) ineffective processes for conducting an HTA (including processes for groups such as: ACCHT, AHTDP, Expert Advisory Group, Project Committee) and the constraints on conducting a comprehensive assessment within short timelines. They noted the need to better understand the intricacies of reporting their work including the ethics of what can be presented. Many of the comments reflect on provincial rather than the HTA Program processes, and improvements in both areas will require provincial commitment and decisions around HTA processes and expectations.

Evaluation Question	Summary and Observations
How effective is the HTA Program's adaptation to the HTA service needs in the province?	<ul style="list-style-type: none"> ▪ The HTA team is composed of a largely consistent group of core staff who demonstrate efficiency and cohesiveness. Although some felt the capacity of the unit is limited by staff numbers, the team is perceived to be productive for its size. ▪ Increased health economics capacity was identified as a benefit of housing the HTA Program at IHE. ▪ Staff have the ability to self select projects based on expertise, availability and workload (for example, one of the researchers was previously a biochemical engineer and has done substantial work on devices). ▪ The HTA Program contributes to the vision of the IHE, operates within its accountability structure and aligns with many of its other functions. ▪ The Decision Analytic Modeling Unit could contribute their combined skills and experiences to help the health system address current issues through data mining of existing databases. This would require renegotiation of terms as currently they are only able to use data pulled for the intended purpose. It is likely that most of this work would fall under the Advanced Modeling Grant, which is distinct from the HTA grants, but mutual benefits would occur across and between individuals and organizations. ▪ Numerous examples of how the HTA Program is involved in networking through collaboration, communication or coordination activities are evident. External informants highlighted the positive collaborative processes that occur between requesters and the HTA Program but some note it could be improved by working with other HTA organizations to streamline processes and expedite the products more efficiently. ▪ Access to, and the right mix of, experts was identified as a tremendous benefit particularly when clinicians are involved in the HTA process. ▪ While well known nationally and internationally, efforts to increase local visibility of the HTA Program at IHE could be enhanced with the expected outcome of further collaboration and coordination within the province. Informants note that the HTA Program benefits from the profile of IHE, but also comment that improved "branding" of the HTA Program and its products could help increase awareness in the Alberta health care community. ▪ Activities to explore new methodologies and developing tools to assist decision makers in collaboration with others positively demonstrates the HTA Program's flexibility and competence in the face of rapid changes in the health sector and in the HTA field. ▪ The evolving nature of the HTA Program product line speaks to responding to the changing needs of the requester community. Respondents appreciated being able to access synthesized and full reports online or in hard copy based on their interest in the topic and need for data to make informed decisions.

Evaluation Question	Summary and Observations
	<ul style="list-style-type: none"> IHE responds to what is perceived as emerging issues in Alberta via Consensus Conferences, Innovation Forums and Methodology Forums. The ability of the HTA Program to contribute to these events is seen as positive and reflective of addressing the changing needs. The HTA Program's innovations in the area of best practice and methodological development are perceived by key informants as positive contributions to the field of HTA. The Program demonstrates a strong culture of organizational learning through its commitment to lifelong learning, program evaluation and continuous improvement. Many stakeholders talked about the credibility of the HTA Program with specific reference to the skill set of the researchers and the rigorous standards of methodology. The IHE as an organization is also highly visible and credible which creates a "win-win" situation.
To what extent does the HTA Program maintain a positive culture and alignment to generally accepted principles and values for HTA agencies?	<ul style="list-style-type: none"> Overall, external respondents stated that the HTA Program and its staff are aligned with key values and principles accepted for HTA agencies. Adherence to the principle of accuracy was rated the highest; One hundred percent of respondents (ten out of ten) "strongly agree" that the information presented by the HTA Program is of high scientific rigour. The program's maintenance of objectivity, truthfulness and transparency were also highly rated. Without exception, staff report strong internal teamwork that results in a willingness of members to do what it takes to get a job done. The positive culture is evident in the stable staff tenure. A number of staff recall coming to the HTA Program viewing it as a skill development opportunity but have stayed because of the culture and values within the organization and the program itself.
How productive is the HTA Program? What HTA products and services have been completed/conducted from the time of program transition to IHE?	<ul style="list-style-type: none"> The HTA Program maintains a core product line designed to meet the needs of receptor audiences including full HTA reports, rapid assessments, information papers, STEp reports and comparative effectiveness reports. Since 2006 the HTA Program has produced (or contributed to) an impressive 154 publications of all kinds, the most significant of which include: four books; 14 HTA reports; eight STEp reports; nine information papers; 22 external publications; and 22 publications for the Ambassador Program. The Ambassador Program lead the development for the creation of one provincial clinical practice guideline for the management of low back pain by primary care providers. An unexpected outcome was the emergence of a large database of systematic reviews and guidelines related to low back pain that is updated on an as-needed basis. A similar database is being created for headaches. These may be of future interest to clinical networks and other groups.

Evaluation Question	Summary and Observations
	<ul style="list-style-type: none"> ▪ The quality of the reports and the processes involved in their development has helped legitimize the value of HTA for many stakeholders. ▪ External respondents generally perceive HTA Program products to be of high quality. All informants “strongly agreed” that the reports provided by HTA Program are of high scientific rigour. One hundred percent of those respondents who had used at least one HTA Program product rated readability, relevance, content, format, appropriateness and practicality as either “good” or “excellent”. ▪ Program staff felt there were areas for improvement in production processes, including better question definition upfront, enhanced data access, review of timelines to conduct comprehensive reviews and ways by which the expert advisory group structure and collaboration could be improved. The dual demands of producing timely feedback for decision makers and maintaining methodological rigour and quality can be difficult to negotiate for researchers and requesters alike.
What reach (i.e., distribution) has been achieved for HTA products and services?	<ul style="list-style-type: none"> ▪ In recent years there has been a shift from distribution of hard copies of reports, to posting on website for online availability. HTA Program reports available through the IHE website received a total of 2,823 “hits” in 2010. Some 2010 reports received over 100 “hits” within their first two months online. ▪ Since 2006, HTA Program staff have delivered 72 presentations at conferences, workshops and meetings at local, national and international levels to audiences of researchers, practitioners, policy decision makers, and others. ▪ The HTA Program actively contributes to the evolution of knowledge transfer in the province especially through innovative KT strategies associated with the Ambassador Program. ▪ Case study evidence suggests that defined, targeted dissemination plans may be an important factor in uptake but require significant dedication of staff and resources (in-kind or otherwise). ▪ Several staff felt more could be done in terms of publishing results (particularly of systematic reviews conducted as part of an HTA) in peer-reviewed journals. They are frustrated in either their inability to publish (in terms of restrictions) or lack of time available to do so to the degree they would like. Some feel writing manuscripts would improve uptake of findings particularly for other provinces and countries which may use the information for their own context.
What impacts are evident to date?	<ul style="list-style-type: none"> ▪ Overall, key informants report high levels of awareness of and satisfaction with HTA Program products. ▪ The majority of HTA and STEp reports produced over the last five years have already been, or are expected to be, used in policy and decision making at regional and provincial levels.

Evaluation Question	Summary and Observations
	<ul style="list-style-type: none"> ▪ Five reports informed decisions regarding funding and implementation of certain technologies: three decisions approved new screening technologies; one decision was made not to fund a new treatment; and one decision is currently pending. ▪ The STEp report <i>HPV Testing in Alberta</i> informed the question of whether to adopt the technologies under review although ultimately the policy decision was impacted by a number of other factors as well. ▪ A smaller number of HTA and STEp reports have or are expected to influence changes in practice. <ul style="list-style-type: none"> ▪ The 2010 HTA report <i>Treatment for Convicted Adult Male Sex Offenders</i> has reportedly already resulted in changes in admission practices and focus in an Alberta sex offender therapy (SOT) program. Additionally, the report informed the recommendations of the Provincial Forensic Mental Health Management Committee regarding key elements of best practice in SOT. ▪ The CPG on low back pain produced by the Ambassador Program has been endorsed and disseminated by at least two professional bodies, and anecdotal evidence indicates it is already being integrated into practice by some clinicians. ▪ Timeliness, availability of evidence and relevance are most frequently cited as key factors in facilitating or hindering utilization of HTA Program research. The case studies show the benefit of being “needs-led” where reviews were undertaken on issues of current importance to the health system and where receptor bodies were engaged and primed to see the evidence. ▪ Suggestions for further facilitating the utilization of HTA program research in policy-making and in practice include: <ul style="list-style-type: none"> ▪ Improve collaboration and communication with requesters and other stakeholders; ▪ Work to increase awareness of IHE and the work of the HTA Program; and ▪ Dedicate resources to producing further publications, especially peer-reviewed, from HTA Program research. ▪ The work of the HTA Program builds capacity in the HTA field through innovative methodology development, engagement with diverse local and international networks, skill building and knowledge transfer activities. ▪ It can be difficult for researchers and staff to trace the impact of their completed products. Many factors influence policy and decision-making, and the absence of a clear policy decision in accordance with the findings of HTA research does not negate the important function of reports in providing best available evidence to inform decision-makers.

In conclusion, the HTA Program has successfully transitioned from AHFMR, consolidating the HTA expertise of the HTA Unit with the HTA and health economics expertise within IHE, facilitating the production of integrated HTAs with broadened scope. The HTA Program capacity has continued to evolve through its unique collaboration with the University of Alberta which seconded information specialists (who have highly honed skills related to searching the literature) and other academics who contribute to HTA assessments. The resulting programs and services deliver on the expected objectives particularly around those of meeting the needs of the Alberta health community.

The IHE is perceived to be a leader in its field with a solid reputation in local and international HTA communities. The HTA Program is seen as highly credible and reflective of strongly held HTA principles and values. Program staff and leadership demonstrate strong commitment to maintaining “gold standard” methodological practices with an emphasis on scientific rigour and high quality products. Stakeholders are generally satisfied with the program and what it has accomplished to date but recognize the fast pace of technology will require the HTA Program to be nimble on its feet so it can respond to the increasing complexity of the questions that need answering.

Key informants identified a number of challenges related to the overall provincial process (AHTDP) and environment and not directly under the control of the HTA Program, including: a change in the relationship between the HTA Program and AHW resulting in (often) ineffective stages in the HTA process; changes engendered by the creation of AHS; the implementation of a new research strategy; the distributed nature of HTA production in the province; and the current politics of health and research. Some external informants were not aware of the overall processes for HTAs in the province and attributed delays in the process for decision making to the HTA Program.

As the HTA Program approaches the end of its five year grant agreement, some important issues and opportunities facing the program are:

- A need for a clear strategic program agenda that will meet the needs of the funder while at the same time contributing to the mission, vision and strategic directions of its home organization.
- The Ambassador Program is a resource intensive program due to the magnitude of work undertaken and commitment to ongoing updates. Consideration should be given to housing the program as an enhanced function and resourcing it appropriately as a service provided on behalf of the health care system.
- KT strategies can be expensive and one informant suggested five percent of the budget be allocated to dissemination.
- There may be a need to do translational research where the HTA Program works with universities around what technology is emerging versus reacting to what is developed and on the market. Some feel if you wait until a technology comes to market then it is too late and often you will be trying to stop a practice that has already started.
- IHE needs to increase awareness and visibility, especially within Alberta, regarding itself and its HTA related products and services. One suggestion was improving the “branding” of the HTA Program specifically, so that it remains identifiable to stakeholders regardless of where it is housed.
- Capacity building activities could be further strengthened and developed as a core element of the HTA Program’s services. The lack of individuals trained in technology assessment and health system evaluation overall is an issue in the province despite having multiple groups that can do

assessments. The HTA Program could contribute significantly to increasing capacity by re-introducing some version of the Professional Skills Development Program.

- There is a need for improved processes and systems for tracing the impact of HTA Program products.

The HTA Program is encouraged to continue to work collaboratively and strengthen linkages with the range of enthusiastic partners and stakeholders that have been drawn to the program and who look forward to continuing to share in its success. As one informant said: “energy, enthusiasm and commitment is coming from the HTA Unit right now.”

Appendix A: Data Matrix

Data Matrix

Purpose:

- Demonstrate accountability for HTA related grant dollars received from Alberta Health and Wellness,
- Identify areas of strength, gaps and challenges for the HTA program, and
- Propose recommendations for enhancements to the program.

EVALUATION QUESTIONS	INDICATORS / MEASURES	DATA SOURCES AND COLLECTION METHODS							
		Doc Review (including previous evals)	Internal Interv & focus group	Other Interv	Written survey	IHE researcher survey (by project)	Case study		
							IHE researcher survey ++	Other interv	IHE reports
● How effective is the HTA Program’s adaptation to the HTA service needs in the province?									
1.1 What is the internal structure capacity of the HTA program (human, technological, financial)?	➤ Description	X							
1.2 How adequate are the program’s internal structure and capacities?	➤ Perception of adequacy of internal structure and capacity		X						
a. How adequate are the human, technical and financial resources in relation to the expectations of the grant agreement?									
b. How effective are governance/accountability structures and processes?	➤ Perception of effectiveness of operational structures and processes	X	X	X	X			X	
c. How effective are operational structures and processes?									
1.3 What is the quality of external support to and relations with the HTA program?	➤ Description	X							
a. How effectively does the program engage and network with partners? (provincially, nationally & internationally)	➤ Perception of partner engagement and networking (what works well, what doesn’t?)		X	X	X				

EVALUATION QUESTIONS		INDICATORS / MEASURES		DATA SOURCES AND COLLECTION METHODS							
				Doc Review (including previous evals)	Internal Interv & focus group	Other Interv	Written survey	IHE researcher survey (by project)	Case study		
									IHE researcher survey ++	Other interv	IHE reports
<div>b. What is the level of visibility and awareness of the HTA program? (amongst AB HC communities)</div> <div>c. How credible is the HTA program? (amongst its partners, the AB HC community and HTA communities nationally and internationally)</div>											
<div>1.4 How responsive is the HTA program?</div> <div>a. To the needs of the product/service requester?</div> <div>b. How adaptive is the program to the changes in the HTA environment?</div> <div>1.5 What is the innovation and learning capacity of the HTA program?</div> <div>a. To what extent does the HTA program develop new processes or activities to adapt to the changing needs of its environment?</div> <div>b. How does the program build and organize knowledge and human resources to pursue goals?</div> <div>c. To what extent does the program learn from experiences in a systematic manner?</div>		<div>➤ Perception of responsiveness</div> <div>➤ Description of innovation and learning processes</div> <div>➤ Perception of program innovation and learning</div>		X	X	X	X				
<div>● To what extent does the HTA Program maintain a positive culture and alignment to generally accepted HTA principles/values?</div>											
<div>2.1 To what extent does the HTA program uphold generally accepted principles/values for HTA agencies?</div> <div>a. How accountable is the program?</div> <div>b. How transparent, open and truthful is the program?</div> <div>c. To what extent is information presented by the program accurate(of high scientific rigour)?</div>		<div>➤ Description of values, degree of consensus</div> <div>➤ Perception of adherence to principles/values (quantitatively scaled)</div>		X	X	X	X				

EVALUATION QUESTIONS		INDICATORS / MEASURES		DATA SOURCES AND COLLECTION METHODS							
				Doc Review (including previous evals)	Internal Interv & focus group	Other Interv	Written survey	IHE researcher survey (by project)	Case study		
									IHE researcher survey ++	Other interv	IHE reports
d. To what extent do the program and its staff demonstrate objectivity?											
e. To what extent does the program foster coordination and collaboration?											
f. To what extent does the program foster an environment of mutual respect and inclusiveness?											
2.2 What is the organizational climate for the HTA program?		➤ Description of organizational climate		X							
a. What is the quality of leadership in the HTA program?		➤ Perceptions of organizational climate			X						
b. What is the quality of communications in the HTA program?											
c. What is the quality of teamwork in the HTA program?											
d. What recommendations are offered regarding HTA program processes, capacity, values and organizational culture?		➤ Suggestions/recommendations re: any indicators under Program Adaptation or Culture/Values sections			X	X	X			X	
3. How productive is the HTA Program? What HTA products and services have been completed/conducted from the time of program transition to IHE?											
3.1 How productive is the HTA program at IHE?		➤ # documents produced by type since 2006		X							
a. What types of documents are produced?		➤ # presentations and other events delivered by type and project since 2006		X				X			
b. How many documents are produced?											
c. How many services (including presentations and events) are delivered?											

EVALUATION QUESTIONS		INDICATORS / MEASURES		DATA SOURCES AND COLLECTION METHODS							
				Doc Review (including previous evals)	Internal Interv & focus group	Other Interv	Written survey	IHE researcher survey (by project)	Case study		
									IHE researcher survey ++	Other interv	IHE reports
3.2	What is the perceived quality of HTA products?	➤	Perception of product quality		X	X	X		X	X	
	a. How readable are HTA documents?										
	b. How timely are HTA products?										
	c. How accurate are HTA products?										
	d. How appropriate are HTA products and services?										
	e. How relevant are HTA products and services?										
	f. What is the overall quality of HTA products and services?										
	g. What recommendations are offered regarding quality of HTA products and services?	➤	Suggestions/recommendations re: quality of HTA products and services		X	X	X		X	X	
4. What reach (i.e., distribution) has been achieved for HTA products and services?											
4.1	What is the extent of primary distribution of HTA program products (push)?	➤	# of publications (specific to HTA program)	X					X		X
		➤	# of contributions to publications (IHE and others)						X		
4.2	What is the extent of secondary distribution (pull)?	➤	# file downloads/hits on both IHE and other websites in a time period (by product)								X
		➤	# other web sites that host HTA products (and list websites)								
		➤	# instances that products are indexed or archived in bibliographic databases								
4.3	What is the extent of requests for HTA program products and services?	➤	# direct requests for products or presentations						X		X

EVALUATION QUESTIONS		INDICATORS / MEASURES	DATA SOURCES AND COLLECTION METHODS							
			Doc Review (including previous evals)	Internal Interv & focus group	Other Interv	Written survey	IHE researcher survey (by project)	Case study		
								IHE researcher survey ++	Other interv	IHE reports
5. What impacts are evident to date?										
5.1 What is the level of awareness and satisfaction with products and services of the program? a. Among the AB HC community, how aware are potential users of relevant HTA products & services? b. How satisfied are recipients of HTA products and services?		➤ Perception of awareness, satisfaction	X	X	X	X			X	
5.2 To what extent are products and services perceived to be useful ?		➤ Perception of product usefulness (by product)			X	X			X	
5.3 To what extent have HTA products and services resulted in increased knowledge and understanding of topic areas contained in program products and services?		➤ Perception of changes in knowledge and understanding	X		X	X			X	
5.4 To what extent have products been utilized ? a. How have HTA reports been utilized? b. What are the factors influencing utilization of HTA products?		➤ Description/examples of use of HTA products and services, or information contained therein		X	X		X	X	X	
5.5 To what extent have HTA products or services resulted in changes to policy or practice ? a. To what extent have HTA recommendations/guidelines/information been approved/adopted by policy makers and practitioners? b. To what extent have HTA products and services contributed to changes in government and/or health authority policy? c. To what extent have HTA products and services contributed to changes in practice?		➤ Descriptions/examples of practice and policy change (by product) ➤ Expectation of future changes to practice/policy (by product) ➤ # of HTA recommendations adopted / implemented ➤ Perception of barriers to adoption/utilization ➤ Suggestions/recommendations re: facilitating/increasing adoption of HTA recommendations/guidelines/	X X				X X X	X X X	X X X	

EVALUATION QUESTIONS	INDICATORS / MEASURES	DATA SOURCES AND COLLECTION METHODS							
		Doc Review (including previous evals)	Internal Interv & focus group	Other Interv	Written survey	IHE researcher survey (by project)	Case study		
							IHE researcher survey ++	Other interv	IHE reports
d. <i>What have been the barriers to adoption?</i> e. <i>What recommendations are offered related to adoption?</i>	information								
5.6 <i>Have HTA program products and services had an impact on or strengthened research?</i> a. <i>To what extent has the HTA program or research resulted in further research including primary research?</i> b. <i>To what extent has the HTA program or research resulted in strengthening HTA or research capacity in the province?</i> 5.7 <i>Has the HTA Program leveraged grant dollars and partnerships to achieve a greater than intended influence?</i>	➤ # of achieved/predicted additional formal qualifications for members of project team as result of participation in research ➤ researchers reporting generation of subsequent research ➤ Total \$ value of further grants/funding secured based on contributions of original project ➤ # publications resulting from supplementary research products ➤ additional dollars obtained through grant funding		X			X X X X	X X X		

Appendix B: Key Informants

Key Informants, Evaluation Stages 1 & 2

Name	Affiliation	Stage
Internal IHE		
Bergerman, Lisa	Institute of Health Economics	2
Bond, Ken	Institute of Health Economics	2
Chojecki, Dagmara	Institute of Health Economics	2
Chuck, Anderson	Institute of Health Economics	1 & 2
Corabian, Paula	Institute of Health Economics	2
Dennett, Liz	Institute of Health Economics	2
Guo, Bing	Institute of Health Economics	2
Harstall, Christel	Institute of Health Economics	1 & 2
Jacobs, Phillip	Institute of Health Economics	1
Jonsson, Egon	Institute of Health Economics	1
McIndoo, Wendy	Institute of Health Economics	2
Moga, Carmen	Institute of Health Economics	2
Nguyen, Thanh	Institute of Health Economics	2
Ohinmaa, Arto	Institute of Health Economics	2
Ospina, Maria	Institute of Health Economics	2
Scott, Anne	Institute of Health Economics	2
Sproule, John	Institute of Health Economics	1
Yan, Charles	Institute of Health Economics	2
National and International		
Cameron, Alun	Australian Safety and Efficacy Register of New Interventional Procedures – Surgical, Royal Australian College of Surgeons	2
Clifford, Tammy	CADTH	1
Dery, Veronique	Agence d'évaluation des technologies et des modes d'intervention en santé (Quebec)	1 & 2
Drummond, Michael	York University (UK)	1
Facey, Karen	Consultant specializing in HTA (UK)	1
Hayward, Sarah	Search Canada (now disbanded) Ontario Ministry of Health (Ontario Health Technology Advisory Committee)	1
Hodnett, Ellen	University of Toronto	2
Husereau, Don	CADTH	2

Name	Affiliation	Stage
Iglesia, Iñaki Imaz	Spanish Agency for Health Technology Assistant	2
Levin, Leslie	Ontario Ministry of Health (Ontario Health Technology Advisory Committee)	1
Petersen, Oksana	INAHTA/SBU- The Swedish Council for Technology Assessment in Health Care	2
Alberta		
Angus, Donna	Alberta Innovates – Health Solutions	2
Berezanski, Joan & Perry, Dough	Alberta Health and Wellness	1 & 2
Connolly, Susan	Alberta Health Services	2
Dyck, Ron	Alberta Advanced Education and Technology	1
Friend, Will	Alberta Health Services	2
Frick, Corine	Alberta Health Services (formerly)	2
Hofer, Tammy	Alberta Health Services	2
Howard, Ray	Alberta Health and Wellness	2
Juzwishin, Don	Alberta Health Services	1
Magnan, Jacques	AHFMR/Alberta Innovates- Health Solutions	1
Menon, Dev	University of Alberta	1
Shledon, Bob	Alberta Health Services	1
Stitch, Doug	Towards Optimized Practice (TOP) Program	2
Spanswick, Chris	Calgary Pain Program, Alberta Health Services	2
Taenzer, Paul	Calgary Pain Program, Alberta Health Services	2
Wright, Janet	College of Physicians and Surgeons of Alberta	2

Appendix C: Documents Reviewed

Documents Reviewed

Health Technology Assessment Unit; Report of Activities for 2005 – 2006 (AHFMR)

Health Technology Assessment Unit: Report of Activities for 2006 – 2007

HTA Program and AHTDP Initiatives Annual Report 2007 - 2008

HTA Program and AHTDP Initiatives Annual Report 2008 - 2009

HTA Program and AHTDP Initiatives Annual Report 2009 - 2010

Health Technology Assessment: Internal Policies & Procedures Manual (June 2009)

Consumer Involvement in Health Technology Assessment: Hailey D (Dec 2005)

Ambassador Program: Process Evaluation: Sumera Management Consulting (2009)

A Study of the Impact of 2001- 2002 HTA Products: TurnKey Management Consulting (2002)

A Study of the Impact of 2001 – 2002 Health Technology Assessment Products: Final Report: Howard Research (2003)

Review of Alberta HTA Unit (Version 1.0): Facey K (2003)

Review of Health Technology Assessment Products 2003 – 2004 (AHFMR): Hailey D (2005)

Evaluation of the Alberta Health Technologies Assessment (HTA) Ambassador Program: Barrington Research Group (2005)

Alberta Health Technologies Decision Process Forum: AHW (September 11, 2009)

Report on the Workshop on Information Resources for Social and Demographic Sections of the Alberta Health Technologies Decision Process (AHTDP) STE Reports: Dennett L (2010)

Key Informant Consultation Findings (Phase 1): Charis Management Consulting Inc (2010)

Health Technology Assessment in Alberta: A Strategic Plan: AHW, IHE (2007)

IHE Summary Report on Outcomes and Activities 2007 – 2008: IHE (2009)

The Alberta HTA Ambassador Program: A Pilot Program to Increase HTA Knowledge Transfer Activities in Alberta: Taenzer P (2005)

Appendix D: Question Matrix

Data Sources for Items related to HTA Program Overall

INTERVIEW QUESTIONS		KEY INFORMANTS						
		Case Study (internal)	Case study (external)	Phase 1	Focus Group (staff)	Focus Group (econ)	External Overall Survey	External Overall Interview
Roles								
1. How do you know about the HTA Program at IHE? a. I am a requester of HTA products/services b. I have provided methodological expertise c. I represent another HTA organization d. I am an external reviewer for an HTA product. e. I am a recipient of HTA products f. I am a user of HTA products g. Other (please specify)							X	X
2. Have you been involved in a specific project with the HTA Program? If yes, what was your role?							X	X
3. What was/is your role(s)		X	X		X	X	X	
HTA Context								
4. What are emerging trends and innovative strategies in HTA (including health economics) that you think could or should be considered in Alberta?				X				
5. Which agencies or organizations are considered to be world leaders, i.e., set the gold standard for HTA/health economics? Why? a. In the production of technology assessment and economic analyses? b. In knowledge transfer and dissemination? c. In linking HTA/economics analysis to policy, funding, and clinical decision-making?				X				
Overall								
6. Comments on the HTA Program project overall: a. What worked well? b. What challenges were encountered and how were these addressed? c. What could/should have been done differently, if anything?					X	X		
Networking Collaboration and Engagement								
7. On a scale of 1-4, how do you rate the following: a. Awareness of the IHE HTA Program amongst: its partners; the Alberta Health Care Community; HTA community nationally; HTA community internationally? b. The HTA Program's networking with: Alberta partners; national partners; international partners?							X	

INTERVIEW QUESTIONS		KEY INFORMANTS						
		Case Study (internal)	Case study (external)	Phase 1	Focus Group (staff)	Focus Group (econ)	External Overall Survey	External Overall Interview
	c. The HTA Program's collaboration with: Alberta partners; national partners; international partners? d. The responsiveness of the HTA program to the needs of requesters? e. The adaptability of the HTA Program to changes in the HTA environment? f. Overall satisfaction of HTA product recipients?							
8.	Thinking about collaboration with external partners: a. What works well? b. What issues or challenges have you experienced? c. In general, do you have any suggestions for improvement in relation to how the HTA Program collaborates with project partners overall?				X	X		X
9.	What opportunities and strategic directions should IHE consider to strengthen its role and that of its HTA and related services within Alberta and its health care system? Within Canada and internationally? New areas:			X				
10.	How should IHE align its role, strategic directions, programs and/or services in relation to its stakeholders (e.g. Alberta Health Services) and other agencies (including nationally (CADTH) and internationally).			X				
Operational								
11.	Thinking about the effectiveness of the HTA Program's operational structures and processes: In your opinion, a. What works well? b. Are there any barriers, issues or challenges? c. Do the qualifications, experience and number of members of the HTA Project team(s) align with the question(s) to be answered? d. How collaborative did you find the HTA Program at IHE to be with: i. Project Expert Advisory Group ii. Other researchers iii. Other partners e. How responsive do you find the HTA Program to be generally? f. Do you have any suggestions for improvement?	X	X					X
12.	Staff within the HTA Program contributes to some degree to defining the question(s) to be answered. a. What is working well? b. What issues or challenges have you experienced? c. What suggestions do you have for improvement? d. Do you as economists play a role in this process	X			X	X		

INTERVIEW QUESTIONS	KEY INFORMANTS						
	Case Study (internal)	Case study (external)	Phase 1	Focus Group (staff)	Focus Group (econ)	External Overall Survey	External Overall Interview
Governance							
13. I'd like you to think about the HTA program's overall governance/accountability structures and processes. a. What worked/works well? b. Have you identified any challenges, issues or barriers? c. Do you have any suggestions for improvement?	X	X		X	X		X
Principles and Values							
14. Rate the HTA Program's: accountability, transparency, truthfulness, independence, objectivity, accuracy, inclusiveness, respect. a. Why do you give this rating? b. Any suggestions for improvement?		X				X	
Reports							
15. Considering the current HTA products and services, which of these should be substantially strengthened? How? a. Are there any current HTA offerings (programs/services) that could or should be sacrificed or scaled back in favour of new opportunities or stakeholder needs?			X				
16. On a scale of 1 – 10 how would you rate the quality of HTA products and reports overall? a. Do you have any suggestions for improvement?		X				X	
17. Thinking about the reports coming out of this project: a. Did the HTA report meet the expectations of the original requester? b. What worked well? c. What issues were encountered? d. What impact, if any, did this HTA report have on changes to policy? e. What impact, if any, did this HTA report have on changes to practice? f. In general, do you have any suggestions for improving HTA reports?	X						
Impact							
18. For each category of HTA products: a. Are you aware of the product? b. Have you used the product? c. Rate the product's usefulness.		X				X	
19. Regarding the HTA products you are aware of or have used: a. Did the product(s) result in changes in your knowledge and understanding of the topic b. If you have used HTA product(s), how did you use it/them and to what							X

INTERVIEW QUESTIONS	KEY INFORMANTS						
	Case Study (internal)	Case study (external)	Phase 1	Focus Group (staff)	Focus Group (econ)	External Overall Survey	External Overall Interview
end? c. What factors facilitate/encourage use of HTA products? d. Were there any barriers to using the product(s)? e. Do you have any suggestions for improvement?							
20. Thinking about the impact HTA reports: a. What works well? b. What issues or challenges have you experienced? c. In general, what steps, if any, could the HTA Program take to enhance impact of reports in the short term? Longer terms?		X		X	X		
Capacity for Learning							
21. Thinking about the HTA Program's capacity for learning and innovation as a program: a. To what extent does the HTA Program develop new processes or activities to adapt to changing HTA needs? b. To what extent does the program learn from experiences in a systematic manner?							X
Overall (2)							
22. The vision of IHE is "to be an international centre of excellences for health economics, health outcomes, and health policy research, and be recognized nationally and internationally for our contributions towards the efficient and effective use of health care resources." a. In your opinion, how does the HTA Program contribute to achieving this vision? b. Can you identify any challenges, issues or barriers? c. In general, do you have any suggestions for improvement?				X	X		
23. Overall, looking back: d. What have been the greatest lessons learned? e. What are your 2 – 3 priority recommendations for what could or should have been done differently?	X	X		X	X		
24. Looking forward: f. Currently what are the greatest issues or challenges facing the HTA (or Ambassador) Program? g. What recommendations do you offer to address these challenges?	X	X	X	X	X		
Final Comments							
25. Do you have any further comments?	X	X	X	X	X	X	X

Appendix E: Focus Group Questions

IHE Staff Focus Group Questions

Introduction

- Ask if they are aware of the evaluation. If they indicate no or minimal, provide a brief synopsis.
- Highlight that the focus of the evaluation is on “processes” and “impact”. We will also be addressing accountability (is the program fulfilling the requirements of the agreements in place?). We have a core series of questions and this complements our other data collection including interviews, written survey, document review, etc.
- Obtain permission to record the interview/focus group. The tape file will be held confidential – to be used by evaluators as backup to their notes.
- **We will not send the comments back for validation as we want you to speak openly.**
- Are there any questions before we get started?

Focus Group

1. Comment on the HTA Program overall.
 - a. What is working well?
 - b. What challenges have been encountered and how have these been addressed?
 - i. Have there been any unexpected challenges, activities or outcomes?
 - c. What have been the greatest lessons learned to date?
 - d. What could/should have been done differently, if anything?
2. Think about current program governance and accountability structures:
 - a. What is working well?
 - b. What issues or challenges have you experienced?
 - c. What suggestions do you have for improvement?
3. Staff within the HTA Program contributes to some degree to defining the question(s) to be answered.
 - a. What is working well?
 - b. What issues or challenges have you experienced?
 - c. What suggestions do you have for improvement?
4. Thinking about collaboration with external partners....
 - a. What works well?
 - b. What issues or challenges have you experienced?
 - c. In general, do you have any suggestions for improvement in relation to how the HTA Program collaborates with project partners overall?

5. HTA reports can impact decision-making at many levels and in many ways. Thinking about the impact HTA reports:
 - a. What works well?
 - b. What issues or challenges have you experienced?
 - c. In general what steps, if any, could the HTA Program take to enhance impact of reports in the short term? Longer term?
6. The vision of IHE is *“to be an international centre for excellence for health economics, health outcomes, and health policy research, and be recognized nationally and internationally for our contributions towards the efficient and effective use of health care resources.”*
 - a. In your opinion, how does the HTA Program contribute to achieving this vision? What works well?
 - b. Can you identify any challenges, issues or barriers?
 - c. In general, do you have any suggestions for improvement?
7. Overall, looking back:
 - a. What have been the greatest lessons learned?
 - b. Looking back, what are your 2-3 priority recommendations for what could or should have been done differently?
8. Looking forward:
 - a. Currently what are the greatest issues or challenges facing the HTA Program?
 - b. What recommendations do you offer to address these challenges?
9. Do you have any further comments on this project, the processes or products produced or the HTA Program at IHE overall?

This concludes our focus group. Thank you for sharing your thoughts and experiences with me.

Appendix F: Written Survey (Alberta version)

Survey of External Perspectives on the HTA Program

Charis Management Consulting Inc. has been contracted to conduct a process and impact evaluation of the Health Technology Assessment Program at the Institute of Health Economics. The evaluation will utilize a variety of approaches including impact and utilization assessments of individual HTA Program projects, evaluation of overall process and accountability, and case studies of key projects.

You have been identified as a key informant based on your past or ongoing interactions with the HTA Program at IHE. You are being asked to complete and return this survey according to the instructions below. Completion should take about **10 minutes** of your time.

Charis researchers will keep your responses to opinion questions confidential. Results will be compiled and reported in a summary format.

If you have any questions about this survey, please contact **Beth Hayward** of Charis Management Consulting Inc. at **(780) 496-9067, ext. 233** or by email at beth@charismc.com.

Your completion of the survey will indicate your consent to participate in the evaluation.

You have two options for completing this survey: **hardcopy or electronically**. If you prefer hardcopy, please print out the survey, complete it, and fax it to Charis Management Consulting Inc., attention Beth Hayward, at **(780) 408-3229**.

Instructions for electronic completion of the survey are as follows:

- Click on the tab or the arrow keys of your keyboard to move between questions or response fields.
- Left click on the check box to enter your response.
- Enter only one response per question unless otherwise directed.
- Enter text responses by clicking on the text box. The box will expand as you type.
- Save the completed form and send as an attachment by e-mail.

Please submit your completed survey by **January 21, 2011** to: beth@charismc.com.

Thank you for taking the time to complete this survey. Your response is greatly appreciated!

Interaction with the HTA Program

1. How do you know about the HTA Program at IHE? *Check all that apply:*
- ☐ I am a requester of HTA products/services
 - ☐ I have provided methodological expertise
 - ☐ I represent another HTA organization
 - ☐ I am an external reviewer for an HTA product
 - ☐ I am a recipient of HTA products
 - ☐ I am a user of HTA products
 - ☐ Other(s) – *please specify:*
2. Have you been involved in a specific project with the HTA Program? ☐ Yes ☐ No

Title of project(s):

- a. If **Yes to #2**, what was your role?

HTA Program Responsiveness, Engagement and Networking

3. On a scale of 1 to 4 with 1 being “Poor” and 4 being “Excellent”, how do you rate the following: *Check one per row*

	Poor 1	Fair 2	Good 3	Excellent 4	Unable to comment 5
a The level of awareness of IHE’s HTA Program amongst:					
The HTA community nationally	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
The HTA community internationally	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
b The HTA Program’s networking with:					
National partners	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
International partners	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
c The HTA program’s collaboration with:					
National partners	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
International partners	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
d The adaptability of the program to changes in the HTA environment	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
e The overall satisfaction level of recipients of the IHE HTA Program’s products and services	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅

HTA Program Principles and Values

HTA Program Principles and Values

4. Indicate your level of agreement or disagreement with the following statements about the HTA Program at IHE:

Check one per row

	Strongly Disagree 1	Disagree 2	Agree 3	Strongly Agree 4	Unable to comment 5
a The program and its staff are accountable to their requesters/funders.	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
b The program is transparent.	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
c The program is truthful.	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
d The program and its staff demonstrate independence.	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
e The program and its staff demonstrate objectivity.	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
f Information presented by the program is accurate (of high scientific rigour).	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
g The program fosters an environment of mutual respect.	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
h The program fosters an inclusive environment.	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅

HTA Products: Awareness and Use

5. For each of the following categories of products produced by the HTA Program at IHE, please indicate your awareness, whether you used any of the products and how useful you have found the products.

	1. Are you aware of this/these product(s)?		2. If yes to Q1 , have you used it /them in your work?		3. If yes to Q2 , how useful have you found the product(s)? <i>Check one per row</i>				
	Yes	No	Yes	No	Very useful 1	2	3	4	Not at all useful 5
a Are you aware of any of the following Health Technology Assessments ? If yes, check which ones and complete the rows. If no, proceed to question 5b.	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂							
Treatment for Convicted Adult Male Sex Offenders (2010)	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
Exercise testing for the prediction of cardiac events in patients with diabetes (2009)	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
Effectiveness of organizational interventions for the prevention of occupational stress (2009)	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
Islet transplantation for the treatment of type 1 diabetes – an update (2008)	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅

HTA Products: Awareness and Use

5. For each of the following categories of products produced by the HTA Program at IHE, please indicate your awareness, whether you used any of the products and how useful you have found the products.

	1. Are you aware of this/these product(s)?		2. If yes to Q1 , have you used it /them in your work?		3. If yes to Q2 , how useful have you found the product(s)? <i>Check one per row</i>				
	Yes	No	Yes	No	Very useful 1	2	3	4	Not at all useful 5
The role of rapid fetal fibronectin in the management of spontaneous preterm labour (2008)	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
b Are you aware of any of the following STep Reports ? If yes, check which ones and complete the rows. If no, proceed to question 5c.	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂							
Insulin Pump Therapy (2010)	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
Human papillomavirus (HPV) testing in Alberta (2009)	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
Assistive reproductive technologies: a literature review and database analysis (2009)	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
Newborn screening for cystic fibrosis (2007)	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
The use of automated auditory brainstem response and otoacoustic emissions tests for newborn hearing screening (2007)	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
c Are you aware of any of the following books ? If yes, check which ones and complete the rows. If no, proceed to question 5d.	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂							
Chronic Pain: A Health Policy Perspective (2008)	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
Determinants and prevention of low birth weight: a synopsis of the evidence (2008)	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
'A Literature Summary on Parkinson Disease'. In, Parkinson Disease: A Health Policy Perspective. (2010)	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
d Are you aware of any other products of the IHE HTA Program? If yes, check which the type of product and complete the rows. If	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂							

HTA Products: Awareness and Use

5. For each of the following categories of products produced by the HTA Program at IHE, please indicate your awareness, whether you used any of the products and how useful you have found the products.

	1. Are you aware of this/these product(s)?		2. If yes to Q1, have you used it /them in your work?		3. If yes to Q2, how useful have you found the product(s)? <i>Check one per row</i>				
	Yes	No	Yes	No	Very useful 1	2	3	4	Not at all useful 5
<i>you are aware of products not captured in the following categories, please list below.</i>									
e Information Papers	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
f QwikNotes (Level A & Level D)	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
g Any Ambassador products	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
h INAHTA (Briefs, checklists, impact frameworks)	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
i Other - Please specify:	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
j Other - Please specify:	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅

HTA Products: Quality

6. If you answered yes to any of the items in #5, please rate the quality of the product(s) with which you are familiar. If you have used more than one HTA Program product, please base your answers on the overall quality of the products as a group.

Check one per row

	Poor 1	Fair 2	Good 3	Excellent 4	Unable to comment 5
a Overall quality	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
b Readability	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
c Timeliness	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
d Accuracy	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
e Appropriateness	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
f Relevance	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
g Format	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
h Content	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
i Practicality	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5

7. Provide comments on any of the above:

Final Comments

8. Do you have any further comments on the HTA Program or its products/services?

Thank you for taking the time to complete this survey. Your response is greatly appreciated!

Appendix G: Researcher Survey

Evaluation of the Institute of Health Economics Health Technology Assessment Program

Survey of IHE HTA Program Researchers

Charis Management Consulting Inc. has been contracted to conduct a process and impact evaluation of the Health Technology Assessment Program at the Institute of Health Economics. The evaluation will utilize a variety of approaches including impact and utilization assessments of individual HTA Program projects, overall process and accountability evaluation, and case studies of key projects.

As researchers for the HTA Program, you are being asked to complete and return this survey according to the instructions below. Select researchers will also be asked to participate at a later date in interviews related to the three case studies and/or the HTA Program overall.

This survey addresses one specific project of the HTA Program, as indicated at the top of page 1. Please base your answers on this project alone. You may complete this survey alone, or in cooperation with other IHE researchers who worked on this project.

Charis researchers will keep your responses to opinion questions confidential. Results will be compiled and reported in a summary format.

If you have any questions about this survey, please contact **Beth Hayward** of Charis Management Consulting Inc. at **(780) 496-9067, ext. 233** or by email at beth@charismc.com.

Your completion of the survey will indicate your consent to participate in the evaluation.

Instructions for electronic completion of the survey are as follows:

- Click on the tab or the arrow keys of your keyboard to move between questions or response fields.
- Left click on the check box to enter your response.
- Enter only one response per question unless otherwise directed.
- Enter text responses by clicking on the text box. The box will expand as you type.
- Save the completed form and send as an attachment by e-mail.

Please submit your completed survey by **January 10, 2011** to: beth@charismc.com.

Thank you for taking the time to complete this survey. Your response is greatly appreciated!

HTA Program Researcher Survey

Project Information
Project Title:
Report type (HTA, STEp):
Date requested:
Date final report submitted:
IHE Researchers:
Questionnaire completed by:
Date questionnaire completed:

Use of Research in the Research System
--

1. Has participation in this research led to additional formal qualifications for any members of the project team or is it likely to do so? ☐ Yes ☐ No ☐ Don't know
 - a. **If yes**, please give details of number and type of qualifications achieved and expected.

2. Have the project findings, methodology or theoretical developments generated subsequent research by members of the team? ☐ Yes ☐ No ☐ Don't know
 - a. **If yes**, please give details of further grants, if any, and describe the contribution of your original project to securing these funds.

3. Are you aware of any significant ways in which your HTA project has contributed to further research conducted by others? ☐ Yes ☐ No ☐ Don't know
 - a. **If yes**, please give details of such research (including any associated publications or grants) and describe the contribution of your HTA project.

4. Please describe any other important contribution to further research.

Use of Research Findings in Health System Policy/Decision-Making

5. Research findings can be used in policy making at any level of the health system (e.g., national, local, professional, administrative or managerial). ☐ Yes ☐ No ☐ Don't know

Have the findings from your project already been used in any such ways?

a. Is/was any policy decision made by Alberta Health and Wellness or the regional health authorities/AHS in response to the research findings? ☐ Yes ☐ No ☐ Don't know

6. Are there any reasons for expecting the findings to be used for future policy/decision-making? ☐ Yes ☐ No ☐ Don't know

7. If you replied **Yes to # 5 or #6** please give details below of the use and/or expected use.

a. At which level were policies/decisions influenced?

Check all that apply:

- ☐ Local unit of health service
- ☐ Regional health authority
- ☐ Provincial government
- ☐ National professional body
- ☐ National policy-making body
- ☐ National government
- ☐ International body
- ☐ Other(s) – *please specify:*

Please describe:

b. How important were the project's findings to the adoption of the policy or decision? *Please describe:*

c. Provide any supporting evidence – documents, where relevant, should be provided or references given. *Please describe*

List relevant documents/references:

Application of the Project Findings through Changed Practice

8. Have the findings from your project already led to changes in the practice of health practitioners, managers, administrators, or in the involvement of health service users or the wider public? ☐ Yes ☐ No ☐ Don't know

9. Do you expect the findings to influence practitioner or managerial practice or involvement of health service users or the public in the future? ☐ Yes ☐ No ☐ Don't know

10. If you replied **Yes to #8 or #9** please give details regarding the changes in practice/expected changes in practice.

a. What group(s) or individual(s) implemented practice changes?

Check all that apply):

- ☐ Health practitioner
- ☐ Administrator
- ☐ Manager
- ☐ Health service users
- ☐ General public

☐ Other(s) – *Please specify:*

Please describe:

b. At what level did change occur?

Check all that apply):

- ☐ Local – institution
- ☐ Local – network
- ☐ Provincial
- ☐ National

☐ Other(s) – *Please specify:*

Please describe:

c. How important were the research findings from this project in changing practice?

d. Provide any evidence (such as surveys of practitioners) to support claims that such changes in behaviour were caused by the research findings – attach documents where relevant or give references.

Please describe:

List relevant documents/references:

Factors Influencing the Utilization of Research, Including Dissemination

11. What was the mechanism for distribution of the product(s) for this project?

a. How broad was the initial distribution?

b. In your opinion, was the initial distribution of the product(s) adequate? Did it reach intended/potential audiences?

☐ Yes ☐ No ☐ Don't know

Please explain (why or why not, any suggestions):

12. Has the research been utilized in any way not described in previous questions?

☐ Yes ☐ No ☐ Don't know

a. **If yes**, please give details of utilization or expected utilization.

13. Approximately how many conference/workshop presentations have been made based on, or as part of, this project:

Primarily academic audiences

Primarily practitioner audiences

Primarily service user audiences

14. Were any of these presentations, or any other dissemination activities, particularly important in achieving utilization of the project's findings or products?

☐ Yes ☐ No ☐ Don't know

Please describe:

15. Were any aspects of interaction with potential users particularly important?

☐ Yes ☐ No ☐ Don't know

Please describe:

16. Describe any other factors that account for the research being adopted/utilized, or for the lack of adoption/utilization.

Facilitating factors:

Barriers to adoption/utilization:

17. To what extent was utilization of the project enhanced by association with the IHE HTA Program?

Check one:

- ☐ Not at all
☐ A little
☐ Moderately
☐ Considerably
☐ Extensively

Please explain:

18. How could the IHE HTA Program further facilitate or encourage the utilization of its research?

19. Please list all publications that resulted, at least partially, from this HTA Program project. Include all types of publications, and use the following letters, in parentheses following the title, to categorize each one:

Publications [and types]:

- A = peer-reviewed journal article
- B = journal editorial
- C = journal letter
- D = published abstract
- E = book
- F = chapter
- G = non-peer reviewed article
- H = published conference proceedings
- I = publicly available full report
- J = website
- K = newspaper (please specify)
- L = radio
- M = television
- N = other (please specify)

20. List any websites that host reports or other products from this HTA project.
21. How many direct requests have been received for products or presentations from this HTA project?
22. Do you have any additional comments?

Thank you for taking the time to complete this survey. Your response is greatly appreciated!

Appendix H: Provincial and Organizational Context

To help the reader better understand the environment within which the HTA Program exists, and to contextualize its activities, a short summary of the history of HTA in Alberta is included here.⁸¹

For many years throughout the late 1980s to the mid 90s, the Alberta Ministry of Health had a small section within the ministry dedicated to the creation and establishment of a provincial HTA program. During this time rapid reviews on new technologies were conducted mainly for the out of country services advisory committee. In November 1995, this program was officially launched as an independent provincial HTA function at the AHFMR, an arms-length organization, which funded health research. This program was to be responsive to the needs of the health system and its stakeholders. HTAs were produced at the request of the health care system stakeholders subject to the capacity of the unit and consisted primarily of systematic reviews. AHFMR would contract on an as-needed base with the IHE to do economic analysis, if required. The provincial program was administered by the AHFMR for 11 years.

In 2002, an Expert Advisory Panel on Publicly Funded Health Services (the Panel) was established by AHW to review publicly funded health services. In its report, the panel recommended adoption of certain criteria as screens for determining whether particular technologies should be publicly funded. In response to its report 'Burden of Proof'⁸², the government directed that existing decision processes be strengthened, resulting in the establishment of the Alberta Health Technologies Decision Process (AHTDP) in 2004 to coordinate decision-making. A broader conceptualization of the nature of HTAs was seen to be required to use the criteria recommended by the Panel to support policy decision-making. The AHTDP was mandated to commission HTAs from a variety of HTA producers.

At the time, the Ministry estimated no more than 10-12 reviews would be commissioned annually. The AHTDP, therefore, was intended as a specialized adjunct to the provincial HTA function, not to replace it. The majority of HTAs were to be performed under the provincial HTA function which resided at AHFMR.

In July 2006, the AHW Minister, Iris Evans, moved the provincial HTA program from AHFMR to the IHE, an arm's length organization constituted as a partnership between government, academia and industry with special expertise in economic evaluation. This move consolidated two separate HTA-related AHW grants (i.e., previously one with AHFMR and one with IHE), allowing the production of integrated HTAs with broadened scope. A collaboration with the University of Alberta further expanded the expertise on the HTA Program core team by seconding dedicated information specialists who conducted comprehensive searches and provided a synergistic and supportive link with other information specialists working with academics interested in HTA.

In 2007, *Health Technology Assessment in Alberta: A Strategic Plan* was developed and approved. This plan, prepared jointly by IHE and AHW, set out an analysis of the changing context of HTA and identified eight key strategies to foster enhanced production, dissemination and application of scientific evidence in health care. IHE accepted the lead responsibility for the implementation of the strategic plan in partnership with all members of Alberta's HTA community, including other research groups, health authorities, AHW, universities, and other organizations.

⁸¹ Parts of this section are extracted directly from *Health Technology Assessment in Alberta: A Strategic Plan: AHW, IHE (2007)*.

⁸² Alberta Health Services, Expert Advisory Panel to Review Publicly Funded Health Services. *The Burden of Proof. An Alberta Model for Assessing Publicly Funded Health Services*. March 2003; pp. 1-26.

That year the impetus to establish the Decision Analytic Modeling Unit within IHE emerged out of the HTA Program work. This Unit is comprised of a team of interdisciplinary researchers including health economists, biostatisticians, epidemiologists and clinicians dedicated to using decision analytic approaches to inform decisions relating to the allocation of health resources. Unit staff undertake economic evaluation, budgeting and planning, epidemiologic surveillance and clinical research trials and is funded mostly through one of the HTA Program grants. This expanded base of economic expertise broadened the scope for HTA.

By the end of 2008, changes were occurring relative to the needs of the health system for broader HTAs and more of them. As well, a change in the provincial leadership for the AHTDP occurred which may have resulted in different conceptualization and/or expectations for HTA services in Alberta. In 2009, a change in governance of Alberta's health system came about with the merger of all provincial health authorities – the regional health authorities, the Alberta Cancer Board, the Alberta Mental Health Board, and the Alberta Alcohol and Drug Abuse Commission – into one super board, Alberta Health Services (AHS). Partners and key stakeholders for HTA in Alberta saw significant movement and turnover during this period.

While the above describes the provincial context it is equally as important to understand the organizational context within which the HTA program has been operating as it has impacts for this evaluation. As noted earlier, the HTA program was established in 1995 as an independent provincial HTA function at the AHFMR. The HTA Unit was a separate program but benefited from the expertise and services within AHFMR including evaluation services, communication and outreach, as well as their strong local and international reputation. They were able to contract for other services and expertise (i.e. economic analysis) as needed. The HTA program had their own product line, distinct from AHFMR's product line, and was able to brand and disseminate independently while capitalizing on the corporate culture of innovation. The HTA program contributed to the organization's capacity building mandate by providing seed grant funding to the University of Calgary, Calgary Health Region, and the Capital Health Region to conduct HTAs.⁸³

Around the same time as the HTA program was established at AHFMR, the Institute of Pharmaco-Economics was established (1995) and work commenced on health economics, health outcomes and health policy research. In 1999, the organization changed its name to IHE to reflect the broader research mandate of the Institute and the fact that IHE's research encompasses all aspects of the health care system. In 2003, IHE organized the 19th annual conference of the International Society of Technology Assessment in Health Care in Canmore and was designated to be the Secretariat for Health Technology Assessment International (HTAi); HTA became integral to the work of IHE.

In 2005, the health technology strategy agreed to grow the HTA capacity both provincially and nationally by establishing the Alberta Health Technology Assessment Network of Excellence that included IHE. In 2006 the provincial was moved to IHE, an organization with a different set of values and mission funded through multiple sources including provincial grants. While functioning independently, the HTA Program supports various activities undertaken by IHE such as conducting systematic reviews to inform Consensus Conferences; contributing to the IHE product line; or funding special initiatives which directly or indirectly help the HTA Program meet its program objectives. IHE is a non-profit organization that is now committed to producing, gathering, and disseminating health research findings from health economics, health policy, health technology assessment and comparative effectiveness to improve the delivery of health care and support a sustainable future.⁸⁴

⁸³ Personal conversation with Christa Harstall: August 4, 2010

⁸⁴ <http://ihe.ca/about/>

Appendix I: Expected and Actual Deliverables by Grant

Grants by Year and Activity: Expected and Actual

Agreement #1 HTA Program (July 1/06 – March 31/07)

Expected Activities	2006/07 Actual
<ol style="list-style-type: none"> 1. Maintain and operate a provincial Health Technology Assessment process... 2.Continue and enhance Health Technology Assessment activities that incorporate internationally accepted best practices and position Alberta as a leader nationally and internationally in the HTA and in incorporating evidence into health policy and practice 3. Maintain and enhance a HTA network within Alberta, and with those in other provinces, nationally and internationally. 4. Establish and maintain formal linkages to and working relationships with the Minister's Representative 	<ul style="list-style-type: none"> ▪ Collaborations: <ul style="list-style-type: none"> ▪ Provincial: Alberta Perinatal Program: factors contributing to low birth weight that became a Consensus Conference ▪ National: CADTH re: Implementation of HT Analysis Exchange ▪ International: (2) Romania and China ▪ Capacity building: mentoring (2) ▪ Visiting scholars (2) ▪ Methodology: <ul style="list-style-type: none"> ▪ Chair International Ethics working group ▪ Knowledge transfer: <ul style="list-style-type: none"> ▪ RTNA (co-chair and member of working group on dissemination) ▪ Acting Director for INAHTA Board ▪ Participated in international conferences and meetings
<ol style="list-style-type: none"> 1. Move staff to IHE 	Completed over summer of 2006
<ol style="list-style-type: none"> 1. Develop a proposal or work plan describing approach, assumptions, guiding principles, deliverables, advisory group structures, consulting services, stakeholder involvement, and related services and approaches to be used to develop the Plan for enhancing HTA (by July 14/06) 2. The actual plan...working title being Enhancing Alberta's Health Technology Assessment Model: Strategic Plan (by October 1/06) 	<ul style="list-style-type: none"> ▪ Advisory committee established to help guide this exercise ▪ Annual Report says deadline was October 31/06 (versus October 1 in agreement)

Expected Activities	2006/07 Actual
<p>...includes but not limited to:</p> <ol style="list-style-type: none"> 1. Conduct of research to inform the operation of the HTA function 2. Develop a line of products and reports supporting knowledge transfer of Findings from HTA 3. Include in Project and annual Reports a description of activities conducted and their outcome 	<ul style="list-style-type: none"> ■ Products produced: <ul style="list-style-type: none"> ■ 2 STEP reports ■ 2 Initiative papers ■ 1 Information paper ■ 3 TechNotes ■ 7 QwikNotes (Level D) ■ 1 newsletter ■ 9 external publications ■ 17 conference attendance ■ Ambassador Program 2 years additional funding approved by AHFMR Board ■ Produced an Annual Report
<ol style="list-style-type: none"> 1. ...in addition to utilizing existing structures at IHE and the Alberta Advisory Committee on Health Technologies, the IHE will establish...a Plan steering committee and such other advisory committees as may be required 2. IHE will respond in a timely and appropriate manner to reasonable requests for information and advice from the Minister, the Deputy Minister, or Minister's representative concerning matters related to HTA activities and transitional activities. 	<ul style="list-style-type: none"> ■ Advisory committee established to help guide development of Strategic Plan

Agreement #2: HTA Program (March 31/07 – March 31/12)

Expected Activities	Actual Activities		
	2007/08	2008/09	2009/10
General comments	<ul style="list-style-type: none"> First full year of operation within IHE Needs of health system changing requiring HTAs to be broader with a drive to greater efficiency (broader range of skills and knowledge with HTA systems required); increased receptor capacity needed; increased demand for HTAs 	<ul style="list-style-type: none"> Governance of Alberta's health system came about but did not have significant effect on trends and strategies approved in last fiscal year. Implementation activities focused on 1) building HTA-related capacity and 2) developing a policy response to the health system restructuring and establishment of AHS. Implementation of most components of the Strategic Plan (approved Dec/07) was placed on hold. 	<p>Two changes to the health system provide challenges and opportunities for achieving the goals and objectives outlined in the grant agreements:</p> <ul style="list-style-type: none"> Merger of all provincial health authorities into one board, Alberta Health Services (AHS) April 2009 Minister's Advisory Committee on Health: "A Foundation for Alberta's Health System", Jan/10 – is initiative to revamp the legislative basis for Alberta's health system and the establishment of an independent agency whose contemplated functions overlap with the functions of the HTA program
1. <u>Maintain, promote and operate a provincial HTA process</u> supported by an identifiable unit within IHE that fulfills the requirements of the Minister and also supports the needs of the Health System	<ul style="list-style-type: none"> HTA Unit continues within IHE; IHE Strategic Plan 2008 – 2011 includes expanding number and skills of staff Unit promoted on IHE website HTA program supports other programs/initiatives at IHE 	<ul style="list-style-type: none"> Jan/09: an additional FT research associate joined team Unit promoted on IHE website A new framework for the provincially funded research and innovation system was released. HTA falls within this area and as such was invited to participate in a stakeholder forum on this issue. 	<ul style="list-style-type: none"> A FT researcher started her PhD studies and reduced time to PT; an Information Specialist resigned and position was vacant for 6 months. Unit promoted on IHE website

Expected Activities	Actual Activities		
	2007/08	2008/09	2009/10
	Collaborations: <ul style="list-style-type: none"> Provincial: Alberta Perinatal Program National: CADTH, CAHSPR, Canadian Health Technology Analysis Exchange International: INAHTA, HTAi, HEN (WHO), PNWER, 2 researchers interested in tool development 	Collaborations: <ul style="list-style-type: none"> Provincial: initial work with the Alberta Mental Health Board related to stress in the workplace contributed to enhanced KT and research skills and resulted in the project lead being hired to a permanent position National: CADTH, CAHSPR, Canadian Health Technology Analysis Exchange, Canadian Pain Society International: INAHTA, HTAi, HEN (WHO), PNWER 	Collaborations: <ul style="list-style-type: none"> National: CADTH, CAHSPR, Canadian Health Technology Analysis Exchange International: INAHTA, HTAi, HEN (WHO), PNWER
	Capacity Building: <ul style="list-style-type: none"> Emphasis was on production or research side Agreement with UA Information Specialists reached Mentoring (2): one got hired by AMHB after 6 month placement with HTA Program Session on HTA to SEARCH program 	Capacity Building: <ul style="list-style-type: none"> Funding provided to U of C to develop and provide each year a Health System Evaluation course; first session scheduled Spring 2009; contributes to intent of HENA Pilot program on methods for capacity building in systematic review searching Ongoing secondment of Information Specialists 	Capacity Building: <ul style="list-style-type: none"> Ongoing secondment of Information Specialists HTA Director is member of KT Initiatives Advisory Committee hosted by AIHS School of Public Health (UA) interested in collaboration on an apprentice program for HTA

Expected Activities	Actual Activities		
	2007/08	2008/09	2009/10
	<p>HENA:</p> <ul style="list-style-type: none"> Health Evidence Network of Alberta launched Dec/07 and proposal for funding submitted to AHW for consideration 	<p>HENA:</p> <ul style="list-style-type: none"> IHE has lead for implementing the Alberta Strategic Plan which includes strategies for enhancing HTA structure and capacity; establishment of this network on hold due to system changes forthcoming IHE published a report (Comparative Effectiveness: An Overview) that looked at the topic and its relationship to other assessment frameworks (funded, in part, by the HTA grant) IHE hosted its 1st Innovation Forum to address a policy issue 	<p>HENA:</p> <ul style="list-style-type: none"> Shift from formally creating a network to other activities including: IHE hosted two (2) Innovation Forums in their series: 1) Making Difficult Decisions (May 25/09) and 2) Maximizing Health System Performance: Cost Containment and Improved Efficiency (December 1/09) Developed a strategy to inform discussions for grant renewal Participated in other strategic planning activities with AHW/AHS Development of policy and other reports to government and provincial advisory committees, for example, Minister's Advisory Committee on Health Conducted a workshop Effective Involvement of Patients in Health Technology Decisions: What Does Best Look Like?

Expected Activities	Actual Activities		
	2007/08	2008/09	2009/10
	Consensus Conference: <ul style="list-style-type: none"> May 2007, Healthy Mothers, Healthy Babies 	Consensus Conference: <ul style="list-style-type: none"> Systematic review for fetal alcohol spectrum disorders (FASD) commissioned Publication of a book (FASD- Across the Lifespan); summary of book used by others as a key resource 	Consensus Conference: <ul style="list-style-type: none"> Completed a systematic review in support of the Expert Panel for the FASD Consensus Development Conference (October/09)
	Ambassador Program (Phase 2): <ul style="list-style-type: none"> Innovative KT strategy that is viewed as separate program due to scope and scale Involves 14 partner agencies Work begun on development of Clinical Practice Guideline (CPG) for the prevention and management of low back pain 	Ambassador Program (Phase 2) <ul style="list-style-type: none"> Continues as a separate program due to its scope and scale CPG for prevention and management of low back pain completed this year Initiated planning for process evaluation, outcomes research, and dissemination phases to inform upcoming development of guidelines for headaches. Program featured in an IHE report released June 2008 and in the book Chronic Pain: A Health Policy Perspective published by Wiley-Blackwell as well as several national and international audiences 	Ambassador Program (Phase 2): <ul style="list-style-type: none"> Continues as a separate program due to its scope and scale CPG for prevention and management of low back pain posted to Towards Optimized Practice (TOP) website and CMA website Program profiled in AHS Connect Newsletter (June 2009) Dissemination activities related to management of low back pain underway Results of process evaluation shared Work began on CGP for management of headaches

Expected Activities	Actual Activities		
	2007/08	2008/09	2009/10
	Knowledge Transfer: <ul style="list-style-type: none"> Increased attention to KT strategies RTNA (co-chair and member of working group on dissemination) Acting Director for INAHTA Board Participated in international conferences, workshops and meetings 	Knowledge Transfer: <ul style="list-style-type: none"> Ambassador Program as noted above Participated in international conferences, workshops and meetings 	Knowledge Transfer: <ul style="list-style-type: none"> Ambassador Program as noted above Participated in international conferences, workshops and meetings
2. Establish <u>visible and accessible points of entry for requesters and users of Findings and other HTA products</u> within the Health System, including standard procedures, with appropriate timelines, for submitting and responding to requests for Findings and other HTA products	<ul style="list-style-type: none"> Strategic Plan released at stakeholder meeting Dec/07 and IHE accepted the lead responsibility for implementation Product line defined including scope, time to complete, process for review, etc. 	<ul style="list-style-type: none"> New website launched that includes publication section, search engine and a newly created health statistics database to facilitate access to hard-to-find information. Maintained linkages with key stakeholders through collaboration on projects, meetings and conference presentations 	<ul style="list-style-type: none"> IHE website maintained with HTA program information and product links Ambassador Program website maintained Clear definitions and timelines associated with various product lines
3.the Institute will <u>develop or refine and maintain a prioritization mechanism</u> to ensure that the activities are in keeping with the overall needs and priorities of the Health System and that requests from the Health System are not unreasonably refused or delayed.	<ul style="list-style-type: none"> AHTDP projects selected on the recommendation of the Advisory Committee on Health Technologies (AACHT) 	<ul style="list-style-type: none"> AHTDP projects selected on the recommendation of the Advisory Committee on Health Technologies (AACHT) Periodic surveys of health system stakeholders; ad hoc feedback from health system leaders 	<ul style="list-style-type: none"> AHTDP projects selected on the recommendation of the Advisory Committee on Health Technologies (AACHT)

Expected Activities	Actual Activities		
	2007/08	2008/09	2009/10
4. ...operates in a <u>credible, independent, and transparent</u> manner and in keeping with <u>generally accepted practices and standards for HTA in the production and dissemination of its Findings</u> and other HTA products including their publication and public release by posting publication-quality reports on the Institute's website, issuance of printed reports, and such other publication as the Institute deems appropriate.	Methodology: <ul style="list-style-type: none"> HTA Internal Policy and Procedures Manual updated Chair, International Ethics working group (established by HTAi and INAHTA) Re-engineering of a tool for the critical appraisal of the methodological quality of case series analysis included in HTAs Piloting and evaluating HTA consumer summaries Review of challenges in applying research evidence to the local context Use of HTA to identify gaps in clinical research. Ambassador Program modified the AGREE instrument to make it more user friendly and reliable for appraisal and selection of evidence based guidelines. 	Methodology: <ul style="list-style-type: none"> Conference presentations on experiences gained through the Ambassador Program Chair, International Ethics Working Committee Development of tool to assess quality of case series studies 	Methodology: <ul style="list-style-type: none"> Chair, International Ethics Working Committee Development of tool to assess quality of case series studies
	Skill development: <ul style="list-style-type: none"> Knowledge and skills of staff were supported Mentoring opportunities Attendance at meetings/conferences 	Skill development: <ul style="list-style-type: none"> Staff participation in conferences, in-house and third party workshops or training sessions 	Skill development: <ul style="list-style-type: none"> Staff participation in conferences, in-house and third party workshops or training sessions; each staff

Expected Activities	Actual Activities		
	2007/08	2008/09	2009/10
		Dissemination practices: <ul style="list-style-type: none"> Multiple approaches used including unique approaches in the Ambassador Program 	Dissemination practices: <ul style="list-style-type: none"> Supported review of methodology used to produce rapid assessments Prepared report for AHW on enhancing the use of the range of available HTA products in the provincial process for making coverage decisions (Utilizing Diverse HTA Products in the Alberta Health Technology Decision Process) March/10
5. With input from advisory committees that may be established in consultation with the Minister, continue and enhance Health Technology Assessment activities including the provincial HTA process and unto to position Alberta as leader nationally and internationally in incorporating evidence into health policy and practice.	<ul style="list-style-type: none"> Staff presented on 20 occasions; published 21 reports or manuscripts 	<ul style="list-style-type: none"> Staff did 22 presentations; published 20 IHE reports, 1 manuscript in a peer-reviewed journal, contributed to 2 books IHE (including the HTA Program) has contributed to publication of a series of books on various health topics resulting in enhanced credibility and broader dissemination of work The Management of Chronic Disease book edited 7 completed assessments were published/submitted to INAHTA Briefs Compilation 	<ul style="list-style-type: none"> Staff did 22 presentations; published 21 reports, 3 manuscripts in peer-reviewed journals, contributed to 1 book chapter (Wiley-Blackwell) 4 updates for Evidence in Briefs (Ambassador Program on Low Back Pain) were completed plus 3 reports Completed a systematic review Treatment for convicted adult male sex offenders for mental health experts at AHS; final draft circulated for external peer review (last quarter)

Expected Activities	Actual Activities		
	2007/08	2008/09	2009/10
	<ul style="list-style-type: none"> Staff responded to 69 requests for information of 80% of Level A, B, and C QwikNote requests are from individuals outside Alberta with about 50% of the total originating outside Canada. 	<ul style="list-style-type: none"> Staff responded to 22 requests for information; >75% come from outside Canada and (often) other HTA agencies 	<ul style="list-style-type: none"> Staff responded to 27 requests for information; > 75% come from outside Canada and (often) other HTA agencies.
6. Maintain formal linkages to and working relationships with the Minister's Representative.		<ul style="list-style-type: none"> Maintained linkages at provincial, national and international levels through: <ul style="list-style-type: none"> membership in key organizations host organization for the corporate offices of HTAi and editorial office of its journal dissemination of low back pain guideline participation in or presentations at key conferences 	Maintained linkages at provincial, national and international levels through: <ul style="list-style-type: none"> membership in key organizations host organization for the corporate offices of HTAi and editorial office of its journal dissemination of low back pain guideline participation in or presentations at key conferences
IHE shall perform short term projects related to the enhancement of the HTA in Alberta, including but not limited to:	<ul style="list-style-type: none"> 7 QwikNotes (Level D) produced 	<ul style="list-style-type: none"> Dissemination of knowledge gained in guideline development in the Ambassador Program 10 QwikNotes (Level D) produced 	<ul style="list-style-type: none"> Updates to Evidence in Briefs 3 QwikNotes (Level D) produced

Expected Activities	Actual Activities		
	2007/08	2008/09	2009/10
1. Conduct of research to inform and improve the operation of the provincial HTA process and related processes		<ul style="list-style-type: none"> Review and assessment of low back pain guideline by out-of-province experts, patient focus group and Alberta health practitioners 	
2. Development of a line of products and reports supporting knowledge	<ul style="list-style-type: none"> Just over a dozen requests were received this year that involved providing the requester with a report from the core product line. 4 core products (QwikNotes, TechNotes, Information Papers and Technology Assessment Reports) that are differentiated by amount of time required to complete and focus of work 2 other products: HTA Initiatives and Joint Reports (not standardized); all reports available on IHE website. 	<ul style="list-style-type: none"> Completed 2 HTA reports; 12 rapid assessments and 5 Information Papers Support provided for projects in their publication stages <ul style="list-style-type: none"> Parkinson Disease: A Policy Perspective draft report (IHE published in the book series in 2009) An Information Paper (Effective Dissemination of Findings from Research) was published in June/08 	<ul style="list-style-type: none"> Completed 3 publications including 1 book Several reports posted to the Ambassador Program and INAHTA websites as noted earlier.
3. Refinement of the existing provincial HTA process product line including the Findings to reflect the needs of receptor organizations and the existence of other producers, such as the Canadian Agency for Drugs and Technology in Health (CADTH), where long-term capability of the producer is expected	Product line was revised this year as was methodology and formats for reporting HTA products	A modified core product line was introduced (new categories of Assessment Reports [3 types] and Information Requests [3 levels]); 1 new product introduced and 2 dropped.	A new product was introduced late 2009/10 (Comparative Effectiveness Reports) as a result of recent developments relating to comparative effectiveness research in the United States and by IHE's own publication, titled <i>Comparative Effectiveness: an Overview</i> (Hailey, Jonsson, Jacobs).

Expected Activities	Actual Activities		
	2007/08	2008/09	2009/10
4. ...Minister's representative must be advised in advance of any significant changes that are being contemplated to this program and a proposal provided for the Minister's consideration and approval before any such changes are implemented			
<p>The Institute shall provide for the development or revision of accountability mechanisms, including but not limited to:</p> <ol style="list-style-type: none"> 1. Moving to a project-based budgeting and reporting system 2. Inclusion of performance targets in the work plans for each Fiscal Year starting with the 2008/09 Fiscal Year 3. Development of reports and other mechanisms, satisfactory to the Minister, by September 30, 2007, to report on performance 	Completed a comprehensive, stand-alone Annual Report	Completed a comprehensive, stand-alone Annual Report	Completed a comprehensive, stand-alone Annual Report

Expected Activities	Actual Activities		
	2007/08	2008/09	2009/10
In addition to utilizing existing structures at the Institute and the Alberta Advisory Committee on Health Technologies, the Institute will establish in consultation with the Minister such advisory committees as may be required to assist the Institute with achieving the purposes of this agreement		Consultation, collaboration and coordination achieved through activities described above	Consultation, collaboration and coordination achieved through activities described above
The Institute will respond in a timely and appropriate manner to reasonable requests for information and advice from the Minister, the Deputy Minister, or Minister's Representative concerning matters related to the Project			

Agreement #3: HTA Strategic Plan (March 31/07) (one time funding to develop the plan)

Goal	Objectives	Expected Activities	Actual
Implement the approved HTA Strategic Plan	Lay the foundation for the establishment of the Alberta Network for Evidence and Policy in Health	<ul style="list-style-type: none"> Organize and hold a founding meeting, workshop or conference of Alberta HTA producer and receptor organizations, including the CADTH Any other activity that the Institute deems necessary for the establishment of Alberta Network for Evidence and Policy in Health 	<ul style="list-style-type: none"> Strategic plan for HTA in AB (expansion to current commitment; IHE has lead responsibility to implement) Creation of HENA; interim funding by AHW provided; ongoing \$ under consideration but put on hold in 2008/09 Funded UC course

Agreement #4: AHTDP (initiated in March 2006); text taken from 2007/08 HTA Program Annual Report

Expected Activities	Actual
Provision of rapid responses for the Decision Process <ul style="list-style-type: none"> IHE agreed to maintain capacity to produce up to 3 commissioned HTA reports (STE reports) per year (IHE is one of 3 agencies that support the Decision Process) Many factors influence whether or not available research and analytical capacity at IHE is fully used 	<ul style="list-style-type: none"> Supported the development of a special report (STE report) to meet needs of Decision Process Core staff include information specialists, research associates from the HTA program, and health economists from the Decision Analytic Modeling Unit or those affiliated with IHE; other IHE program staff may also be involved in building capacity Capacity related to AHTDP projects was underutilized this year due to timing of referrals and work on previously referred topics being put on hold <ul style="list-style-type: none"> Completed considerable work on the Islet Cell Transplantation review Project planning for HPV screening project initiated but without a signed charter 2 rapid responses completed Decision Analytic Modeling Unit completed a cost analysis and developed a decision analytical model for a cost effectiveness analysis of assisted reproductive technologies
Building capacity for the production, implementation and use of evidence in health policy and practice <ul style="list-style-type: none"> This agreement gives IHE latitude to determine what specific actions it pursues in this area (e.g. hiring additional staff, introducing new KT strategies such as Consensus Conferences) 	<ul style="list-style-type: none"> Nov/07: Decision Analytic Modeling Unit established at IHE Launch of pharmacoeconomic workshops (a series of 9 of which 3 were held this year) IHE disseminated findings of AHTDP projects <ul style="list-style-type: none"> Barcelona conference presentation HTAi 4th Annual Meeting: oral presentations (2) Health economist completed a 2 week program on infectious disease modeling

Agreement #5: AHTDP (June 1/08 – March 31/12)

Assumes appendices referred to in the agreement are the proposal IHE submitted and all activities come from that document.

Expected Activities	2008/09	2009/10
<p>Structure:</p> <ul style="list-style-type: none"> Projects will be undertaken by affiliated Fellows, on a contract basis or by IHE staff including health economists or others in the (newly established) Decision Analytic Modeling Unit. [note: does not require IHE to create or maintain a separate unit dedicated to the Decision Process] Christa Harstall and Egon Jonsson will manage the grant 	<p>Information Specialists and research associates from the HTA Program are usually responsible for the social and system demographics and technology effects and effectiveness analysis ("S", "T") while the Modeling Unit often prepares the economic evaluation ("E") of the STEP Report.</p>	<p>Core staff is Information Specialists and research associates from HTA Program and health economists from the Decision Analytic Modeling Unit.</p>
<p>Capacity Building [Note: acceptable to build capacity in existing programs]:</p> <ul style="list-style-type: none"> Recruitment of additional expertise Knowledge transfer activities Methodological development <p>These activities will align with the "HTA in Alberta: A Strategic Plan" as well as IHE's programs and their strategic and business plans</p> <ul style="list-style-type: none"> Organize workshops and seminars on established and new methodologies in health economics 	<ul style="list-style-type: none"> Building capacity ties into key element of the strategic plan for HTA in Alberta (see above table) Maintained economic analysis capacity through support of the IHE Decision Analytic Modeling Unit Participation in Consensus Conferences and Innovation Forum (Paying for what works) 	<p>This agreement gives IHE latitude to determine what specific actions it pursues to build capacity; see previous agreement for list</p> <ul style="list-style-type: none"> Maintained economic analysis capacity through support of the IHE Decision Analytic Modeling Unit
<p>Support for Provincial reviews:</p> <ul style="list-style-type: none"> Topics for analysis will be selected from those provided by AHW based on recommendations of the Advisory Committee and agreed upon by both parties; may come from Regions and the Health Services Board of Alberta. Deliverables will consist of 4 to 5 complete health technology reviews (STEP or Level 3 reports) per year or equivalent combinations of Level 1, 2, and/or 3 reports (assumes a level 3 report equals 1.5 level 2 reviews or 2 Level 1 reviews) Findings will be reported to the AHTDP and published as STEP reports; may also be published 	<ul style="list-style-type: none"> Annual report says IHE has agreed to maintain capacity to produce 4 to 5 complete STEP Reports (or the equivalent in Level 1, 2, or 3 reports) per year <p>Outputs:</p> <ul style="list-style-type: none"> 2 new projects (HPV testing; Continuous 	<ul style="list-style-type: none"> Annual report says IHE has agreed to maintain capacity to produce 4 to 5 complete STEP Reports (or the equivalent in Level 1, 2, or 3 reports) per year IHE/AHW agreed to review various types of products and develop criteria for when each would be used to enhance decision-making; proposed framework completed <p>Outputs:</p> <ul style="list-style-type: none"> HPV report submitted (May/09) 3 new projects started + 1 draft workplan

Expected Activities	2008/09	2009/10
in academic journals or presented at conferences. ■ Additional information gathering may be requested and considered as equivalencies to a STEP analysis	subcutaneous insulin infusions (CSII) for the treatment of type 1 diabetes ■ 2 final reports: islet cell transplantation for the treatment of type 1 diabetes; Assisted Reproductive Technologies (report featured in CADTH newsletter)	submitted ■ Insulin Pump Therapy report submitted Nov/09 with a budget impact analysis submitted Jan/10
Partnerships ■ Continue to pursue collaborative initiatives with AB universities, HTA Alliance members	As reported in HTA activities	

Definitions:

Alberta Advisory Committee on Health Technologies – the body established by Alberta Health and Wellness to provide advice with respect to the development and operation of a provincial framework and process for linking evidence to policy decisions respecting the public funding of health services in Alberta, commonly referred to as the **Alberta Health Technologies Decision Process (AHTDP)**, and to make recommendations respecting health technologies and services requiring provincial review.

Findings – any quick notes, technotes, information papers, systematic reviews, meta-analyses, health technology assessments, economic evaluations, HTA initiative papers, or reports and related documents prepared

Health System – Alberta Health and Wellness, regional health authorities in Alberta, provincial boards of health, health profession regulatory bodies, and any other organization involved in the provision of publicly funded health services to residents of Alberta.

Health Technology – drugs, devices, medical and surgical procedures, the purpose of which is to promote, maintain or restore the health of individuals or populations or prevent illness or injury, and the administrative and supportive systems in which health care is delivered.

Appendix J: HTA Program Products

HTA Products by Type and Year, 1996 – 2010

Product	1996/97	1997/98	1998/99	1999/00	2000/01	2001/02	2002/03 ⁸⁵	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	TOTALS
HTA Reports	5	7	6	7	6	2	4	3	2	2	-	1	2	1	48
STEp Reports ⁸⁶									AHTDP Process Started		2	0	1	2	5
TechNote ⁸⁷	8	5	6	2	5	8	5	6	3	6	3	1	Renamed Rapid Assessments		53
Information Paper	3	3	3	2	1	8	2	4	7	7	1	5	5	3	54
Techscan ⁸⁸	Commenced in 1999			45	27	Discontinued in 2001									72
Joint Report	4	-	-	4	4	2	1	-	-	-	-	*			15
Information Requests ^{89, 90}	-	74	89	88	75	92	183	Combined with QwikNotes in 2003					22	*	623
HTA initiative ⁹¹	Commenced in 1999			1	2	2	4	4	2	5	2	Discontinued in 2008			22

⁸⁵ As of this year the information request figure includes all requests (Assessments & QwikNotes)

⁸⁶ STEP reports were introduced in response to a requirement from Alberta Health and Wellness for a new product

⁸⁷ In 2008/09, TechNotes became known as Rapid Assessments: Level 2

⁸⁸ This series was discontinued in December 2000 in an effort to reduce duplication as horizon scanning was then being done by CCOHTA

⁸⁹ This series was discontinued in 2003 and combined with the Qwiknotes series and includes all Qwiknotes – Levels A, B, C, and D

⁹⁰ In 2008/09, Information Requests as a category was re-introduced and included former Levels A, B and C only (≤ 3 days); former Level D is now referred to under Rapid Assessments

⁹¹ This series was commenced in 1999 and discontinued in 2008/09

* Missing data

Product	1996/97	1997/98	1998/99	1999/00	2000/01	2001/02	2002/03 ⁸⁵	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	TOTALS
Newsletter	2	1	2	5	3	2	2	3	2	2	1	*	*		25
Interim Reports ⁹²	-	-	-	-	-	-	4	-	-	-	*	*	*		4
QwikNotes Levels A, B, C, D ⁹³	Combined with the Information Request series in 2003							182	164	200	63 (Level D: 6)	69 (Level D: 6)	Renamed as Information Requests: see footnote #7		678
Rapid Assessments	Commenced in 2008/09 (initially were called TechNotes)												12 level 1	8	20
External Publications	AHFMR HTA Unit									12	9	4	1	3	29
Books	Commenced in 2006/07 when HTA moved to IHE but HTA only contributed as of 2008/09												2	1	3
Comparative Effectiveness Report	Commenced in 2009/10														0
Evidence in Brief (& updates)	Commenced in 2004/05								18	0	4	13	5	9	49
INAHTA Documents													17	6	

⁹² This product was introduced as a result of a request from the Expert Advisory Panel

⁹³ In 2008/09, Level D is now in the category of products called "Rapid Assessments: Level 1"; Levels A, B, and C are now called Information Requests.

Appendix K: HTA Program Publications

[IHE/HTA Publications List](#) (April 1, 2006 – March 15, 2011)

BOOKS

- Classen S, Salmon A, Jonsson E (eds). *Prevention of Fetal Alcohol Spectrum Disorder FASD. Who is Responsible?* Wiley-Blackwell, Weinheim, Germany, March 2011 (see HTA Reports)
- Corabian P, Dennett L. *A Literature Summary on Parkinson Disease*. In: *Parkinson Disease. A Health Policy Perspective*. Ed. W Martin, O Suchowersky, K Kovacs-Burns, E Jonsson. Edmonton AB: 2010 c9, PP 142-77
- Rashiq S, Schopflocher D, Taenzer P, Jonsson E (eds). *Chronic Pain. A Health Policy Perspective*. Wiley-Blackwell, Weinheim, Germany, December 2008
- Ohlsson A, Shah P. *Determinants and prevention of low birth weight: a synopsis of the evidence*, December 2008

REPORTS

Health Technology Assessments

- Ospina M, Moga C, Dennett L, Harstall C. *An overview of systematic reviews on the prevention, diagnosis, and treatment of fetal alcohol spectrum disorder*. In: *Prevention of Fetal Alcohol Spectrum Disorder FASD. Who is responsible?* Ed. S Clarren, A Salmon, E Jonsson. Wiley-Blackwell, Weinheim, Germany: 2011, c2, PP 27-98
- Ospina M, Moga C, Dennett, Harstall C. *A systematic review of the effectiveness of prevention approaches for fetal alcohol spectrum disorder*. In: *Prevention of Fetal Alcohol Spectrum Disorder FASD. Who is responsible?* Ed. S Clarren, A Salmon, E Jonsson. Wiley-Blackwell, Weinheim, Germany: 2011, c2, PP 99-335
- Corabian C, Ospina M, Harstall C. *Treatment for Convicted Adult Male Sex Offenders*, July 2010
- Ospina M, Harstall C, Dennett L. *Sexual exploitation of children and youth over the Internet*, March 2010
- Guo B, Harstall C, Chatterley P. *Means Restriction for Suicide Prevention*, January 2010
- Part I: An overview of national policies/strategies on means restriction, PP 4-24
 - Part II: Preventing intentional overdose – policies/strategies and their effectiveness, PP 25-46
- Guo B, Harstall C. *Exercise testing for the prediction of cardiac events in patients with diabetes*, May 2009
- Bergerman L, Corabian P, Harstall C. *Effectiveness of organizational interventions for the prevention of occupational stress*, January 2009

- Guo B, Corabian P, Harstall C. *Islet transplantation for the treatment of type 1 diabetes – an update*, December 2008
- Corabian P, Harstall C. *The role of rapid fetal fibronectin assay in the management of spontaneous preterm labour*, January 2008
- Moga C, Harstall C. *Air Ambulance Transportation with Capabilities to Provide Advanced Life Support*, February 2008
- Guo B, Harstall C. *Risk assessment tools for predicting recidivism of spousal violence*, January 2008
- Hailey D, Roine R, Ohinmaa O. *Evidence of benefits from telemental health: a systematic review*, October 2007
- Duchscherer G, Guo B. *Safety and efficacy of inhaled nitric oxide in the management of hypoxemic respiratory failure in adults with acute respiratory distress syndrome*, April 2007
- Hailey D, Paquin MJ, Maciejewski O, Harris L, Casebeer A, Fick G, Taschuk P, Fields A. *Teleoncology: applications and associated benefits for the adult population*, April 2007

AHTDP Enhancements

- Dennett L. *Information resources for social and demographic sections of AHTDP: Workshop report*, November 2010
- Scott A, Harstall C. *Utilizing diverse HTA products in the Alberta Health Technologies Decision Process*, March 2010 (Version 1)

STEp Reports

- Guo B, Nguyen T, Ohinmaa A, Harstall C. *Fecal transplantation for the treatment of clostridium difficile-associated disease and/or ulcerative colitis* (resubmitted March 2011)
- Guo B, Corabian P, Yan C, Chuck A, Harstall C. *Bariatric treatments for adult obesity*, December 2010 (in press)
- Guo B, Yan C, Corabian P, Chatterley P, Harstall C. *Insulin Pump Therapy (IPT)*, January 2010 (in press)
- Moga C, Ospina M, Harstall C, Kingston-Reicher J, Chuck A. *Human papillomavirus (HPV) testing in Alberta*, May 2009
- Chuck A, Yan C. *Assistive reproductive technologies: a literature review and database analysis*, January 2009
- Guo B. *Newborn screening for cystic fibrosis*, March 2007 (technical report)
- Schopflocher D, Corabian P, Eng K, Lier D. *The use of the automated auditory brainstem response and otoacoustic emissions tests for newborn hearing screening*, March 2007

Chuck A, Jacobs P, Nguyen T, Ohinmaa A, Verney J. *Evaluation of enzyme immunoassay and immunoblot testing for the diagnosis of syphilis in Alberta*, February 2007

Information Papers

Dennett L, Chatterley T. *HTA on the Net: A Guide to Internet Sources of Information*, April 2011 (12th Ed)

Dennett L, Chatterley T. *HTA on the Net: A Guide to Internet Sources of Information*, June 2009 (11th Ed)

Dennett L, Chatterley T. *HTA on the Net: A Guide to Internet Sources of Information*, June 2008 (10th Ed)

Chan L, Collins S, Dennett L, Varney J. *Health Technology Assessment on the Net: A Guide to Internet Sources of Information*, (Resource Guide), June 2007 (9th Ed)

Chan L, Collins S, Topfer L. *Health Technology Assessment on the Net: A Guide to Internet Sources of Information*, June 2006 (7th Ed)

Hailey D, Jonsson E, Jacobs P. *Comparative Effectiveness: An Overview*, February 2009

Hailey D. *CT and MRI services in Alberta: Comparisons with Other Health Care Systems*, November 2008

Jonsson E, Hailey D, McKenzie E, Harstall C, Grimshaw J, Patten S, et al. *Effective Dissemination of Findings from Research – a Compilation of Essays*, June 2008

Cree M, Lier D. *Routine operative tests – are they necessary?* May 2007 (commissioned by HTA Program, edited by Harstall C in anticipation of a Consensus Conference [that did not occur])

TechNotes

Corabian P, Harstall C. *The Actim™ Partus versus the TLiQ® System as Rapid Response Tests to Aid in Diagnosing Preterm Labour in Symptomatic Women*, February 2008

Moga C, Harstall C. *Hysteroscopic tubal sterilization (Essure™ System)*. AHFMR, June 2006

Corabian P. *Confocal scanning laser ophthalmoscopy and scanning laser polarimetry for early diagnosis of glaucoma*. AHFMR, May 2006

Guo B. *USCOM for Cardiac Output Monitoring*. AHFMR, May 2006

Ambassador Program Reports (Phase 2)

Harstall C, Taenzer P. The Alberta Ambassador Program. *Primary Care Headache Assessment and Management Guideline: Project Charter*, March 2010

Moga C, Scott A. *Ambassador Program guideline for the evidence-informed primary care management of low back pain: background document*, August 2009. Available online only from: <http://www.ihe.ca/research/ambassador-program/--low-back-pain/low-back-pain-guideline/--guideline-documents>

Schuller T. *Survey synthesis of the Alberta HTA Chronic Pain Ambassador Program Evidence-informed Primary Care Management of Low Back Pain Guideline Summary*, April 2008. Available online only from: <http://www.ihe.ca/documents/Guideline%20Feedback%20Results.pdf>

Scott A. *Managing low back pain in the primary care setting: the Know-do gap: Background Paper*. Report for the Ambassador Advisory Committee, September 2007. Available from: <http://www.ihe.ca/documents/Guideline100-pagerJune2010.pdf>

A Summary of the Guideline for Evidence-Informed Primary Care Management of Low Back Pain. Available from: http://www.topalbertadoctors.org/informed_practice/clinical_practice_guidelines/complete%20set/Low%20Back%20Pain/backpain_summary.pdf

Guideline for the Evidence-Informed Primary Care Management of Low Back Pain. Available from: http://www.topalbertadoctors.org/informed_practice/clinical_practice_guidelines/complete%20set/Low%20Back%20Pain/backpain_guideline.pdf

What You Should Know about Chronic Low Back Pain. Patient Handout. Available from: http://www.topalbertadoctors.org/informed_practice/clinical_practice_guidelines/complete%20set/Low%20Back%20Pain/patient_handout_chronic.pdf

What You Should Know about Acute Low Back Pain. Patient Handout. Available from: http://www.topalbertadoctors.org/informed_practice/clinical_practice_guidelines/complete%20set/Low%20Back%20Pain/patient_handout_acute.pdf

Angus, D. *The Alberta HTA Ambassador Program. Dissemination and implementation of evidence informed primary care management of low back pain guideline*, June 2009. Available online only from: <http://ihe.ca/research/ambassador-program/--low-back-pain/low-back-pain-guideline/--dissemination>

Scott A. *Interventions for neuropathic pain* (funded by the Canadian Pain Society):

- Epidural blocks, April 2009
- Nerve blocks, April 2009
- Intravenous infusions, February 2009
- Spinal cord stimulation, October 2008

Ambassador Program Evidence-in-Brief Summaries. Available online only from: <http://www.ihe.ca/research/ambassador-program/--low-back-pain/low-back-pain/evidence-in-brief-summaries>:

- Moga C. Updated Evidence in Brief, *Spinal Manipulative Therapy*, revised April 2009

- Moga C. Updated Evidence in Brief, *Acupuncture*, April 2008
- Moga C. Updated Evidence in Brief, *Exercise Therapy*, April 2008
- Moga C. Updated Evidence in Brief, *Massage Therapy*, December 2008
- Moga C. Updated Evidence in Brief, *Transcutaneous Electrical Nerve Stimulation (TENS)*, December 2008
- Scott A. Updated Evidence in Brief, *Opioids*, August 2007
- Moga C. Updated Evidence in Brief, *Prolotherapy Injections*, August 2007

Moga C, Scott A. *Updates/revisions of the Ambassador Program Generating the Evidence*, May 2006 – August 2009. Available online only from:
http://www.ihe.ca/documents/Generating%20the%20evidence%20in%20brief%20summaries_0.pdf (updates were conducted on May 2006, November 2006, March 2007, August 2007, December 2007, April 2008, August 2008, December 2008, April 2009, August 2009)

Lopatka, H. *Alberta Primary Care Practitioner Knowledge Assessment for Low Back Pain and Headache Management: Summary Report*, September 2007. Available online only from:
<http://www.ihe.ca/documents/Knowledge-Assessment-Survey.pdf>

INAHTA

Islet transplantation for the treatment of Type 1 diabetes – an update, INAHTA Brief, August 2009

Islet transplantation for the treatment of Type 1 diabetes – an update, INAHTA Impact Framework, August 2009

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Exercise testing for the prediction of cardiac events in patients with diabetes, INAHTA Checklist, August 2009

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- Non-invasive ultrasonic cardiac output monitor (trade name USCOM), INAHTA Impact Framework, May 2008
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- Teleoncology: applications and associated benefits for the adult population, INAHTA Checklist, April 2008
- Teleoncology: applications and associated benefits for the adult population, INAHTA Impact Framework, April 2008
- Air ambulance transportation with capabilities to provide advanced life support, INAHTA Brief, February 2008
- Air ambulance transportation with capabilities to provide advanced life support, INAHTA Checklist, February 2008
- Air ambulance transportation with capabilities to provide advance life support, INAHTA Impact Form, February 2008
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- Using fetal fibronectin to diagnose pre-term labour, INAHTA Checklist, February 2008
- Using fetal fibronectin to diagnose pre-term labour, INAHTA Impact Framework, February 2008
- Confocal scanning laser ophthalmoscopy (CSLO) and scanning laser polarimetry (SLP), INAHTA Impact Framework, February 2008
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- Safety and efficacy of inhaled nitric oxide in the management of hypoxemic respiratory failure in adults with acute respiratory distress syndrome, INAHTA Brief, April 2007
- Safety and efficacy of inhaled nitric oxide in the management of hypoxemic respiratory failure in adults with acute respiratory distress syndrome, INAHTA Checklist, April 2007
- Safety and efficacy of inhaled nitric oxide in the management of hypoxemic respiratory failure in adults with acute respiratory distress syndrome, INAHTA Impact Framework, April 2007
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Corabian P. *Interventions and programs for treating adult sex offenders*, July 2008

Dennett L. *Treatment and Assessment for Online Sexual Exploitation*, June 2008

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- Chatterley T. *Statins*, March 2008
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- Chuck A. *Cost – effectiveness of 21 alternative cervical cancer screening strategies*. Value in Health 2010;13(2):169-79.
- Scott NA, Moga C, Harstall C. *Managing low back pain in the primary care setting: the know-do gap*. Pain Res Manag. 2010 Nov-Dec;15(6):392-400.
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Appendix L: Citation Tracking

Citation Tracking for HTA and STEP Reports (as of February 2/10)

Report Title	Search Method	Citation Source	Details
Exercise Testing for the Prediction of Cardiac Events in Patients with Diabetes	Google	NHS Evidence	NHS Evidence - Diabetes - Exercise testing for the prediction of ... 15 Jul 2009 ... Exercise testing for the prediction of cardiac events in patients with diabetes. Institute of Health Economics (IHE). 2009 ... www.library.nhs.uk/Diabetes/ViewResource.aspx?resID=329405 - Cached
		As Part of the Canadian Electronic Library	Exercise testing for the prediction of cardiac events in patients ... Exercise testing for the prediction of cardiac events in patients with diabetes [electronic resource] /Bing Guo, Christa Harstall. ... algoma.concat.ca/opac/extras/unapi?id=tag:algoma...ca... - Cached —as part of the Canadian electronic library
		Canada Online Catalogue	This report on Exercise Testing for the Prediction of Cardiac Events in Patients with Diabetes examines the clinical research evidence on the prognostic ... kce.docressources.info/opac/index.php?lvl=categ_&see&id=859 - Cached
		CRD*	Exercise testing for the prediction of cardiac events in patients ... 15 Jul 2009 ... Exercise testing for the prediction of cardiac events in patients with diabetes. Institute of Health Economics (IHE). 2009 ... www.crd.york.ac.uk/CRDWeb/ShowRecord.asp?ID=32009100275
		Alberta Centre for Active Living blog	Physical Activity Information Round-Up: February 2010 Exercise Testing for the Prediction of Cardiac Events in Patients with Diabetes To assess research evidence on the safety and prognostic value of exercise ... blog.centre4activeliving.ca/2010_02_01_archive.html - Cached
		Facebook	18 August 2009 - Exercise testing for the prediction of cardiac ... - [Translate this page] 18 Ogos 2009 ... 18 August 2009 - Exercise testing for the prediction of cardiac events in patients with diabetes. oleh NHS Evidence - diabetes pada pada ... ms-my.facebook.com/note.php?note_id=243235420262 - Malaysia
		Finnish Office for Health Technology Assessment	Ohtanen Kliininen rasituskoe diabetesta sairastavien potilaiden ... - [Translate this page] 22. syyskuu 2009 ... Exercise testing for the prediction of cardiac events in patients with diabetes Ohtanen-tunniste: 2522. Julkaisija: IHE, Kanada, 2009 ... lib.stakes.fi/ohtanen/tarkastele.aspx?id=2522 - Cached - Similar
	OCLC	No libraries have a copy	
Islet Transplantation for the Treatment of	Google	NHS Evidence	NHS Evidence - Diabetes - Islet transplantation for the treatment ... 31 Mar 2009 ... Islet transplantation for the treatment of Type 1 diabetes- an update. Institute of Health Economics (IHE). IHE Report. 2008 ...

Report Title	Search Method	Citation Source	Details
Type 1 Diabetes - An update			www.library.nhs.uk/Diabetes/ViewResource.aspx?resID=329131 – Cached
		TRIP	31 Mar 2009 ... Å Islet transplantation for the treatment of Type 1 diabetes- an update.Å Institute of Health Economics (IHE).Å IHE Report. ... v2009.tripdatabase.com/.../914011-Islet-transplantation-for-the-treatment-of-Type-1-diabetes--an-update - Cached
		AETNA	Pancreas Transplantation Alone (PTA) and Islet Cell Transplantation Guo B, Corabian P, Harstall C. Islet transplantation for the treatment of type 1 diabetes: An update. IHE Report. Edmonton, AB: Institute of Health ... www.aetna.com/cpb/medical/data/600_699/0601.html - Similar
		Search Medica	islet transplantation - Professional Medical Resources—Medical Search Engine Islet transplantation for the treatment of type 1 diabetes: an update Click here to go to the complete record ... Bibliographic detailsGuo B Corabian P ... www.searchmedica.co.uk/search.html?q=islet...cq...lp... – Cached (medical lit search engine)
		Personal Blog	Recent additions to NHS Evidence - #diabetes including @DiabetesUK ...—Blog about what is iin NHS 5 Nov 2009 ... Islet transplantation for the treatment of type 1 diabetes: an update. • Long-acting insulin analogues for diabetes mellitus: meta-analysis ... jobrodie.posterous.com/recent-additions-to-nhs-evidence-diabetes-inc – Cached
	OCLC	11 libraries own this	University of Alberta Alberta Govt Library Grant Macewan University University of Victoria, McPherson Library Vancouver Island University University of Manitoba University of New Brunswick, Fredericton University of New Brunswick, Saint John Memorial University, Newfoundland, Elizabeth II Lakehead University
Screening Newborns for Cystic Fibrosis	OCLC Classify		OCLC Classify -- an Experimental Classification Service Screening newborns for cystic fibrosis by Guo, Bing. Institute of Health Economics, 19, 2, 2007, 2007. Screening for postnatal depression within the Well ... classify.oclc.org/classify2/ClassifyDemo?ident=fst01014635...0...
	CARNA Library		The latest books, documents and audio-visual titles acquired by the CARNA Library.http://nurses.ab.ca/carna-admin/Uploads/AB_RNJan08.pdf
		Finnish Office for HTA	http://lib.thl.fi:2345/http://lib.thl.fi:2345/lib4/src?PBFORMTYPE=01002&TITLEID=41838&SQS=1:FIN:1::6:50::HTML&PL=0

Report Title	Search Method	Citation Source	Details
	OCLC	15 libraries own this	University of Alberta Alberta Government Library Grant MacEwan University Simon Fraser University Thompson Rivers University University of Victoria, McPherson Library Vancouver Island University University of New Brunswick, Fredericton University of New Brunswick, Saint John Memorial University, Newfoundland, Elizabeth II Dalhousie University, Killam Lakehead University Trent University University of Ottawa McGill University
Human papillomavirus (HPV) Testing in Alberta	Google	McGill Dept. of Oncology Annual Report	Annual Report 2008/2009 File Format: PDF/Adobe Acrobat - Quick View Technologies Decision Process on Human papillomavirus (HPV) Testing in Alberta . (2009). External reviewer, book project, Springer Science Publishers, ... www.medicine.mcgill.ca/.../Dept%20Oncol%20Annual%20Report%202008-2009%20For%20Website.pdf - Similar
	OCLC	No libraries own this report	
Assistive Reproductive Technologies: a Literature Review and Database Analysis	Google	Alberta Perinatal Health Program	Alberta Perinatal Health Program (APHP) - Resources Institute of Health Economics Report, Assistive Reproductive Technologies: A ... www.aphp.ca/publications_links_pub.html - Cached - Similar
		NHS Evidence	NHS Evidence - Women's health - Assistive reproductive ...23 Dec 2008 ... Assistive reproductive technologies: a literature review and database analysis. Edmonton: Institute of Health Economics (IHE) 2009 ... www.library.nhs.uk/womenshealth/ViewResource.aspx?resID... - Cached
		CADTH	CADTH: Recent HTAs and Canadian Guidelines 17 Nov 2009 ... Assistive Reproductive Technologies: A Literature Review and Database Analysis. Institute of Health Economics, ... www.cadth.ca › ... › Issue 11- August 2009 - Cached - Similar
		Finnish Office for HTA	Ohtanen Assistive reproductive technologies: a literature review ... - [Translate this page] Assistive reproductive technologies: a literature review and database analysis Ohtanen-tunniste: 2464. Julkaisija: IHE, Kanada, 2009 ...
	OCLC	11 libraries own	University of Alberta

Report Title	Search Method	Citation Source	Details
		this	Alberta Government Library Grant MacEwan University University of Victoria, McPherson Library University of New Brunswick, Fredericton University of New Brunswick, Saint John Memorial University, Newfoundland, Elizabeth II Lakehead University, Orillia Campus Library Lakehead University Ryerson University McGill University
Sexual Exploitation of Children and Youth Over the Internet: A Rapid Review of the Scientific Literature	Google	York University Library Catalogue	Search Results York University Libraries Sexual exploitation of children and youth over the internet a rapid review of the scientific literature. By: Ospina, Maria; Other Authors: Harstall, ... www.library.yorku.ca/find/Search/Results?lookfor=%22... – Cached
		NHS Evidence	NHS Evidence - Women's health - Centre for Reviews and Dissemination ... Sexual exploitation of children and youth over the internet: a rapid review of the scientific literature • Sexual functioning after treatment for ... www.library.nhs.uk/WOMENSHEALTH/ViewResource.aspx?resID...y
		Finnish Office for HTA	Ohtanen Haku - [Translate this page] Sexual Exploitation of Children and Youth Over the Internet: A Rapid Review ...lib.stakes.fi/ohtanen/haku.aspx?HakutulosSarake=Vuosi...6 – Cached
	OCLC	11 libraries own this	University of Alberta Alberta Government Library Grant MacEwan University Simon Fraser University University of Victoria, McPherson Library Vancouver Island University University of Manitoba Memorial University, Newfoundland, Elizabeth II Carlton University Lakehead University New York Academy of Medicine
Using Fetal Fibronectin to Diagnose Pre-term Labour	Google	CADTH	Title: Fetal Fibronectin Testing for Pre-Term Labour: Clinical and ... File Format: PDF/Adobe Acrobat - Quick View 24 Jun 2008 ... Corabian P, Harstall C. Using fetal fibronectin to diagnose pre-term labour. Edmonton: Institute of Health Economics; 2008. Available: ... www.cadth.ca/.../Fetal%20Fibronectin%20Testing%20for%20Pre-Term%20Labour%20Clinical%20and%20Cost-

Report Title	Search Method	Citation Source	Details
			Effectiveness.pdf
		AETNA	Fetal Fibronectin and Salivary Estriol Testing for Preterm Labor Corabian P, Harstall C. Using fetal fibronectin to diagnose pre-term labour. IHE Report. Edmonton, AB: Institute for Health Economics (IHE); January 2008. ...AETNA
		Royal College of Obstetricians and Gynecologists	Fetal fibronectin testing - query bank Royal College of ... 29 Sep 2010 ... Using fetal fibronectin to diagnose pre-term labour. Edmonton: Institute of Health Economics. 2008; Map of Medicine. ... www.rcog.org.uk > ... > Guidelines > Search for a guideline – Cached
		NHS Evidence	NHS Evidence - Women's health - Using fetal fibronectin to ... 1 Sep 2008 ... Using fetal fibronectin to diagnose pre-term labour. Institute of Health Economics (IHE). IHE Report. 2008 StatusThis is a bibliographic ... www.library.nhs.uk/WOMENSHEALTH/ViewResource.aspx?resID...
		CIGNA	Tests for the Evaluation of Preterm Labor - CIGNA MEDICAL COVERAGE ... File Format: PDF/Adobe Acrobat - Quick View Using Fetal Fibronectin to Diagnose Pre-term Labour. 2008 Jan. Accessed Jun 12, 2009. Available at URL address: http://www ... www.cigna.com/.../mm_0099_coveragepositioncriteria_tests_for_the_evaluation_of_preterm_labor.pdf - Similar
		York University Library Catalogue	Browse eResources by title - R York University Libraries Other titles: Using fetal fibronectin to diagnose pre-term labour. Type: E-Book info; Online Access: Go to this resource [Ebrary (Canadian Electronic ... www.caml.yorku.ca/e/search/atoz?q=R&pg=85 – Cached
		Personal Blog	Fetal Fibronectin - JEVUSKA - [Translate this page] using fetal fibronectin to diagnose pre-term labour institute of health ... www.jevuska.com/topic/fetal+fibronectin.html - Indonesia – Cached
		Cuban Health Search Engine	Medicina Basada en Evidencia - Localizador de Información en Salud ... - [Translate this page] Go to Using Fetal Fibronectin to Diagnose Pre-term Labour • Using Fetal Fibronectin to Diagnose Pre-term Labour El Instituto de Economía de la Salud, ... liscuba.sld.cu/SPT--AdvancedSearch.php?Q=Y&F22...Basada... – Cached
		TRIP	Receipt of guideline-recommended follow-up in older colorectal Evidence Note 23 : Tonsillectomy for recurrent bacterial tonsillitis • Using fetal fibronectin to diagnose pre-term labour • Air ambulance with advanced ... www.tripdatabase.co.uk/doc/latest?endId=754795 – Cached
		Finnish Office for HTA	The role of rapid fetal fibronectin assay in - THL -kokoelmat ... - [Translate this page] Huomautus: Kannessa: Using fetal fibronectin to diagnose pre-term labour. Myös elektronisena julkaisuna Internetissä.

Report Title	Search Method	Citation Source	Details
	OCLC	1 library owns this	Asiasanat: OBSTETRIC LABOR – (Union Category): Danish Union Cat & Danish National Bibl
Treatment for Convicted Adult Male Sex Offenders	Google	Report watch blog:	Report watch: 22 October 2010 25 Oct 2010 ... Treatment for Convicted Adult Male Sex Offenders evaluates the effectiveness of psychotherapy and pharmacotherapy interventions delivered ... watchhealth.blogspot.com/2010/10/v-behaviorurldefaultvmlo.html – Cached
		U of A Library	Alberta Government Library - Telus Plaza North - University of ... Treatment for convicted adult male sex offenders [electronic resource] / prepared by Paula Corabian, Maria Ospina, Christa Harstall. Edmonton, Alta. ... www.library.ualberta.ca/newbooks/library/index.cfm?Libraryfilter... – Cached
		SBU Report	Rapporten som pdf. - Projektgrupp, Bindningar och jäv - [Translate this page] File Format: PDF/Adobe Acrobat - Quick View 10 jan 2010 ... Corabian P, Ospina M, Harsta C. Treatment for convicted adult male sex offenders. Institute of Health Economics, Edmonton AB, Canada. ... sbu.se/upload/.../Content0/.../SBU-rapport_overgrepp_barn_2010-01-10.pdf
	OCLC	4 libraries own this	University of Alberta Alberta Government Library Grant Macewan University Memorial University, Newfoundland, Elizabeth II
Effectiveness of Organizational Interventions for Occupational Stress	Google	WHO	WHO/Europe How effective are organization-level interventions in ... Effectiveness of organizational interventions for the prevention of workplace stress. Bergerman L, Corabian P, Harstall C. Canada, Institute of Health ... www.euro.who.int › ... › HEN summaries of network members' reports
			Statement by the representative of the WHO staff associations File Format: PDF/Adobe Acrobat - Quick View 4 Jan 2011 ... 1 IHE report: effectiveness of organizational interventions ... apps.who.int/gb/ebwha/pdf_files/EB128/B128_ID1-en.pdf
		Pan American Health Organization Tweet	Twitter / PAHO/WHO Equity: Effectiveness of Organizat ... Effectiveness of Organizational Interventions for the Prevention of Workplace Stress http://bit.ly/9kAt6c 9:35 AM Jun 16th, 2010 via web Retweeted by 1 ... twitter.com/eqpaho/status/16319464137 – Cached
		CRD	Effectiveness of organizational interventions for the prevention ... 23 Dec 2008... http://www.ihe.ca/publications/library/2009/effectiveness-of-organizational-interventions-for-the-prevention-of-workplace-stress/ ... www.crd.york.ac.uk/crdweb/ShowRecord.asp?LinkFrom=OAI... – Cached

Report Title	Search Method	Citation Source	Details
		Novanet-Dalhousie Catalogue	NOVANET Catalogue - Holdings Effectiveness of organizational interventions for the prevention of workplace stress[electronic resource] /prepared by Lisa Bergerman, Paula Corabian, ... aleph1.novanet.ns.ca/F/?func=item-global&doc... – Cached
		CADTH	CADTH: Recent HTAs and Canadian Guidelines 17 Nov 2009 ... Effectiveness of Organizational Interventions for the Prevention of Workplace Stress. Institute of Health Economics, ... www.cadth.ca › ... › Issue 11- August 2009 - Cached – Similar
		Alberta Addiction and Mental Health Research Partnership Program	Priority Theme Publications - Mental Health Research Effectiveness of Organizational Interventions for the Prevention of Workplace Stress. This report represents the collaborative effort of the Alberta Health ... www.mentalhealthresearch.ca/Publications/.../Pages/default.aspx - Cached
		Canadian School Health Knowledge Network	Knowledge Matters June 2010 - Canadian School Health 29 Oct 2010 ... Report (2009) Effectiveness of Organizational Interventions ... www.canadianschoolhealth.ca/page/Knowledge+Matters+June+2010 – Cached
		Dalhousie Library Catalogue:	Books - Health and Human Performance - Subject Guides at Dalhousie ...22 Oct 2010 ... Effectiveness of organizational interventions for the prevention of workplace stress - Lisa Bergerman, Paula Corabian, Christa Harstall. ...dal.ca.libguides.com/content.php?pid=506&sid=220607
		Occupational Health and Safety Agency for Healthcare in BC (powerpoint)	Best Practices for Return-to-Work/ Stay-at-Work Interventions for ... File Format: PDF/Adobe Acrobat - Quick View Effectiveness of organizational interventions for the prevention of workplace stress. Edmonton, AB: Institute of Health Economics (IHE). ... www.ccohs.ca/products/webinars/best_practices_rtw.pdf
		School Health Insider	June 21 - 27, 2010 - School Health Insider 29 Aug 2010 ... Report (2009) Effectiveness of Organizational Interventions for the Prevention of Workplace Stress (Canada) http://is.gd/cRAa0 ... www.schoolhealthinsider.org/page/June+21+-+27,+2010 – Cached
		MOHLTC Ministry of Health and Long Term	Annual Health Systems Trends Report Rapport annuel sur les tendances des systèmes File Format: PDF/Adobe Acrobat - Quick View 1 Nov 2010 ... 191 Institute of Health Economics. (2009). Effectiveness of organizational interventions for the prevention of

Report Title	Search Method	Citation Source	Details
		Care Ontario-	workplace stress. ... www.eriectclairhin.on.ca/WorkArea/showcontent.aspx?id=9752
		Finnish Office for HTA	ACMTS: Rapports d'ETS récents - [Translate this page] 17 nov. 2009 ... Effectiveness of Organizational Interventions for the Prevention of Workplace Stress. Institute of Health Economics, ... www.cadth.ca > ... > Numéro 11- août 2009 – Cached
		Information for Practice Blog	information for practice: Monthly Archives 29 Dec 2010 ... Effectiveness of organizational interventions for the prevention of workplace stress. Workplace mental health has, for several years, ... blogs.nyu.edu/socialwork/ip-archive/2009/07/ - Cached (IP is sponsored by the New York University School of Social Work and the Division of Social Work and Behavioral Science, Mount Sinai School of Medicine
		McMaster Library Catalogue	Library Catalogue - McMaster University Effectiveness of organizational interventions for the prevention of workplace stress [electronic res... By: Bergerman, Lisa. Published: Edmonton, Alta. ... libcat.mcmaster.ca/index.jsp?sid=12ACA91D429B&Tab... – Cached
		York University Library Catalogue	Browse eResources by title - E York University Libraries Effectiveness of organizational interventions for the prevention of workplace stress. Type: E-Book info; Online Access: Go to this resource [Ebrary ... www.caml.yorku.ca/e/search/atoz?q=E&t=E-Book&pg=11 – Cached
	OCLC	11 libraries own	University of Alberta Alberta Government Library Grant MacEwan University University of Victoria, McPherson Library Vancouver Island University University of Manitoba Mount Allison University University of New Brunswick, Fredericton University of New Brunswick, Saint John Memorial University, Newfoundland, Elizabeth II Lakehead University
Screening Newborns for Hearing	Google	NHS	Link to the full evidence update here, Portable - Annual Evidence ... File Format: PDF/Adobe Acrobat - Quick View (3) Corabian, P., Eng, K., Lier, D., and Schopflocher, D. Screening newborns for hearing: the use of the automated auditory brainstem response and ... www.library.nhs.uk/SpecialistLibrarySearch/Download.aspx?resID=281954

Report Title	Search Method	Citation Source	Details
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