Evaluation of a telepsychiatry pilot project

Sandra Doze, Jennifer Simpson

November 1997
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Requests for further details of the study and use of the data collection instruments should be sent to the authors at P.O. Box 1000, Ponoka, Alberta T4J 1R8. Telephone (780) 783-7668, fax: (780) 783-7780.


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Foreword

This report provides details of a telepsychiatry pilot project undertaken by the Provincial Mental Health Advisory Board-Central Alberta (PMHAB) in cooperation with four Regional Health Authorities. It supplements an earlier report issued by the Board describing the pilot project evaluation and has been prepared to assist in dissemination of the findings and to provide further details of the assessment. The authors of the report were participants in the AHFMR’s Swift and Efficient Application of Research in Community Health (SEARCH) Program.

The earlier report is available from the PMHAB at PO Box 1000, Ponoka, Alberta T4J 1R8. Permission to use the data collection forms in Appendix B and further details of the evaluation should be sought from the authors at that address.
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Summary

- A Telepsychiatry Pilot Project linking Alberta Hospital Ponoka and five general hospitals was implemented in June 1996. The Provincial Mental Health Advisory Board worked in partnership with four Regional Health Authorities in the selection of sites, development of procedures and evaluation.

- Information was collected through questionnaires administered to consumers, service providers, and psychiatric consultants. Additional information was obtained by interviews, site visits, logs and telephone interviews with consumers.

- Sites were phased in over a three-month period. In total there were 109 consultations, of which 19 were for repeat consumers. Referrals were received from 31 physicians. Seventy-five percent of consultations were to general psychiatry and the remainder to a psychogeriatrician or a psychiatrist specializing in substance abuse.

- Utilization was not equal across the sites in Central Alberta and did not appear to be related to distance from other psychiatric services.

- Issues that may have affected the number of referrals were the level of involvement during the planning process of physicians and community mental health professionals, the type and timing of marketing, perceived need for the service by physicians, comfort and satisfaction with usual referral patterns, and skepticism regarding the new technology.

- The most common reason for referral was the management of a previously established diagnosis. Fifty-five percent of all consumers had a history of mental illness longer than one year. Those with a history of mental illness of less than one year included nine from 14 to 18 years old and four with post partum depression.

- The most prevalent diagnosis was depression (40%). Referral forms indicated that 32% of all consumers were considered to have suicide ideation or suicidal intent at the time of referral.

- Users indicated that the technology was considered easy to use, and the quality of the sound and picture were appropriate for the application.

- Survey data suggested strong acceptance and satisfaction by consumers, service providers, and psychiatric consultants. Benefits perceived by consumers included timeliness of service, service in their own community with no travel-related stressors, decreased work time loss for self or family, and positive outcomes as a result of psychiatrist expertise.
• A cost analysis indicated that at eight consultations per week the service would be as cost effective as providing a traveling psychiatrist ($620 per consultation).

• Comments received from consumers through telephone interviews revealed both the urgency of the need for treatment and the value they placed on the service. Service providers saw telepsychiatry as a significant asset to their ability to provide mental health services in their community.

• Information gathered during this evaluation suggests that the use of video conferencing equipment for psychiatric consultations should be considered when planning for an integrated community-based mental health service. In addition, the use of video conferencing technology should be considered for other mental health applications.
Introduction

In February 1996, the Provincial Mental Health Board approved a pilot project which would see the Provincial Mental Health Advisory Board - Central Alberta (PMHAB) enter into a partnership with five sites to provide psychiatric consultation through video conferencing technology. The first site became operational in June 1996 (see Appendix A for chronology).

The evaluation was developed and implemented in parallel with the overall project. At the onset of the project, the PMHAB placed the evaluation’s emphasis on the collection of information from the consumers using the system. The Board viewed the project as part of the continuing effort to develop consumer-focused, community-based care systems.

The provision of ongoing information for the Central Area Management Team and those involved in implementing the project was also necessary. This included the Regional Health Authorities through their participation on the Evaluation Advisory Committee.

The Telepsychiatry Pilot Project can be viewed as one of a number of strategies undertaken by the PMHAB to work toward further integration of the health and mental health service delivery systems. The Project Parameters document prepared by the Board outlined the expected results of the Telepsychiatry Pilot Project as:

- improved access to psychiatrists;
- reduced delay in accessing psychiatrists;
- enhanced involvement of consumers in discharge planning and follow-up;
- improved ability to communicate with family physicians, consumers, and communities;
- reduced staff and consumer travel time;
- medication can be reviewed in the community;
- alternative interventions to hospitalization may be tried;
- increased educational opportunities;
- supportive follow-up after discharge.
Psychiatric services in central Alberta

Prior to the Telepsychiatry Pilot Project, individuals requiring psychiatric assessment or consultation in Central Alberta had three options. They could:

- receive service through the community mental health clinics;
- seek help through private practitioners; or
- access inpatient services at either a general hospital or Alberta Hospital.

The largest source of psychiatric staffing for the region is Alberta Hospital, Ponoka. Psychiatric services at the hospital are provided through a combination of full time, locum and part time psychiatrists. Alberta Hospital Ponoka also offers a specialized Brain Injury Rehabilitation Program with resources unique to Central Alberta. The increasing number of admissions at the hospital means that extension of service to the community for these psychiatrists was not an option. At the same time, the distances involved made travel to Alberta Hospital Ponoka a burden to consumers.

Community mental health clinic psychiatric services were provided by appointment (clinic hours 0830 to 1630 hours, Monday through Friday). Psychiatrists visited on a predetermined schedule, approximately once or twice a month, and saw a number of consumers per visit. In the 1996 calendar year, psychiatrists offering services through the community mental health clinics had a total of 3,076 face-to-face contacts for a total of 1,809 hours. These contacts are for both consultations (lasting up to one hour) and for ongoing treatment/maintenance (approximately 20 minutes).
Planning and organization

Physicians’ input

In order to try to obtain some indication of referral patterns and demand for psychiatric services, family doctors were surveyed during the evaluation period. In total 42 responses were received (Table 1).

On average, physicians indicated they referred about two patients per month for a psychiatric consultation, with the most common reason for referral being depression. It appeared that physicians wait longer for a referral to a psychiatrist outside the region than for a referral to a local community mental health clinic.

At the time of this survey physicians were also asked to rate the availability of mental health services prior to telepsychiatry; 46.5% of all physicians rated the availability of mental health services as fair.

Table 1: Percentage* of physicians reporting a wait time of over 1 month

<table>
<thead>
<tr>
<th>Location</th>
<th>Number reporting that they referred patients</th>
<th>Wait time over 1 month</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local mental health clinics</td>
<td>35 (83%)</td>
<td>10 (29%)</td>
</tr>
<tr>
<td>Edmonton</td>
<td>12 (29%)</td>
<td>7 (58%)</td>
</tr>
<tr>
<td>Calgary</td>
<td>8 (19%)</td>
<td>5 (63%)</td>
</tr>
<tr>
<td>Alberta Hospital Ponoka or Edmonton</td>
<td>25 (60%)</td>
<td>0</td>
</tr>
<tr>
<td>Local hospital</td>
<td>13 (31%)</td>
<td>1 (8%)</td>
</tr>
</tbody>
</table>

* n=42

Site selection

Factors that featured prominently in the discussion of site selection included:

- Distance from Edmonton, Calgary or Ponoka.
- Attitude of the community towards innovation. Wainwright had previously participated with Alberta Hospital Ponoka in a pilot project which established community advisory committees. Drumheller had already established a significant mental health presence in their general hospital.
- Demand -- Qualitative assessment of mental health needs. The western regions of the province have historically had significant unmet need for mental health services.
- Equity -- Several of the regions attempted to ensure that telepsychiatry was consistent with overall resource allocation.

Details of the selected sites are shown in Table 2.
Table 2: Population and travelling distance

<table>
<thead>
<tr>
<th></th>
<th>Drumheller</th>
<th>Drayton Valley</th>
<th>Edson</th>
<th>Wainwright</th>
<th>Wetaskiwin</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Population</strong></td>
<td>7,958</td>
<td>11,075</td>
<td>11,247</td>
<td>6,362</td>
<td>14,942</td>
</tr>
<tr>
<td>Local physicians</td>
<td>13</td>
<td>7</td>
<td>8</td>
<td>5</td>
<td>21</td>
</tr>
<tr>
<td>Distance from a</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>major city (km)</td>
<td>138</td>
<td>200</td>
<td>214</td>
<td>206</td>
<td>80</td>
</tr>
<tr>
<td>(Calgary)</td>
<td>(Edmonton)</td>
<td>(Edmonton)</td>
<td>(Edmonton)</td>
<td>(Edmonton)</td>
<td></td>
</tr>
</tbody>
</table>

* Source: Alberta Health registration data, November 1996

**Organization**

The leadership for the Telepsychiatry Pilot Project was provided by the Area Director, PMHAB. Throughout the initial planning and site selection, liaison was through the Chief Executive Officers of the various Regional Health Authorities (RHAs). The day-to-day administration, coordination and marketing of the project was delegated to a three member Implementation Team. Members of the Implementation Team were selected for their complementary skills.

**Referral process**

A monthly schedule of available psychiatrists was prepared by Alberta Hospital Ponoka.

A Referral for Consultation form was developed by the Implementation Team after the first month of the project. Information collected on the form included: presenting complaint and reason for referral; past psychiatric history; current medication; current medical condition; social/family background; family psychiatric history. Referral forms were faxed directly to Alberta Hospital Ponoka or to the site coordinators who in turn faxed them to Alberta Hospital Ponoka.

The referring physician contacted the RHA which then contacted Alberta Hospital Ponoka to book a time. The confirmation of the appointment was sent to the referring physician.

**Project implementation**

Alberta Hospital Ponoka began searching and testing available equipment 18 months prior to receiving approval for tender. This experience allowed them to proceed quickly once approval was granted. Full operation of the five sites was completed within six months of the receipt of tender.

**Service provision**

All participating RHA sites added telepsychiatry to their existing programs; no additional staff or resources were allocated. Depending on the region, the Site Coordinator was a nursing manager, administrator, service clerk, mental health nurse or mental health counselor. The site coordinators and others involved maintained previous responsibilities.
Evaluation study

Objectives

The evaluation objectives were:

- To recount the activities and strategies used in the implementation of telepsychiatry.
- To identify the impact on the consumers and service providers of the Telepsychiatry Pilot Project and video conferencing technology.
- To identify the costs and savings related to the Telepsychiatry Pilot Project.
- To document any external factors which may have influenced the project.
- To make ongoing recommendations on the planning and implementation of the Telepsychiatry Pilot Project.
- To identify opportunities for further development of video conferencing in mental health service delivery.

Methodology

Survey instruments were developed by the co-evaluators and were reviewed and approved by the Evaluation Advisory Committee (EAC), which met five times during the project.

Telephone interview questions were developed in consultation with the site coordinators and Implementation Team. Telephone interviews were pretested by each evaluator and revised accordingly.

Questionnaires to psychiatric consultants, service providers, and consumers were reviewed by the EAC after one month of utilization. Follow-up telephone interviews were conducted subsequent to receipt of consumer questionnaires. Several of the survey instruments are included in Appendix B.

The Project Evaluator was responsible for the distribution of the forms to the site, and for follow-up. If evaluations were not received within two weeks, then a follow-up request was sent. The master list of consultations was maintained by the Alberta Hospital Ponoka.

Survey instruments included:

- Service Provider Questionnaire.
- Consultant Questionnaire.

The site provided each service provider with an evaluation form.
The site coordinator provided the psychiatrist with the Consultant Questionnaire.

- Consumer Questionnaire.

The site coordinator provided each consumer involved in a session with a questionnaire and covering letter.

- Follow-up Telephone Interview.

Consumers were requested to indicate in writing whether they would be interested in a telephone interview. Individuals that signed an agreement were contacted by one of three separate interviewers. Interviewers consisted of the Project Evaluators and one other interviewer.

- Referral Physicians Survey.

At the request of the PMHAB, surveys were constructed for those general practitioners that had referred to the Telepsychiatry and those that had not. Questionnaires were sent to the site coordinators who then distributed them. Responses were returned to the Project Evaluator.

Operational Parameters:

- Equipment (Technology) Evaluation Questionnaire.

Questions that assessed the technology were prepared based on questions used in prior equipment assessment surveys. The site coordinator placed the Technology Assessment Cards in the Telepsychiatry room and urged anyone using the equipment for any reason to complete a card and mail it to the Project Evaluator. Equipment problems were reported to the Implementation Team immediately.

- Workload Log.

In an attempt to collect information on the amount of time expended by the site coordinators and the frequency of equipment failures, site coordinators were requested to complete a workload measurement for two months.

**Data collection**

Collecting evaluation data from mental health consumers presents some unique challenges that can be attributed both to their illnesses and their social/economic conditions.

A total of 63% of all consumers who participated completed evaluation forms. Fifty-two percent of those who participated agreed to a telephone interview but 14 were unable to be contacted. A total of 32 interviews were completed.
Results

Utilization of telepsychiatry

Seven psychiatrists provided service, one of them being responsible for 30% of all consultations. The most common reason for repeat consultations was to assist with a previously diagnosed condition. This was also the major reason for referral as identified by the psychiatrist. The second most common reason for referral was to establish a diagnosis. Other reasons for referral included management of behavior, medication consultation, consumer education, post-discharge follow-up, and pre-admission screening. Eleven individuals (12%) were admitted to Alberta Hospital Ponoka following telepsychiatry consultation.

Referrals were received from 31 general practitioners (Table 3). Of the physicians who made referrals, 19 (61%) referred more than one consumer.

Table 3: Population and numbers of referring physicians per centre

<table>
<thead>
<tr>
<th></th>
<th>Drumheller</th>
<th>Drayton Valley</th>
<th>Edson**</th>
<th>Wainwright</th>
<th>Wetaskiwin</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population*</td>
<td>7958</td>
<td>11,075</td>
<td>11,247</td>
<td>6,362</td>
<td>14,942</td>
</tr>
<tr>
<td>Number of referring physicians (n=31)</td>
<td>10</td>
<td>3</td>
<td>10</td>
<td>2</td>
<td>6</td>
</tr>
</tbody>
</table>

* Source: Alberta Health Registration Data - November 1996
** There are 8 physicians in Edson; two consumers were referred by physicians from other RHAs.

Between June, 1996 and March, 1997, there were a total of 109 consultations serving 90 consumers. Data shown in Figure 1 suggest that after the Pilot Project, numbers of consultations may level out. Table 4 shows the type of service most accessed was for general psychiatry.
Figure 1: Consultations by month

![Graph showing consultations by month]

Table 4: Type of service accessed

<table>
<thead>
<tr>
<th>Service</th>
<th>No. of consultations</th>
</tr>
</thead>
<tbody>
<tr>
<td>General psychiatry</td>
<td>80</td>
</tr>
<tr>
<td>Psycho-geriatric</td>
<td>13</td>
</tr>
<tr>
<td>Substance abuse</td>
<td>13</td>
</tr>
<tr>
<td>Brain injury rehabilitation</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>107</td>
</tr>
</tbody>
</table>

*Note: data missing for 2 consultations

Consumer profiles

Most consumers were between the ages of 41 and 64 (range 14 to 91); 28% were males and 72% were females.

Information on the consumers was provided by the referring physicians on the “Referral for Consultation” form. Of the 90 consumers referred, 57 were identified as having a history of psychiatric illness, 30 had suicidal ideation or intent, and 21 were identified as being abusive to others or subject to violence, anger and rage. The most prevalent provisional diagnosis was Depression (40%), with the next most prevalent being Schizophrenia and Anxiety/Panic Disorders (both 9%) (Table 5).
Table 5: An outline of consumer characteristics

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>History of hospitalization</td>
<td>Inpatient at the time of the consultation</td>
<td>22%</td>
</tr>
<tr>
<td></td>
<td>Previous history of hospitalization for mental health problems</td>
<td>41%</td>
</tr>
<tr>
<td>Population at risk</td>
<td>Referral physician indicated suicidal intent or ideation</td>
<td>33%</td>
</tr>
<tr>
<td>History of mental illness</td>
<td>History of mental illness for over one year</td>
<td>55%</td>
</tr>
<tr>
<td>Most common reason for referral</td>
<td>Management of previous diagnosis</td>
<td>64%</td>
</tr>
<tr>
<td>Most frequent Diagnosis</td>
<td>Depression</td>
<td>40%</td>
</tr>
<tr>
<td></td>
<td>Schizophrenia</td>
<td>9%</td>
</tr>
<tr>
<td></td>
<td>Panic disorders</td>
<td>9%</td>
</tr>
</tbody>
</table>

Opinions on telepsychiatry

Impact on consumers

The perceived benefits noted by the consumers of telepsychiatry included both monetary and non-monetary advantages such as:

- reduced travel time;
- less stress of travel to appointments;
- decreased transportation and/or lost work time for consumer and family;
- reduced delay in accessing psychiatrist;
- feeling of confidentiality and privacy;
- consumer choice and control;
- improvement in quality of life;
- accessibility to a psychiatrist;
- potential for improvement in condition without hospitalization.

The perceived disadvantages noted by the consumers of telepsychiatry included:

- interaction of consumer and psychiatrist impersonal but acceptable;
- potential for decreased sensitivity in interviews.

Comments obtained from telephone interviews which related to some of these points are given in Appendix C.

The responses by consumers to questions in telephone interviews (Table 6) give an indication of some attitudes to telepsychiatry. There was strong preference for use of the new technology rather than waiting for a consultation or traveling to see a psychiatrist. In contrast, opinion was divided as to whether consumers would rather use telepsychiatry than see a psychiatrist in person.
Table 6: Consumer responses to telephone interview questions

<table>
<thead>
<tr>
<th>Response</th>
<th>Strongly agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
<th>Not sure</th>
</tr>
</thead>
<tbody>
<tr>
<td>'I would rather use telepsychiatry than travel to see a psychiatrist'</td>
<td>8</td>
<td>17</td>
<td>5</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>(n=32)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>'I would rather use telepsychiatry than have to wait to see a psychiatrist'</td>
<td>24</td>
<td>8</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>(n=32)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>'I would rather use telepsychiatry than see a psychiatrist in person'</td>
<td>0</td>
<td>13</td>
<td>11</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>(n=29)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Impact on service providers

Service providers took an active part in approximately one third of all 109 consultations. The results of the service providers surveys indicated:

- an improved availability of mental health services (86% thought that telepsychiatry would improve availability of services and 9% that this might be the case);
- physicians who used telepsychiatry services expressed satisfaction with the service;
- the physician had the ability to support the consumer at the psychiatrist consultation/discuss recommendations with the psychiatrist.

Impact on psychiatrists

Alberta Hospital Ponoka psychiatrists were supportive throughout the Pilot Project. They perceived the benefits of telepsychiatry as follows:

- consumers were seen before their condition became severe;
- there was an opportunity to provide education to local providers on behavior management and medication management;
- increased productivity for psychiatrist staffing overall by decreasing unproductive time;
- increased available psychiatric consultation time.

Overall satisfaction with telepsychiatry use

The overall satisfaction of consumers, service providers and psychiatrists were gauged by questions asked both at the time of the survey and in the follow up interviews.

Ninety percent of psychiatrists, 96% of the service providers and 84% of the consumers were satisfied with sessions (Figure 2).
Figure 2: Agreement with the statement “I was satisfied with the session”

Table 7 shows the overall rating of telepsychiatry given by consumers.

**Table 7: Ratings of telepsychiatry by consumers**

<table>
<thead>
<tr>
<th></th>
<th>Use again</th>
<th>Recommend to friend</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes – definitely</td>
<td>18 (26%)</td>
<td>21 (71%)</td>
</tr>
<tr>
<td>Yes</td>
<td>10 (32%)</td>
<td>8 (26%)</td>
</tr>
<tr>
<td>No</td>
<td>2 (6%)</td>
<td>1 (3%)</td>
</tr>
</tbody>
</table>

**Cost Analysis**

A comparison of a travelling psychiatrist’s visit to sites (clinic consultation model) and the telepsychiatry consultation model was undertaken using data generated by the project and historical data regarding psychiatrists’ travel.

The following assumptions were made in the cost analysis:

- The consumer required a timely psychiatric consultation through one of the models.
- The cost of the psychiatrist for the consultation was $100 for both telepsychiatry and for clinic consultation. (Based on information received from PMHAB Finance department.)
- The extra implementation costs (meeting time, training time, marketing time, and room renovations) were not included in the costing.
- The line cost quoted by Telus (15¢/minute) was used as a standard rate for line rental and long distance charges to allow for consistency.
- Depreciation was over 4 years as the growth change in this technology area is rapid.
• Staff time for equipment setup and shut off was taken to be 40 minutes per consultation (20 minutes at each site).
• Time for initial consultations was approximately 60 minutes consultation plus setup time of 15 minutes.
• Costs were considered on an annual basis.
• Travel time to sites was estimated at one hour per 100 kilometres.
• Staff costs at the sites were $20 per hour.

**Costs for telepsychiatry**

*Fixed Costs*

Total fixed costs (TFC) for telepsychiatry = cost of equipment $456,000 + cost of installation (to be depreciated over 4 years) \( \frac{7,200}{4} \) = 463,200 + annual line charge 54,000

\[
\text{Annual TFC} = \frac{463,200}{4} = $115,800 + 54,000 = $169,800
\]

*Variable Costs*

Total cost/consultation using telepsychiatry = psychiatrist (1 h) $100.00 + long distance $0.15 /min x 75 (min) x 6 lines 67.50

Staff time at sites, equipment operation/reception 20 min. each site, 40 min. total x $20/h 13.33

\[
\text{Total Variable Costs (TVC) telepsychiatry} = $180.83
\]

*Costs for a travelling consultation*

Total cost/consultation using travelling psychiatrist (psychiatrist - 1 h) $100 + travel average distance to site 200 km x 2 (round trip) @ $.25/km 100 + travel time of psychiatrist at 4 h @ $100/h 400 + subsistence 10

\[
\text{TVC travelling psychiatrist} = $610
\]

At 396 consultations per year, the total costs for telepsychiatry and for a travelling consultant would be the same. Variation of the cost per consultation with number of consultations is shown in Figure 3 for both telepsychiatry and conventional psychiatric services.

If the travelling psychiatrist saw more than one consumer on a trip to each centre, the travelling costs per consultation would decrease; however, to be sensitive to meet the needs in rural areas in a timely manner, a system should have the capability of providing one consultation when needed.
Overall impact of telepsychiatry

The justification for telepsychiatry must not be measured in costs alone, but also in terms of its impact on the consumer. Efficiencies and impacts on the service providers and psychiatrists must also be considered. The broader, overall impact of telepsychiatry is addressed in Table 8. This gives a summary of various monetary and non-monetary impacts of telepsychiatry, on different participants – consumers and their families, psychiatrists and local service providers.
### Table 8: Overall impact of telepsychiatry services

<table>
<thead>
<tr>
<th>Area of impact</th>
<th>Consumer / family</th>
<th>Psychiatrist</th>
<th>Physician / local service provider</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Non-monetary</strong></td>
<td><strong>Monetary</strong></td>
<td><strong>Non-monetary</strong></td>
<td><strong>Monetary</strong></td>
</tr>
<tr>
<td><strong>Decreased travel</strong></td>
<td>decreased travel time no additional stress: a) driving in unfamiliar areas/traffic/parking) b) confidentiality, do not have to tell someone about transportation.</td>
<td>no expense of travel (gas, parking, bus, paying someone) no expense of time away from work</td>
<td>no stress related to non-productive time for psychiatrists, overall potential for increased caseload</td>
</tr>
<tr>
<td><strong>Decreased wait time</strong></td>
<td>receive help/support without delay potential for decreased severity of illness potential to prevent hospitalization reduce stress/worry</td>
<td>less lost work time/school time</td>
<td>ability to see client before severity makes hospitalization necessary</td>
</tr>
<tr>
<td><strong>Client choice and control / increased knowledge and ability to manage in the community</strong></td>
<td>ability to leave consultation at any time choice of options (other than those in community) ability to get second opinion, specialist positive self esteem/image</td>
<td>potential to decrease demand by lessening inappropriate referrals over time</td>
<td>assistance in managing behavior assistance/education in medication management</td>
</tr>
<tr>
<td><strong>Quality of life</strong></td>
<td>immediate benefits - feeling of support and having someone to talk to - expert opinion/information/assistance with coping skills improvement in condition/relationships/energy feeling comfortable that visit is confidential as consultant from outside community decreased stress</td>
<td>decreased stress related to travel</td>
<td>ability to provide better service to clients</td>
</tr>
</tbody>
</table>
Process observations

Process Observations include those items identified as project influences, impacts, and constraints.

Consent

The use of video conferencing technology for psychiatric consultations did not appear to present any unique issues. No video taping of the consultation occurred and no concerns regarding the consultations themselves were raised.

Costs

The cost sharing arrangement was formalized in a Letter of Understanding between the Provincial Mental Health Board and the Regional Health Authorities. The initial equipment acquisition costs were of less concern than the uncertainty associated with ongoing telephone charges.

Technological obsolescence

The Site Coordinators reported that the major frustration has not been equipment failure as much as the failure of the telephone infrastructure to support the project needs.

At the beginning of the project, use of the equipment for other purposes was not encouraged; but as the project progressed, sites did experiment with other uses. At the end of the evaluation period the site coordinators reported the video conferencing equipment had been utilized for inter-site meetings and limited education sessions.

Reimbursement and psychiatric staffing

Psychiatric consultants were provided by Alberta Hospital Ponoka through the established hospital budget during the Pilot Project. The telepsychiatry appointments were merged into their regular booking schedules. Consumers were not entered into the Alberta Health Fee for Service Claims system as telepsychiatric consultations are not currently considered a “face-to-face claimable service.”

If a single physician or group of physicians provides the program, provision for flexibility when demand fluctuates and a plan for down time (holidays and sick time) needs to be considered both for continuity of service and work load of the consultant.

As consumers felt that choice of psychiatrist was important to them, providing the options of using other psychiatrists when choice is a concern of consumers is another area that may be important to explore when planning a program.

System access

All equipment was placed in acute care general hospitals which allowed for the use of existing staff and facilities.
**Room design**

Specifications for room adaptation were proposed by the equipment supplier to Alberta Hospital Ponoka, which in turn provided directions to the selected sites. Wetaskiwin, Edson, Drumheller, Alberta Hospital Ponoka, and Wainwright all renovated rooms of varying size and shape to accommodate telepsychiatry. Drayton Valley placed the equipment within an existing room with minimum renovations. Feedback on the room design and the quality of the environment were solicited at the time of the consultation through the technology assessment and during the telephone interview.

The results of the evaluation suggest that video conferencing equipment can be utilized effectively in a variety of room settings.

Several of the site coordinators emphasized the need for flexibility in the room. The initial set up at the Alberta Hospital Ponoka site suggested a more formal table and chairs. However, the site personnel in consultation with the psychiatric consultants rearranged the room to a more informal setup with lounge chairs and a small table, more like a living room. Other sites also adapted the setup to fit the function of the room. Site coordinators recommended avoiding shiny surfaces on tables, and ensuring that rooms are soundproof.

**Compatibility and growth**

Four of the five site coordinators thought that telepsychiatric consultations would increase and also that the use of the equipment for education, management support, and other telehealth applications would be implemented in their areas.

Two sites attempted to link into a university-based course during the project and had difficulty bridging into the university equipment. Another site had difficulty linking to a large tertiary hospital. A move to multiple usage of the equipment would require discussion of standards for equipment and bridging capabilities.

**Quality of equipment**

Responses on the “technology assessment” forms indicated that the sound pictures and audio quality were good and did not interfere with the interaction or outcome of the consultations. Some studies have suggested that consultations using fewer than six lines may be as successful. It would be worth testing this approach. During the interviews it became apparent that the actual technology was of secondary importance to the quality of interaction with the psychiatrists in overall ratings of satisfaction.

**Technical training**

The set-up and establishment of the communication links was easily managed by the project sites. As the Pilot Project progressed, the setup and establishment of communication links was done by a variety of persons, none of whom had a technical background. None of the site coordinators or Implementation Team had any previous significant technical training.
The consultant psychiatrist and site coordinators were provided with ongoing support from the Implementation Team. Three of the site coordinators suggested they would have preferred additional technical training in order to be better able to troubleshoot difficulties and answer questions that arose from consumers or local service providers. The Alberta Hospital Ponoka had an audiovisual technician as backup, but his services were rarely utilized.

**Marketing**

Marketing for this project referred to the introduction of the service to general practitioners, advertisement to the community at large, and identification of other services that could be provided. The partner sites are to be commended for the effort expended in advertising services in the local media. Several of the consultant psychiatrists also provided interviews which successfully portrayed the services provided.

Strategies for telepsychiatry marketing included involvement of local site coordinators in planning and implementation of open houses and other activities to ensure activities were directed at and designed to meet the needs of each of the communities. Open house timing, invitations and targeted groups were determined by the individual sites; therefore, marketing activities differed between sites.

**Open houses and physician attendance.** Site coordinators in Wetaskiwin, Drayton Valley, and Wainwright reported poor attendance by physicians at open houses. Only 15% of the physicians said they had learned about telepsychiatry at the open houses, while 67% said the site coordinator was their first source of information about the project.

**Printed materials.** Centrally produced brochures were not available at the start of the program. Several site coordinators suggested having these earlier may have allowed marketing to reach a larger number of health care providers. None of the physicians or consumers surveyed mentioned the brochures as a source of information.

**Consumers’ identified information source.** While the majority of the consumers indicated they had heard of the service from their physicians, mental health counsellors also provided information about telepsychiatry to individuals. In addition, two individuals who received treatment in the latter stages of the Pilot Project said they first heard of telepsychiatry from a friend.

**Overall effectiveness in generating referrals.** The relationship between marketing activity and referral numbers is not clear. The number of activities and the number of referrals did not appear to be related, with one site having the greatest number and variety of activities being one of the sites with the least referrals.

Site coordinators’ informal reminders appeared to be the first information source for many physicians.
Referral system

The referral system, was identified as an area that could be improved. Referrals were not always received by Alberta Hospital Ponoka in a timely manner. The appointment was made before the referral was received and follow-up phone calls between Alberta Hospital Ponoka, the hospital staff booking the appointments, the physician’s office and the consumer were numerous. At the sites both the site coordinator and Admissions were usually involved. Staff indicated that as this was “an added role” and as referrals were not frequent, recalling the process was difficult, especially with frequent staff changes.

Information system

As this was a pilot, the individuals served by the program were not integrated into a regular information system in most of the hospital areas and at Alberta Hospital Ponoka. Consistent information was not available on the consumers using the system, which resulted in some difficulties in program evaluation. Integrating telepsychiatry into current information services needs to be discussed so that coordination with other programs can occur and accurate service utilization, productivity, and outcomes can be tracked.

Integration

The Telepsychiatry Pilot Project offered services on a strict medical consultation model. The potential for the technology for use in other community mental health services was evident to consumers and site coordinators. Utilization of the service could be improved by further integration with the existing services.

The evaluation outcome showed that consumers preferred a certain type of service delivery. During the planning phase each site had to utilize existing resources for service delivery. In retrospect, two “models” of service provision became evident relating to the services provided. In the first, the Site Coordinator was either in a nursing management position, administration and/or service level from acute care facility. In the second, the Site Coordinator was either a mental health nurse or counselor. In both “models”, registrations and appointments were handled by the admitting department of the hospital.

The site coordinator set up the room, explained the process to the individual receiving the service, made the connection to the psychiatrist, and left the individual alone in the room. The coordinator then returned to ensure that the equipment was shut off. Unless the individual was an inpatient in the hospital, no further involvement occurred with the individual receiving the service.

It was noted that the mental health nurse or counselor was more involved with the consumer, had frequently seen the consumer before the referral, and sat in on the consultation with the consumer more often. They may have also provided support following the consultation.

Sites using Model 2 with involvement of a mental health nurse accounted for 75% of the total consultations for the telepsychiatry project.
Two consumers using Model 1 (without mental health professional involvement) expressed concern about follow-up stating, “Feeling a little isolated without a local person or number to call for support in the next few days.” About 13% of the individuals in the telephone survey (4 out of 32) appreciated the anonymity of being in the room alone and of having no local mental health personnel involved.
Comments on the project

Factors which may have influenced project

Factors that may have influenced the telepsychiatry project were determined by interviewing the site coordinator, the EAC and the Implementation Team. The project influences, impacts, and constraints identified were:

Positive

- videoconferencing is very adaptable to a variety of room settings;
- additional uses for teleconferencing such as meetings and education sessions, other medical consultations;
- consumers allowed a choice of psychiatrist;
- reduced stigma for consumer (visiting an acute care facility as opposed to a mental health clinic);
- good video and audio quality;
- psychiatrists, when interviewed by the media, portrayed telepsychiatry services as successful.

Negative

- uncertainty of ongoing telephone changes;
- failure of telephone infrastructure;
- marketing of telepsychiatry by physicians, mental health service providers and the communities not consistently communicated;
- referral system needs to be refined, referrals were not always received by Alberta Hospital Ponoka in a timely manner;
- a project procedure manual was not in place for the Pilot Project; support and direction came through the Implementation Team.

General

- reimbursement of physician services to be clarified;
- downtime (such as holidays and sicktime) need to be considered to ensure continuity of services;
- more sites are required to meet the needs of remote communities;
- more training equipment required to enable troubleshooting of problems;
- tracking of service utilization, productivity and outcomes required;
- further integration with existing services is required to assure services are not being duplicated and/or to ensure follow up.
Limitations to the evaluation study

A number of limitations to the evaluation were evident, due both to the nature of the project and the organization of services. The following points were noted:

- The organization of mental health services did not allow for the collection of baseline information, including wait-list data for psychiatrists at the community mental health clinics as in private practice.
- The evaluation methodology and the Pilot Project time lines did not allow for tracking individuals through the mental health system.
- In a more traditional health technology assessment, one would need to be able to quantify what would have happened to the consumer if they had not had the particular intervention. Although the consumer and service providers were asked to identify options, this issue was not addressed to the extent that would be desirable.
- No satisfactory data are available on the satisfaction with face-to-face psychiatric consultations; hence, no comparison can be made.
- The benefits of telepsychiatry measured was limited to consumers’ satisfaction of services provided; the clinical perspective of benefit was not measured.
- No attempt was made to capture the number of individuals that refused to use telepsychiatry when suggested.
- No mechanism was established for the accurate, continuous recording or tracking of equipment or line failures.
- Further articulation of outcomes should be undertaken. The long-term benefit of telepsychiatry and its impacts on consumers and physicians will not be evident for several years.
Recommendations made to the PMHAB

The results of the Telepsychiatry Pilot Project evaluation illustrate the value of the continued provision of psychiatric consultations through video conferencing technology and the expansion of the service to other forms of mental health delivery.

Telepsychiatry has the potential for being an important contributor to a system of integrated community-based mental health services. In order to receive the maximum cost effectiveness from the video conferencing equipment in rural areas, consideration should be given to using the technology for other uses such as meetings and/or other telehealth applications.

The following recommendations should be given consideration in planning for new telehealth programs or expanding the current Telepsychiatry program.

**Technology**

Six line 336/384 kbps is sufficient for psychiatric consultations; however, as the experience with the technology improves, consultations on fewer lines should be considered.

Further expansion with this technology needs to include a thorough investigation with telephone service providers regarding the telephone infrastructure required to support the project needs, including bridging between multiple sites.

Site coordinators require a working knowledge of how to troubleshoot on the equipment, and sites must be backed up by quick access to technical expertise.

As with any consultation modifications will be needed to provide a satisfactory interaction for someone who may have decreased hearing.

**Service model**

The need to screen referrals to a psychiatrist by a mental health worker to assure the referral was appropriate is one possible model for use in future telepsychiatry projects.

**Site selection**

Although there is a temptation to try to maximize the use of the equipment, a staged implementation is likely to prove more effective.

Consideration should be given to locating the system within an existing multi-service facility. This would have a dual function: to forward the philosophy that physical and mental health are essential health services; and to access existing infrastructure for the service, such as admission and information systems.
<table>
<thead>
<tr>
<th>Area</th>
<th>Suggested Improvement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marketing</td>
<td>Involving physicians, health care providers and community mental health professionals in the planning stages may increase awareness of telepsychiatry and how it fits into the current mental health service provider system. A more complete disclosure of costs and benefits, for example, may preempt some of the misconceptions and resistance. The reports from the physicians indicated that the most effective marketing strategies are face-to-face contact done on the local level. Rather than propose to have centralized marketing, it may be more effective to have a centralized advertising strategy with links to the major newspapers and television stations. Each community/site would continue to be responsible for marketing and promoting services to local physicians.</td>
</tr>
<tr>
<td>Reimbursement and psychiatric staffing</td>
<td>Arrangements of payment for telepsychiatry consultations needs to be addressed during the planning phase for continuation or expansion of the service.</td>
</tr>
<tr>
<td>Information systems</td>
<td>Consumers being served through telepsychiatry need to be entered into an integrated mental health consumer data base to ensure accountability and tracking. Integration into the current clinic system would allow for more consistent comparison data.</td>
</tr>
<tr>
<td>Staffing</td>
<td>The lack of dedicated human resources for the overall project management was considered a barrier to increasing the number and type of consultations. Future implementation should include dedicated time for the service to ensure quality service, as well as time for accountability activities. The implementation of telemedicine projects such as the Telepsychiatry Pilot Project involves a variety of clinical/administrative issues, not all of which can be anticipated. It is important that the project management structure recognize this and ensure from the onset that appropriate linkages are established and maintained.</td>
</tr>
<tr>
<td>Referrals</td>
<td>A more simple referral loop may be appropriate. A written protocol with responsibilities clearly delineated including referral forms at the start of the program may have provided more direction for referrals.</td>
</tr>
<tr>
<td>Evaluation</td>
<td>The Project Evaluator had no direct link with the psychiatric consultant, but rather relied on the Implementation Team. This may need to be reconsidered for future evaluations. As was the case in this project, it is recommended an evaluation component be considered when developing the services.</td>
</tr>
</tbody>
</table>
Appendix A: Implementation chronology

Alberta Hospital Ponoka began researching and trialing available equipment eighteen months prior to receiving approval for tender. This experience allowed them to proceed quickly to tender and selection of equipment. The operationalization of the five sites was completed within six months of the receipt of tender. Sites were considered to be operationalized when the first consultation occurred.

Implementation of five sites within this time period required a significant effort on behalf of all those involved.

<table>
<thead>
<tr>
<th>Month</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>September 1994</td>
<td>Alberta Hospital Ponoka trialed the AGT Remote Consultative Network video conferencing equipment</td>
</tr>
<tr>
<td>February 1996</td>
<td>Pilot Project approved by the Provincial Mental Health Board</td>
</tr>
<tr>
<td>March 1996</td>
<td>Video conferencing equipment purchased by the Provincial Mental Health Board for the Telepsychiatry Pilot Project</td>
</tr>
<tr>
<td>April/May 1996</td>
<td>Regional Health Authorities selected pilot sites</td>
</tr>
<tr>
<td>June 1996</td>
<td>Wainwright was operationalized</td>
</tr>
<tr>
<td>June 1, 1996</td>
<td>First consultation</td>
</tr>
<tr>
<td>June 1996</td>
<td>Evaluation mandate provided by the Central Area Management Committee</td>
</tr>
<tr>
<td>July 1996</td>
<td>Drumheller was operationalized</td>
</tr>
<tr>
<td>July 1996</td>
<td>Evaluation Advisory Committee was established</td>
</tr>
<tr>
<td>August 1996</td>
<td>Drayton Valley was operationalized</td>
</tr>
<tr>
<td>August 1996</td>
<td>Wetaskiwin was operationalized</td>
</tr>
<tr>
<td>September 1996</td>
<td>Edson was operationalized</td>
</tr>
<tr>
<td>November 1996</td>
<td>Project evaluation period continued</td>
</tr>
</tbody>
</table>
Appendix B: Survey instruments

A number of the survey instruments used in the evaluation have been included in this Appendix. Use of any of the instruments requires permission from the authors of this report.
The Telepsychiatry Project

1. Which of the following best describes your use of the videoconferencing system?
   - Receiving services ______
   - Providing services ______
   - Administering services ______
   - Other ______

Please answer the following questions using the scale to the right:

<table>
<thead>
<tr>
<th>Question</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. Overall, how satisfied were you with the videoconferencing session?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. How satisfied were you with the audio quality of your session?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. How satisfied were you with the video quality of your session?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. How satisfied were you with the ease or use of system?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. If technical difficulties were encountered, how satisfied were you</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>with the manner in which they were resolved?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. How well do you feel you were able to communicate using this medium?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Please answer the following questions using the scale to the right:

<table>
<thead>
<tr>
<th>Question</th>
<th>Very Unlikely</th>
<th>Somewhat Unlikely</th>
<th>Unsure</th>
<th>Somewhat Likely</th>
<th>Very Likely</th>
</tr>
</thead>
<tbody>
<tr>
<td>8. How likely are you to personally participate in another videoconfere</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>9. How likely are you to recommend this type of video based telespsychia</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

10. What suggestions would you have for improving the overall use of the Video System?
Telepsychiatry Pilot Project
Technology Assessment

<table>
<thead>
<tr>
<th></th>
<th>Poor</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quality of Sound</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Quality of Picture</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Ease of Use</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Quality of Room Environment</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Overall Rating of Technology</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

Date ____________________________

Thank you for your assistance. If you would like to make any additional comments, please call (403) 783-7668.

_____________________________

TELEPSYCHIATRY PILOT PROJECT
XXX HEALTH CENTRE
ADDRESS
TOWN, AB POSTAL CODE

JENNIFER SIMPSON
TELEPSYCHIATRY PILOT PROJECT
PROJECT EVALUATION
BOX 1000
PONOKA, AB T4J 1R8
Your Name _______________________________ Date __________________________

Area of Practice: ___________________________________

Participants in Session:
________________________________________________________________________
________________________________________________________________________

Have you provided service to this person before: □ Yes □ No

Are they currently an inpatient in a hospital or other institution? □ Yes □ No

Has this person previously been hospitalized for mental illness? □ Yes □ No

Approximately how long have they been receiving care for mental health problems? __________

If a telemedicine consultation had not been available for this situation, what were your options?

□ Provide care locally
□ Refer patient out of community
□ Refer patient for inpatient treatment (hospitalized)
□ Other (please specify):

Reason for Consultation:

□ Assist with management of previously diagnosed condition □ Post-discharge follow-up
□ Establish diagnosis □ Medication Consult
□ Assist with service delivery to client □ Service Co-ordination
□ Consumer Education □ Family Consultation
□ Provider Education □ Agency Education
□ Other (please specify) □ MACSS Team Assessment
□ Pre-admission Screening
<table>
<thead>
<tr>
<th>Please circle one</th>
<th>Agree</th>
<th>Somewhat Agree</th>
<th>Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>I was satisfied with the session</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I was able to present the same information</td>
<td></td>
<td>Somewhat Agree</td>
<td></td>
</tr>
<tr>
<td>I would have presented in person</td>
<td>Agree</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I was comfortable with my ability to interact with the participants</td>
<td></td>
<td>Somewhat Agree</td>
<td></td>
</tr>
<tr>
<td>The clinicians at the other site appeared to be comfortable with the ability to</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The technology was appropriate for this application</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

PLEASE BE SURE TO LEAVE YOUR COMPLETED QUESTIONNAIRE WITH THE SITE FACILITATOR BEFORE YOU LEAVE OR MAIL IT TO JENNIFER SIMPSON, PROJECT EVALUATION, BOX 1000, PONOKA, AB T4J 1R6

Service Provider Questionnaire
THE TELEPSYCHIATRY PILOT PROJECT
ALBERTA HOSPITAL PONOKA SITE

________________________________________________________________________
Your Name Date/Time of Consultation

Participants in Session:
________________________________________________________________________

Location of remote video conferencing site:
________________________________________________________________________

Has the client participated in Telepsychiatry before? □ Yes □ No

Are they currently an inpatient in a hospital or other institution? □ Yes □ No

Has this person previously been hospitalized for mental illness? □ Yes □ No

Is this a follow-up? □ Yes □ No

Approximately how long have they been receiving care for mental health problems? __________

What would be your provisional diagnosis? _____________________________________________

Approximate age of client: __________

Reason for Consultation:

□ Assist with management of previously diagnosed condition
□ Establish diagnosis
□ Assist with management of behaviour
□ Consumer Education
□ Provider Education
□ Other (please specify)
□ Pre-admission Screening

□ Post-discharge follow-up
□ Medication Consultation
□ Service Co-ordination
□ Family Consultation
□ Agency Education
□ MACSS Team Assessment
<table>
<thead>
<tr>
<th>Question</th>
<th>Agree</th>
<th>Somewhat Agree</th>
<th>Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>I was satisfied with the session</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I was able to present the same information I would have presented in person</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I was comfortable with my ability to interact with the participants</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The technology was appropriate for this application</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**PLEASE SEND YOUR COMPLETED QUESTIONNAIRE TO:**  
JENNIFER SIMPSON, PROJECT EVALUATION, PLANNING  
BOX 1000, PONOKA, AB T4J 1R6  
Consultant Questionnaire
THE TELEPSYCHIATRY PILOT PROJECT
XX SITE

If a telepsychiatry consultation had not been available for this situation, what were your options?

☐ Look for other local resources
☐ Seek out of community resources
☐ Seek inpatient visit (hospitalized)
☐ Other (please specify):

_____________________________________________________

After the session:

<table>
<thead>
<tr>
<th></th>
<th>Disagree</th>
<th>Agree</th>
<th>Don’t Know</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I felt that the Doctor listened to me</td>
<td>1 2</td>
<td>3 4</td>
<td>5 6</td>
</tr>
<tr>
<td>2. I feel supported or encouraged</td>
<td>1 2</td>
<td>3 4</td>
<td>5 6</td>
</tr>
</tbody>
</table>

Please circle one

I was satisfied with the session

Agree Somewhat Agree Disagree

I was able to present the same information

Somewhat Agree Disagree

I would have presented in person

Agree

I was comfortable with my ability to talk

Agree

Somewhat Agree Disagree

with the participants

The clinicians at the other site were

Agree

comfortable with the ability to interact with

Somewhat Agree Disagree

the participants

The equipment was appropriate for this

Agree

application

Somewhat Agree Disagree
I consent to participate in a telephone follow-up evaluation of the Telepsychiatry Pilot Project: □ Yes □ No

(This information will remain strictly confidential. You will not be able to be identified in any of the reports produced).

If yes, please provide your name, address, and a phone number you may be reached at:

Name: ____________________________ Date: ____________________________

Address: ____________________________ Phone: ____________________________

___________________________________  ______________________________

___________________________________  ______________________________

___________________________________  ______________________________

PLEASE BE SURE TO LEAVE YOUR COMPLETED QUESTIONNAIRE WITH THE SITE FACILITATOR BEFORE YOU LEAVE OR MAIL IT TO:
JENNIFER SIMPSON, PROJECT EVALUATION, BOX 1000, PONOKA, AB T4J 1R8

Consumer Questionnaire
THE TELEPSYCHIATRY PILOT PROJECT
TELEPHONE FOLLOW-UP SURVEY - Code Sheet

<table>
<thead>
<tr>
<th>Interviewer</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1st Attempt</td>
<td></td>
</tr>
<tr>
<td>2nd Attempt</td>
<td></td>
</tr>
<tr>
<td>3rd Attempt</td>
<td></td>
</tr>
</tbody>
</table>

| Time Taken To Complete Call |  |

First, we are interested in your overall view of mental health services in your area.

*(Please note that reference to mental health would be changed to reflect brain injury rehabilitation as appropriate)*

A. Overall, how good would you rate the availability of mental health services in your community? 1. Very good 2. Good 3. Fair 4. Poor

B. Do you think that Telepsychiatry could improve the availability of mental health services in your community? 1. Yes 2. No 3. Perhaps

C. In the past, have you found it difficult to get mental health services when you needed them?

1. No, it was easy
2. A bit difficult
3. Very difficult
4. It depends on what services *(Please have them provide a specific example)*
5. Have not attempted to access mental health services before

__________________________________________

__________________________________________

__________________________________________
D. How did you learn about Telepsychiatry? *(Try and get as specific information as possible)*

E. Overall, how satisfied were you with the service you received?

*(Interviewer Instructions: If not satisfied or somewhat satisfied, then please ask for an example and ask them to explain that example).*

F. Who was in the room at the time of your consultation. *(Interviewer Instructions: If this was a service provider, are you receiving service from this person now?)*

Would you recommend that a service provider e.g. doctor, nurse or social worker be present at the consultation? *(If yes, who - your counsellor, general practitioner, nurse, other, etc.)*
   1. Yes  2. No

Please indicate whether you agree or disagree with the following statements.

G. I was satisfied with the atmosphere, appearance, and physical setup of the interview room:

*(Interviewer Instructions: If they disagree or strongly disagree, then please ask for an example.)*

H. The procedure, ie. How the equipment works or what happens when you get into the room, for the consultation was well explained to me:

*(Interviewer Instructions: If they disagree or strongly disagree, then please ask for an example.)*
THE TELEPSYCHIATRY PILOT PROJECT
TELEPHONE FOLLOW-UP SURVEY - Code Sheet

I. I would rather use telepsychiatry than have to travel to see a psychiatrist:

J. I would rather use telepsychiatry than have to wait to see a psychiatrist:

K. I would rather use telepsychiatry than see a psychiatrist in person:

L. Would you use the Telepsychiatry service again?
   1. Yes, definitely  2. Yes  3. No  4. No, definitely not

M. If a friend were in need of similar help, would you recommend the service to them?
   1. Yes, definitely  2. Yes  3. No  4. No, definitely not

N. It has been _____ time since your consultation. Did your family doctor discuss the results of your consultation with you?
   1. Yes  2. No

   If yes, did the information assist you in:

   1. Making decisions
   2. Finding better ways of coping
   3. Having more energy to do something differently
   4. Changing medications
   5. Other - please give examples

O. Overall, what were the major benefits/disadvantages of Telepsychiatry to you?

P. Overall, what were the major benefits/advantages of Telepsychiatry to your family?

Q. Do you have any suggestions for the use of the equipment?
R. Other comments?
THE TELEPSYCHIATRY PILOT PROJECT
REFERRING PHYSICIAN FOLLOW-UP SURVEY

Name (optional):
____________________________________________________________________

Location:
____________________________________________________________________

1. Which problems are the most frequent basis for referral for psychiatric consultation?
____________________________________________________________________

2. Can you estimate, on average, how often you would request a psychiatric consultation?

   □ once a week  □ once a month or more
   □ 4-8 times a year  □ less than 4 times a year

3. How many patients does this represent a month?     ____________________________________

4. If your patient required a psychiatric consultation, where would you usually refer them?

   Percentage of time used for referral  Estimated average waiting time for an appointment
   Local Mental Health Clinic  ___________  ___________
   Edmonton  ___________  ___________
   Calgary  ___________  ___________
   Alberta Hospital Ponoka  ___________  ___________
   Alberta Hospital Edmonton  ___________  ___________
   Local Hospital  ___________  ___________
   Other  ___________  ___________

Please complete the back of the form
5. How would you rate the availability of mental health services in your area? (before Telepsychiatry)
   □ Very good □ Good
   □ Fair □ Poor

6. Are you satisfied with the services you received?
   □ Very Good □ Good
   □ Fair □ Poor

7. Are you receiving the results of the consultation in a timely manner?
   □ Very Good □ Good
   □ Fair □ Poor

8. Do you think that Telepsychiatry could improve the availability of mental health services in your area?
   □ Yes □ No □ Maybe

9. How did you learn about Telepsychiatry?
   □ Pamphlet □ Radio
   □ Television □ Open House
   □ Schedule □ Site Coordinator
   □ Other: __________________________

10. Would you use the Telepsychiatry service for?
    □ Child Psychiatry
    □ Psychogeriatrics
    □ Case Conferences
    □ Substance Abuse Counselling
    □ Inservice
    □ General Psychiatry
    □ Medical Education
    □ Discharge Planning

11. Comments:
    ____________________________________________________
Appendix C: Consumer comments

The following comments were obtained from consumers during telephone interviews. They further illustrate the impact of telepsychiatry.

- “comfortable in own town, not having to drive in a large city, and look for address and parking”;
- “no family support so travel is very difficult and so I have to ask someone or ride a bus and get around a different city”;
- “convenient in own town”;
- “would have to tell someone I needed a ride and why”.

Decreased Transportation and/or Lost Work Time ‘for Consumer and Family’

- “was good to have here without travel so my husband could participate without missing a lot of work”;
- “expense of travel and parking in the city would make a difference to me”.

Reduced Delay in Accessing Psychiatrist

- “would be too far gone if I had to wait”;
- “couldn’t have waited three months for help”.

Feeling of confidentiality and privacy

- “Confident no one else in the room or in the community knows who you are seeing”.
- “No one in your town seeing you, so private consumer choice and control.”

Consumer choice and control

- “Great feeling of control...had freedom to walk out if I didn’t like it.”
- “Allowed me choices ...different opinion.”

Improvement in quality of life

- “My family saw an improvement in me.”
- “More self awareness ...different opinion gave me a different perspective.”
- “I’m better so I behave better and so has been an advantage for my family.”
Benefits of seeing a specialist

- “Gave me a chance to see a specialist only had access to psychologist or GP before this.”
- “Advice from a specialist regarding medications was helpful.”
- “Expert opinion is valuable...he asked the right questions.”
- “Led me in the right direction.”