

# Western Canada Waiting List Project

From Chaos to Order:  
Making Sense of Waiting Lists in Canada

Final Report



March 31, 2001



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## EXECUTIVE SUMMARY

### Introduction:

The Western Canada Waiting List (WCWL) Project is a collaborative undertaking by 19 Partner organizations: seven regional health authorities; four medical associations; four provincial ministries of health; and four health research centres. The Project is unique in the multidisciplinary nature of its partnership and the scope of its work. It has provided an opportunity for key stakeholders to work in collaboration on a sensitive and highly relevant health care issue: effective management of waiting lists for elective health care.

We anticipate that there will be considerable interest in the application of the results of WCWL activities. The new knowledge developed by this project will be of interest to the health services research and management communities at all levels of the Canadian health care system, and to the international community.

The WCWL Project was established to address significant and long-standing problems of access to health care in Canada and to influence the way waiting lists are structured, managed, and perceived. The overarching mission has been to improve the fairness of the system so that Canadians' access to appropriate and effective medical services is prioritized on the basis of need and potential to benefit. To this end, the work of the Project has focused on the following themes:

- **The formation of a partnership of key healthcare system stakeholders:**

The WCWL Partnership is an unprecedented collaborative undertaking by medical associations, provincial ministries of health, regional health authorities, and health research centres, supporting the work of five multidisciplinary clinical panels, an implementation panel, and a project steering committee.

- **The development of valid, reliable, practical, and clinically transparent tools to assist in the management of waiting lists for selected diagnostic, procedural, and consultative procedures:**

Production of physician-scored point-count tools for assigning priority to patients on waiting lists has been the overarching goal of the Project and was carried out in five significantly different clinical areas: cataract surgery; general surgery procedures; hip and knee replacement; MRI scanning; and children's mental health. The priority criteria and the scoring system were developed through extensive clinical input from panel members and several stages of empirical work assessing their validity and reliability.

- **An assessment of the potential for implementation of the WCWL priority criteria tools in the seven participating regional health authorities:**



Anticipating the environment in which the priority criteria tools would be implemented, the views of participating regional health authorities were obtained through a series of interviews with key clinical and administrative informants.

- **An assessment of public opinion on the priority criteria tools and their implementation:**

A series of focus group sessions, conducted in seven cities Western Canada, brought together members of the general public to comment on the work of this project and to provide input on issues related to future application of the tools.

- Three discussion papers were commissioned to explore some of the conceptual and operational issues which arose in the tool development stage of the Project:
  1. Toward Standard Definitions of Waiting Times for Health Care Services
  2. Establishing Acceptable Waiting Times for Medical Services: A review of the evidence and proposed methods
  3. Managing Waiting Lists to Achieve Distributive Justice

### **Main Findings:**

- Priority criteria tools in each of the five clinical specialty areas were developed in an iterative manner, with each stage of refinement building on the earlier work. In general, clinicians testing the priority criteria tools felt that they had significant face validity and the potential to be useful in clinical settings. The reliability of the tools was found to be strongest for the general surgery and hip and knee criteria and weakest for the diagnostic MRI scanning criteria. Weights comprising the point-count scoring systems were derived empirically through pilot testing of the forms and were refined based on clinical judgment.
- Interviews with key informants in regional health authorities revealed general support for point-count measures as a transparent and consistent method for assigning priority to patients on waiting lists. Despite evidence of reluctance to initiate change, and questions about the utility of the tools, there was indisputable interest in continuing their development in regional health authority settings.
- Public opinion focus group participants believed that the WCWL tools for patient prioritization represent potential improvement of the health care system. They supported the point-count concept and believed that the tools should be implemented upon completion of developmental work. The mix of clinical and social/role criteria were deemed to be relevant and appropriate. Participants expressed the necessity for clear implementation guidelines and wanted to be involved in and informed about decisions made concerning the health care system.

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## **Conclusion:**

We acknowledge that our activities have not solved the problem of waiting lists and times in Canada. Nonetheless, significant progress has been made both for the five clinical specialty areas studied and at a broader system-wide level. The Western Canada partnership has initiated an innovative process, has made significant progress in the development of valid and reliable tools, and is well informed as to what is left to be done and how to do it. Experience from other jurisdictions has shown that with perseverance, adequate resources and the support of a committed partnership, the overarching mission of the WCWL Project can be achieved.

## **Recommendations:**

In light of the findings and conclusions described in this report, we wish to make the following recommendations:

- that, where governing authorities choose to implement the WCWL priority criteria tools, implementation be carefully monitored and evaluated, ideally to include assessment of validity, reliability, feasibility, acceptability, and benefit to patients in real world settings, and that the results be effectively communicated to relevant stakeholders
- that the federal and western provincial governments and other funding agencies provide continued support to the WCWL Partnership to continue its work
- that the agenda of the WCWL Project be extended as follows to:
  - work in consultation with providers, health authorities, the public, and governments toward establishing acceptable waiting time
  - conduct applied research to study (a) implementation options, (b) change management strategies, and (c) information systems to support development and uptake of the WCWL priority criteria tools
  - develop point-count systems to prioritize referrals to specialists from primary care, or other specialists
  - expand the scope of the priority criteria tools addressed to date, e.g., cataract tool to include other ophthalmologic procedures
  - develop point-count methods for other procedural and diagnostic areas, e.g., gynecologic procedures
  - work to develop approaches to priority setting across diagnostic and procedural areas



- that the Canadian Institute for Health Information (CIHI) be encouraged to partner with applied research groups in cooperation with governments, regional health authorities, providers, and the public, to develop standard measures and definitions for waiting times in Canada.

### **Acknowledgements:**

The 19 WCWL Partner organizations provided constant support throughout all phases of this project. Without their commitment, and that of the clinical and implementation panels and the numerous clinicians in the four western provinces who took part in the pilot and reliability testing, this work could not have been completed.

Complementing the work of the WCWL partners and panel members, many talented individuals participated in various aspects and phases of the work of the Western Canada Waiting List Project.

Overall project management at the University of Alberta was provided by **Mr. John McGurran**; **Ms. Katerina Carastathis** served as the project secretary.

**Dr. David Hadorn** served as research director and co-chair of the clinical panels.

**Ms. Elaine Dunn**, **Dr. Barbara Conner-Spady**, and **Ms. Helen Roman-Smith** participated in priority tool development and testing, and provided valued support in numerous related areas as well.

The three discussion papers were written by **Dr. Claudia Sanmartin** and **Mr. Steven Lewis**.

The completion of the literature reviews and related writing was largely the responsibility of **Ms. Annmarie Banchy** and **Ms. Cheryl Martin**.

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This report accurately reflects the planning, activity, and output of the WCWL Project, as directed by its 19 Partner organizations.

The recommendations contained herein represent the consensus of opinion of the individual representatives of the Partners.

Neither the recommendations nor the text of the report should be construed as necessarily reflecting endorsement by, or the policy of, the Partner organizations.

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## 1.0 INTRODUCTION

Reducing the length of waiting times and eliminating inequities in access to wait-listed services are a prime concern of Canadians.<sup>1</sup> Waiting list anxiety and discourse is a chronic condition in Canada, and at least some patients awaiting care, and their families, do genuinely suffer. But despite this issue's prominence, there is insufficient information on waiting lists and times, and there are few valid tools to aid in determining patients' priority for medical treatment.

In 1998, Health Canada reported that “there is widespread interest in standardizing data and coordinating and integrating waiting lists” and that significant investment is needed in “waiting list infrastructure”(McDonald et al., 1998). The Western Canada Waiting List (WCWL) Project is a federally-funded initiative developed to address these concerns in five clinical areas: cataract surgery; general surgery procedures; hip and knee replacement; MRI scanning; and children's mental health. These represent a range of diagnostic, procedural, and consultative interventions, permitting a comprehensive evaluation of waiting list issues across a broad case-mix.

The mission of the WCWL Project is to improve the fairness of the system so that Canadians' access to appropriate and effective medical services is prioritized on the basis of need and potential to benefit. To this end, the overarching goal of the Partnership is the development of valid, reliable, practical, and clinically transparent measures of patients' priority for wait-listed services. Completion of this work represents an important first step toward a system of better management of waiting lists and measurement of waiting times.

The WCWL Project is unique in the multidisciplinary nature of its Partnership and in the scope of work it has undertaken, providing an opportunity for key stakeholders to work in collaboration on a sensitive and highly relevant health care issue: effective management of waiting lists for elective health care.

We anticipate that there will be considerable interest in the application of the WCWL priority criteria tools, and that the new knowledge developed by this Project will be of interest to the health services research, policy, and management communities.

## 2.0 CONTEXT AND RELEVANCE

Over the past several years, waiting for medical services has been identified as a major problem facing the health care system. Reports of lengthy queues and waits for care have been interpreted as evidence that the health care system is failing and that reasonable access to care is being seriously compromised. As such, governments across the country have been called upon to address the problem.

The WCWL Project was established to address some of the key issues related to waiting for care. The following discussion provides the context within which the Project was established, by:

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<sup>1</sup> See Section 3.5 and Appendix G for discussion.



- defining the issue/problem of waiting lists and waiting times as described in the literature and as it has evolved in Canada
- reviewing policies and strategies adopted to date both within Canada and abroad
- identifying existing information/policy gaps relevant to the Canadian setting

## 2.1 Defining the Problem

Understanding how waiting lists and waiting times are conceptualized, both in the published literature and in Canada, is important to the identification of potential policy solutions. Waiting lists and waiting times are conceptualized in various ways, including the following:

- measures of access to health care services (Fielder, 1981; Daniels, 1984; Amoko, 1990; Coyte et al., 1994; Ho et al., 1995; Buske, 1997)
- mechanisms to allocate and ration health care services (Bloom and Fendrick, 1987; Jacobs and Hart, 1990; Globerman, 1991; Baker, 1994; Light, 1997)
- indicators of unmet need and/or inadequate resources within the health care system (Williams, 1968; Kennedy, 1975; Mason, 1976; Sanderson, 1982; Cullis and Jones, 1983; Goldacre et al., 1987; Frankel, 1991; Mullen, 1994; Naylor et al., 1994; Baume, 1995)

For those who view waiting lists as mechanisms to allocate services, policy options focus on ensuring that waiting lists are properly managed and patients are appropriately prioritized to ensure equitable access to services and reduced adverse effects (Naylor, 1991; Cox, 1994; Naylor et al., 1995).

For those who view waiting lists and times as either evidence of unmet needs or inadequate resources, the policy solution is fairly evident: more resources are required in the health care system to reduce or eliminate the problems associated with waits. This may be achieved by increasing the amount of funding allocated to health care, by increasing the capacity to provide services, or by considering methods of reducing the pressures on those resources within the publicly funded system.

## 2.2 The Canadian Perspective

In Canada, the issue of waiting lists and waiting times has risen to prominence over the last decade as a major problem facing the health system. Problems with waiting lists for medical services have been reported across the country, including:

- a waiting list “crisis” for coronary artery bypass surgery in Ontario that sparked various reforms, including the establishment of the Cardiac Care Network (CCN) (Naylor et al., 1991)

- similar problems in British Columbia, resulting in a contractual arrangement between the Ministry of Health and four Seattle hospitals to provide surgery for up to 200 cardiac patients per year (Katz et al., 1991)
- reports of lengthy queues for cardiac surgery in Alberta and pediatric services in Quebec (Edmonton Journal, 1995; Montreal Gazette, 1995; Calgary Herald, 1996)
- personal accounts of suffering and adverse events experienced by patients waiting for care (Vancouver Sun, 1995; Toronto Star, 1996; Montreal Gazette, 1997)

In many cases, waits for care were seen as one of the major symptoms of inadequate funding within the health care system. As such, calls ensued to restore and/or increase resources to reduce lengthy queues and waits (Edmonton Journal, 1996; Vancouver Sun, 1996; Times Colonist, 1998). In some cases, provincial governments responded by increasing resources for various procedures and specialty groups demonstrating problems with waits (Manitoba Health, 1995; Alberta Health, 1996; CCN, 1997; Ontario Ministry of Health, 1997; BC Ministry of Health, 1997).

The Fraser Institute reported that patients were waiting an ever-increasing length of time for a wide range of medical services, including specialist consultations, diagnostic services, and surgery, and that actual waits often exceeded physician-defined “clinically reasonable” waits (Ramsay and Walker, 1996-1998). Other reports were not consistent with this (The Guardian, 1997; Vancouver Sun, 1997; The Province, 1997). In Nova Scotia, for example, waits for a broad range of services, including hip and knee replacement, had in fact decreased since 1996 (Nova Scotia, 1997).

This uncertainty regarding waits for care led Health Canada to commission a report to review and synthesize information from published and unpublished literature and from key informants. The study, conducted by a coalition of health services researchers, included surveys of hospitals, regional health authorities, Ministries of Health, and other agencies across the country. Most agreed that waiting lists could be used to monitor patient access to services. Waiting lists were reported to be consistently problematic for procedures such as MRI but only occasionally a problem for procedures such as hip and knee replacement and cataract surgery. Standardization of assessment criteria was identified by respondents as one of the strategies that would most effectively address the issue of waits (McDonald et al., 1998).

### 2.3 National and International Experience

Various policies and strategies have been adopted both within Canada and abroad to address the issue of waiting lists and waiting times. The experiences and lessons learned to date serve to identify the major information gaps and guide the formulation of health policy.

**Canada:** Prior to the initiation of the WCWL Project, certain provinces adopted policy strategies to address the issue of waits for care. Perhaps the most notable was the establishment of the Cardiac Care Network (CCN) in Ontario. The primary purpose of the CCN is to coordinate and manage patients waiting for cardiac surgery, catheterization, and angioplasty in twelve surgical



and catheterization centres across the province, using a standard prioritization scheme and central registry. Experience to date suggests that the system has effectively prioritized patients, reduced waiting times, and minimized adverse critical events (Naylor, 1991; CCN, 1997).

Several provinces have focused on establishing information systems that provide an account of the waiting situation in their respective jurisdictions (e.g., the BC Surgical Waiting List Registry). In Nova Scotia, health administrative data are used to estimate waiting times for a broad range of services. For cardiac services, a single waiting list is used to prioritize and manage the patient caseload (Nova Scotia, 1997).

**International:** In the United Kingdom, national waiting list information for in-patient services has been collected since the 1970s and aggregate waiting times are provided through quarterly reports (Department of Health, 1997). In the late 1980s, the department introduced the Waiting List Initiative, a national funding strategy to eliminate waits exceeding two years. In 1992, the Patient Charter was introduced to establish national standards for acceptable waits; the guarantee was revised in 1995 to ensure access to all hospital-based services within 18 months and to cardiac services within 12 months (NHS, 1995).

Similarly, Sweden introduced the Maximum Waiting Time Guarantee in the early 1990s. This policy assured patients meeting specified criteria of access to care within three months for selected procedures. In both the United Kingdom and Sweden, evidence suggests that these policies had an effect in reducing lists and waits, but only in the short-term. They were also associated with paradoxical but perhaps predictable effects. For example, implementation of the UK Patient Charter did clear backlogged patients, but at the same time caused waits among other patients to increase (Mill et al., 1991; Lee et al., 1992; Appleby, 1993; Umeh et al., 1994; Mobb et al., 1994; Newton et al., 1995; Hanning et al., 1996; Lundstrom et al., 1996).

New Zealand adopted a more direct management approach to address the issue of waits for care by focusing on the development of priority criteria. Efforts began at the local hospital level with the introduction of a prioritization scheme for coronary artery bypass surgery (Agnew et al., 1994). Several existing prioritization models were considered, including the method developed by Canadian researchers and clinicians (Naylor et al., 1991). In 1992, the National Advisory Committee on Health and Disability, in cooperation with the four regional health authorities, began work on the development of national criteria to prioritize patients in a consistent and transparent manner based on key clinical and social factors. A weighted scoring scheme was developed with a total score (0-100) provided for each patient. Thresholds were also established for publicly funded treatment, with alternative paths of care suggested for patients falling below the defined threshold (Hadorn et al., 1997a, b).

## 2.4 Information and Policy Gaps

Various policies have been adopted to address waits for care. Based on the limited information available, it is evident that increased resources alone have not resolved the problem of waiting

lists. Policies based on increased and targeted funding adopted both abroad and in Canada have often been unable to produce a long-term sustained reduction in waits.

Despite funding allocations and other efforts to date, waiting lists and waiting times remain a problem in the Canadian health care system. Given the policies adopted to date and the lessons learned from the international experiences, there are several key information gaps which must be addressed to advance the development of effective policy solutions that will improve equitable and reasonable access to health care services in Canada. These are summarized as follows:

### **Standardized Patient Prioritization**

Patient prioritization was identified as one of the key strategies to effectively manage waiting lists for medical care. In Canada, patient prioritization is not standardized or universal for most medical services. Perhaps the only exception is the patient prioritization model introduced by the CCN in Ontario for cardiac services. Results of a national survey of hospitals, regional health authorities, Ministries of Health, and other agencies revealed that, with few exceptions, standardized criteria are not being used to prioritize patients (McDonald et al., 1998).

The absence of standardized criteria and methods to prioritize patients waiting for care means that patients may be placed and prioritized on waiting lists based on a range of clinical and non-clinical criteria that may vary across institutions, health regions, and provinces. This situation inevitably leads to concerns regarding unnecessary risks faced by patients who may not be getting necessary care in a timely fashion. If patients are not receiving such care on the basis of relative need and capacity to benefit, then the principle of equitable access to care is violated. It is imperative, therefore, that one of the key policy initiatives to address the issue of waiting lists focuses on the development of standard criteria that may be universally adopted to prioritize patients.

### **Standard Definitions of Waiting Times**

One of the major obstacles to understanding the true state and extent of waiting for care in Canada's health care system is the absence of accurate and comparable waiting list information. While waiting time information is available in selected jurisdictions for certain procedures, the definitions that form the basis of, and methods used to collect the information, are highly variable. It is difficult, therefore, to assess the accuracy of the information and almost impossible to compare data across jurisdictions and within specialty groups.

There is currently no universally accepted method to measure or define waiting times for medical services in Canada. Before we can begin to determine the extent of the problem and develop and evaluate various strategies to address the issue, there must be a level of agreement regarding the accuracy of the information and the definition of the waiting period. The establishment of such standards will go a long way to improving the comparability of waiting time information and the management of waiting times in Canada.

### **Standards for Acceptable Waits**

Internationally, policies establishing waiting time guarantees have been adopted in several health care systems to reassure patients that they would not have to wait excessive periods of time to



access medical care services. In Canada, patients are guaranteed reasonable access to health care under the Canada Health Act. Timeliness is one of the most important measures of accessibility. Reports of lengthy waits for care and of patients suffering adverse effects raise valid concerns regarding the ability of the health care system to meet this guarantee.

There are currently no universal standards for “acceptable” waits in Canada for most health care services. It is difficult, therefore, to determine precisely when patients have waited an unreasonable or unacceptable length of time to access care. Many agree that standards are required and that they should be based on clinical evidence to ensure that patients do not suffer adverse clinical effects due to waiting (McDonald et al., 1998). In addition to the clinical evidence, standards for waiting times must be acceptable to a broad range of groups including patients, providers, and the funders of health care who are responsible for ensuring that the standards are met. The first step in the establishment of standards for acceptable waits should focus on bringing together current evidence and varied perspectives on the topic.

## **2.5 Objectives of the WCWL Project**

The WCWL Project was proposed to address the information gaps identified above and improve the way waiting lists are structured, managed, and perceived in Canada. Specifically, the Project sought to address the current information gaps by focusing on the following objectives:

- design and evaluate a set of valid, reliable, and practical tools that will generate the necessary information to support the management of waiting lists for selected procedures and interventions
- give consideration to the issues and implications involved in dealing with prioritization across treatments and procedures
- obtain an indication of the views of the general public and the regional health authorities’ management on the current state of waiting for elective or planned procedures as well as on the proposed WCWL priority criteria tools
- initiate discussion leading to the development of standard definitions for waiting times for selected procedures
- initiate discussion leading to the development of a methodology to establish acceptable waits for a broad range of procedures

## **3.0 PROJECT ACTIVITIES**

To address these objectives, the Project has focused on five main deliverables:

1. formation of a partnership of key stakeholders in Western Canada health care, including the development of five multidisciplinary clinical panels with appropriate representation from the clinical specialties, provinces, and regional health authorities

2. development and evaluation of physician-scored waiting list priority criteria tools within each of the five clinical disciplines, with consideration given to issues that will support setting priorities across clinical disciplines
3. assessment of the clinical acceptability and potential for implementation of the WCWL priority criteria tools in the seven participating regional health authorities
4. assessment of public opinion regarding the priority criteria tools and their potential implementation
5. initiation of discussion regarding the development of standard definitions for waiting times and of a methodological approach to the establishment of acceptable waits for a broad range of procedures

### **3.1 Establishment of an Effective Partnership**

The Western Canada Waiting List Project is a collaborative undertaking by 19 partner organizations: seven regional health authorities (RHAs), four medical associations, four provincial ministries of health, and four health research centres. The partner organizations and their representatives are identified in Appendix A.1.

This partnership was established in November 1998, when a WCWL-sponsored conference in Calgary brought together a group of researchers, physicians, and officials from regional health authorities, medical associations, and governments to describe the research agenda and develop a project infrastructure. This culminated in the formation of the WCWL Steering Committee with a mandate to provide direction and oversight of the research agenda. The Steering Committee has met on a monthly basis, typically by teleconference, since March 1999. Its members are identified in Appendix A.2.

Following recruitment of the Research and Project Directors in early 1999, a method was developed to identify regional health authorities to serve as host centres for five clinical panels and to select co-chairs and members. Host sites were: Saskatoon, cataract surgery; Winnipeg, general surgery; Edmonton, hip and knee replacement; Calgary, MRI scanning; and Vancouver, children's mental health.

Optimal panel size was set at 13 members; this included two co-chairs (clinical and research leadership), specialists typically involved in the care path, family physicians, and health administration or research representation. Approximately half of the members were drawn from the host regional health authority, with the remainder from other centres across Western Canada. The first meetings of the five clinical panels took place in Calgary in mid-October 1999, with two subsequent meetings in early 2000. The mandate of the panels was to develop priority criteria tools for their respective clinical disciplines. Membership of the panels can be found in Appendix A.3.



In July 2000, an Implementation Panel was established to provide advice on the potential for implementation of the priority criteria tools. Its membership included representation from the five multidisciplinary clinical panels as well as senior administration from the seven WCWL regional health authorities (see Appendix A.4).

At its annual meetings in June 1999 and July 2000, the WCWL Partnership endorsed the work done to date and provided direction for subsequent activities. At its final meeting on March 16, 2001, representatives of the partner organizations reviewed and accepted the final report recommendations, within the context of the caveat provided at the beginning of the report.

### **3.2 Development of Priority Criteria Tools**

The development of the priority criteria tools was an iterative process, involving several stages of clinical input and empirical assessment of validity and reliability. Current versions of the five tools are provided at the end of this report and in Appendix B.

#### **3.2.1 Selection of Criteria Items**

In the initial phase of the Project, panelists identified the major clinical factors or criteria relevant to judgments of patients' relative urgency (e.g., degree of pain), as well as clinically appropriate levels within each criterion (e.g., none, mild, moderate, severe) reflecting different degrees of severity. The first drafts of the tools were comprised of eight to ten criteria items each, except for the children's mental health tool, which had 21 items. All panels incorporated personal and social role measures into their draft priority criteria forms, e.g., ability to work, ability to care for self or dependents, and ability to live independently. The tools were designed to be physician-scored.

None of the five panels considered age, gender, or other socio-demographic characteristics to be appropriate for inclusion in the priority criteria forms. These were not viewed as relevant considerations when assessing the urgency of patients for treatment and surgery.

Two additional items were included with each set of criteria to serve as indicators of overall clinical urgency: a 10-centimetre visual analogue scale ranging from not urgent to extremely urgent, and a category rating item in which a patient's relative urgency was compared with the average in the clinician's practice.

At the end of the first series of panel meetings, draft versions of the five priority criteria tools were prepared for empirical testing. The panels endorsed the development of point-count scoring systems for the tools; the intention was that, for each tool, maximum weighted scores on the total of all the criteria would sum to 100 points.

Literature reviews were prepared to support panel deliberations. These covered cataract surgery, hip and knee replacement, and laparoscopic cholecystectomy and were distributed to panelists at

their first meeting. Subsequent reviews were prepared for the general surgery panel on breast cancer, colorectal cancer, and inguinal hernia. Panelists considered these reviews relevant and important but few examples were identified in which the reviews played a significant role in the identification of priority criteria or levels. The literature reviews are provided in Appendix C.

### **3.2.2 Phase I Pilot Testing and Validity Work**

The empirical phase of the project began in November 1999 for cataract surgery, general surgery, hip and knee replacement, and MRI, and in early January 2000 for children's mental health. This phase consisted of pilot testing the draft tools in clinical practice to determine the extent to which the criteria were relevant to the assessment of patients' relative urgency and whether any important factors were omitted, and to ensure that the criteria were unambiguous. Clinical panel members and a number of their colleagues completed draft priority criteria forms on a series of consecutive new patients in their practices.

Pilot testing provided the data needed to calculate weights for each of the priority criteria; the response to the 10-centimetre visual analogue rating of urgency served as the dependent variable in regression analyses.

Results of the preliminary data analyses were reviewed at the panel meetings held between January and March 2000. An average of 175 (range: 152-217) cases per panel were completed. Pilot testing continued through April 2000, resulting in 2690 priority criteria forms (mean per panel=538) rated by 146 participants. An interim statistical report was presented to panelists in a series of teleconferences and the final report was discussed at the June 2000 panel meetings. Linear regression analyses were performed using the optimal scaling method of the SPSS statistical software (Version 10) to determine the set of criteria weights that collectively best predicted clinicians' overall urgency ratings. The weights represented the relative contribution of each criterion to the total urgency score.

In a related exercise, clinicians were asked to grade each patient on a five-level urgency scale ranging from much less urgent than the average patient to much more urgent than the average patient. Priority criteria scores were calculated for each patient by summing the individual weighted items. Only cases with complete data were included in the analysis. The relationship between priority scores and the relative priority on the five-level scale was examined for each tool.

### **3.2.3 Phase I Reliability Work**

Further empirical work was undertaken to evaluate the degree of inter-rater reliability associated with use of the priority criteria tools. In June 2000, 73 panelists and colleagues participated as raters in the reliability testing. For the surgery panels, participants viewed videotapes of interviews and examinations of scripted or actual patients; for MRI and children's mental health,



raters read patient cases developed by the panel co-chairs. Six scenarios were developed for each panel.

Data included ratings on each criterion and the visual analogue urgency score for each patient. As well, raters were asked to estimate a maximum acceptable waiting time for each patient, and to provide a relative ranking of all six patients. The intraclass correlation coefficient (ICC) and Kappa statistics were used to evaluate the degree of inter-rater reliability for criteria items.

Panel members also reviewed and scored two of the reliability testing cases at the June 2000 panel meetings, and discussed their ratings and observations about the criteria. This process provided additional information used to refine the criteria and their descriptions.

### **3.2.4 Phase I Refinement of Criteria and Weights**

The results of the Phase I pilot testing and reliability work were reviewed at the June 2000 panel meetings, and revisions were made to the priority criteria items and associated weights. In refining the priority forms, consideration was given to the deletion, modification, and combination of questions or response options. Weights obtained using statistical analysis were in many cases adjusted by the panels to improve clinical sensibility and face validity.

### **3.2.5 Phase II Reliability Work**

A second phase of reliability testing was conducted to assess inter-rater reliability for the revised tools. The protocol also allowed an evaluation of test-retest reliability. As with the Phase I reliability work, videotaped and paper case scenarios were scored by raters, and information was obtained on maximum acceptable waiting times and relative urgency of the cases. The scenarios were identical to those presented in June 2000 for all panels except children's mental health, for which the cases were revised to provide a greater range of severity. For all panels, the order of the scenarios was changed to control for order effects. Draft user guides accompanied the majority of the tools (see Appendix D).

Reliability data were provided by clinicians and other health-related professionals from the seven partner RHAs, including both new and experienced raters. For MRI, participation was restricted to referring clinicians in the neurological/neurosurgical specialties, to correspond with the predominantly neurological paper cases.

For two panels (cataract surgery and hip and knee replacement), the test-retest comparison was made with the June 2000 ratings (i.e., a five-month interval), since the instruments had undergone minimal refinement at the June panel meetings. For the three panels with more extensive tool revisions (general surgery, MRI, and children's mental health), there were two rounds of reliability testing in Phase II, with a two-month interval between the test and retest ratings. Seventy-two panelists and colleagues participated in the Phase II reliability work, with 54 of these providing test-retest data.

In addition, reliability focus sessions were conducted for all panels except hip and knee replacement. In these sessions, 28 raters scored selected scenarios and discussed their ratings in order to clarify ambiguities in the priority criteria tools or instructions, and to identify opportunities for future improvement of the instruments.

### **3.2.6 Initiation of Phase II Pilot Work**

Panelists expressed an interest in proceeding with a second phase of pilot work to further examine the usability and validity of the priority criteria tools. A host site was identified for each of the five specialties, and WCWL provided assistance for the initiation of pilot studies in each of these sites, as follows: cataract surgery (Vancouver); general surgery (Winnipeg); hip and knee replacement surgery (Edmonton); MRI (Calgary); and children's mental health (Vancouver).

Data collection procedures were designed to be similar to the Phase I pilot work, with participating specialists completing priority criteria forms to rate consecutive patients in their practices. Protocols varied across panels and included the collection of measures of waiting times, health-related quality of life, patient and physician perception of urgency and maximum waiting time, and outcome measures (cataract only) to assess aspects of the validity of the criteria tools.

MRI pilot work was initiated in the Calgary Regional Health Authority in October 2000, and an interim analysis of data from a sample of 2438 cases booked for MRI was completed in February 2001. Pilot work for hip and knee replacement surgery and general surgery was initiated in December 2000 and January 2001, respectively. Completion of the various pilot studies is the responsibility of the participating host sites, but study findings will be made available to WCWL for the dissemination phase of the Project.

### **3.3 Environmental Scan of Regional Health Authorities**

In July 2000, an Implementation Panel was established to provide advice on the potential for implementation of the priority tools. To this end, the panel commissioned an environmental scan to obtain information on the clinical acceptability and potential for implementation of the WCWL priority tools in the seven participating RHAs. The scan examined:

- current practices regarding how patients are entered onto a waiting list
- the acceptability of the WCWL point-count measures
- attitudes toward and opinions about the implementation of the WCWL priority tools

Other important aspects of implementation, including the need for technical and information system support, or the compatibility of regional and provincial systems, were not discussed.



Information was gathered through in-person semi-structured interviews with key informants in participating RHAs, including the chief executive officer, the chief medical officer or alternate(s), and the clinical head, administrative head, and booking clerks for at least each of two clinical service areas. The identification of key contacts was facilitated by the members of the WCWL Implementation Panel.

Interviews were conducted in the regional health authorities between December 20, 2000 and January 23, 2001. Background material, including an interview guide, was provided in advance. The interview guide (see Appendix E) was developed by the Steering Committee and the Implementation Panel. Interviews varied in length from 45 to 90 minutes, and were conducted by two WCWL interviewers. Thirty-nine interviews were completed, typically with one (n=21) or two (n=14) respondents at a time; the largest interview was conducted with a group of seven. In total, 66 respondents participated; 19 (29%) of the interviewees were members of one or more WCWL panels or committees.

### **3.4 Public Opinion Focus Group Research**

Public opinion focus group sessions were conducted in Victoria, Vancouver, Calgary, Edmonton, Regina, Saskatoon, and Winnipeg between February 5 and 16, 2001. The primary objective was to obtain non-clinical feedback from the general public on:

- perceptions of the current state of waiting times and waiting list issues
- feedback on the five priority tools
- issues relating to implementation of the tools
- general recommendations to the WCWL team

The methods for the study are described in the report provided in Appendix F. Focus session participants were randomly recruited through household telephone contacts. Screening criteria were utilized to ensure that a broad age range and socio-economic and gender mix participated in the study. Participants were selected if they were at least somewhat concerned about health care waiting times. Health care workers or their family members, and those working in market research, media, or advertising were not eligible to participate.

A total of 66 people attended the seven meetings. One moderator conducted all sessions to maintain a consistent approach. To initiate the group discussion and provide a point of reference regarding key issues, participants were asked a series of general questions related to current waiting time issues. Participants were then introduced to the WCWL Project and the tools, two of which were reviewed at each site. After reviewing each priority form, participants provided written feedback and rated each on a scale of 1 to 10, with 1 meaning “completely unreasonable and unacceptable” and 10 meaning “completely reasonable and acceptable.”

After a thorough review of the priority criteria tools, participants were asked a series of questions related to the possible implementation of the tools and were provided an opportunity to communicate their final thoughts about the topics discussed.

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### 3.5 Preparation of Discussion Papers

Three discussion papers were prepared to explore some of the conceptual and operational issues that arose in the tool development stage of the project. The papers complement the empirical work and provide a comprehensive overview of key waiting list issues. The three papers are provided in Appendix G:

- **Discussion Paper #1: Toward Standard Definitions of Waiting Times for Health Care Services**

The need for a commonly accepted applied standard definition of waiting time was featured as the first priority of the WCWL June 1998 submission to the Health Transition Fund. The primary purpose of this paper was to lay the groundwork for the development of standard definitions in each of the five clinical areas. This paper also addressed related issues, challenges, and processes and proposed a set of definitions for further consideration.

- **Discussion Paper #2: Establishing Acceptable Waiting Times for Medical Services: A review of the evidence and proposed methods**

The lack of standard, non-arbitrary, and acceptable waiting times for elective health procedures has been identified as a serious concern. This discussion paper focused primarily on the issues and methods related to the establishment of acceptable waiting times for selected medical services. The work began with a review of international experiences regarding the establishment of acceptable waits and the effects of these policies on waiting lists and times as well as on other sectors within the health care system. The paper also addressed key issues associated with the establishment of acceptable waiting times such as the effects of treatment delay on patients awaiting care and on the outcomes once they have received care, as well as the potential uses of acceptable waiting time targets at both the clinical and policy level. The work concluded with a presentation of proposed methodologies for the establishment of acceptable or reasonable waits.

- **Discussion Paper #3: Managing Waiting Lists to Achieve Distributive Justice**

This paper addressed the need to look across the domains for which the individual tools have been developed. Specific questions are: what problems of distribution and emphasis across services emerge; are prioritization tools that rank patients in order of need sufficient, or is it essential to establish thresholds for intervention and entitlements to service; and, do those responsible for overall system management need tools to manage waiting lists collectively across the various spheres of activity?

## 4.0 PROJECT RESULTS

Key findings associated with the WCWL Project deliverables are presented in this section along with recommendations arising from the findings.



## 4.1 Establishment of an Effective Partnership

The project has witnessed the development of an unprecedented partnership of governments, regional health authorities, and research and clinical communities striving to create tools that will improve the timeliness and equity for elective patients needing health care. It has, to date, made significant progress in the development and testing of five priority criteria tools that promise to have widespread application as the basis for prioritizing patients awaiting an array of services.

Representatives of the 19 partner organizations met annually to discuss progress and future plans and were consulted regularly by project management. Participation remained constant throughout, and interest in continuing with tool development and implementation projects remains high.

The project has also extended its contacts internationally, collaborating with researchers in Australia, Italy, New Zealand, Spain, and the United Kingdom having similar interests in waiting list management issues.

Support has been expressed by all parties for continuation of the WCWL Partnership, with the purpose of conducting a program of research and evaluation, building on the achievements over the past two years. Thus, it is recommended:

- **that the federal and western provincial governments and other funding agencies provide continued support to the WCWL Partnership to continue its work**

## 4.2 Development of Priority Criteria Tools

### 4.2.1 Phase I Pilot Testing and Validity Work

The initial phase of pilot testing provided quantitative and qualitative input from participating clinicians who were involved in assessing patients using the agreed criteria. In general, participants felt that the criteria had face validity and that the forms proved practical for use in clinical settings. The priority criteria forms were designed to be completed by a clinician during or immediately following a patient consultation and the process was not judged to be overly time-consuming.

Interim analysis of the data, conducted between January and March 2000, was based on 876 completed forms. Following review of the interim results, panelists made changes to the hip and knee replacement priority criteria; the forms remained unchanged for the remaining panels.

Results of the quantitative component are summarized in Table 4.1. The final analyses conducted for the June 2000 panel meetings were based on a total of 2690 completed forms, ranging from 406 forms for hip and knee replacement to 766 for children's mental health. Data were obtained from 146 participating clinicians. The analyses provided frequency distributions for each of the

criteria and empirically derived weights for each response level within each of the criteria (data not shown). The R-square statistics derived in regression analyses are reported in Table 4.1. The results indicate that the tools accounted for approximately 36% (cataract and MRI) to 62% (hip/knee) of the statistical variance in the urgency ratings, when the visual analogue scale (VAS) urgency scores were regressed on the criteria variables.

**Table 4.1 Historical Summary of the Priority Tool Development**

Priority Criteria Form	First Panel Meeting	Final Panel Meeting			
	Original Tool (Oct. 1999)	Pilot Testing (June 2000)		Analyses	Revised Tool (June 2000)
	Items <sup>1</sup>	Sample Size	Clinicians (n) <sup>3</sup>	R <sup>2</sup>	Items <sup>1</sup>
Cataract Surgery	9	550	9	35.6	7
General Surgery	8	561	13	51.4	7
Hip & Knee Replacement	8 <sup>2</sup>	406	17	62.1	7
MRI	10	407	15	36.5	5
Children's Mental Health	21	766	92	41.7	17
<b>Total</b>		<b>2690</b>	<b>146</b>		

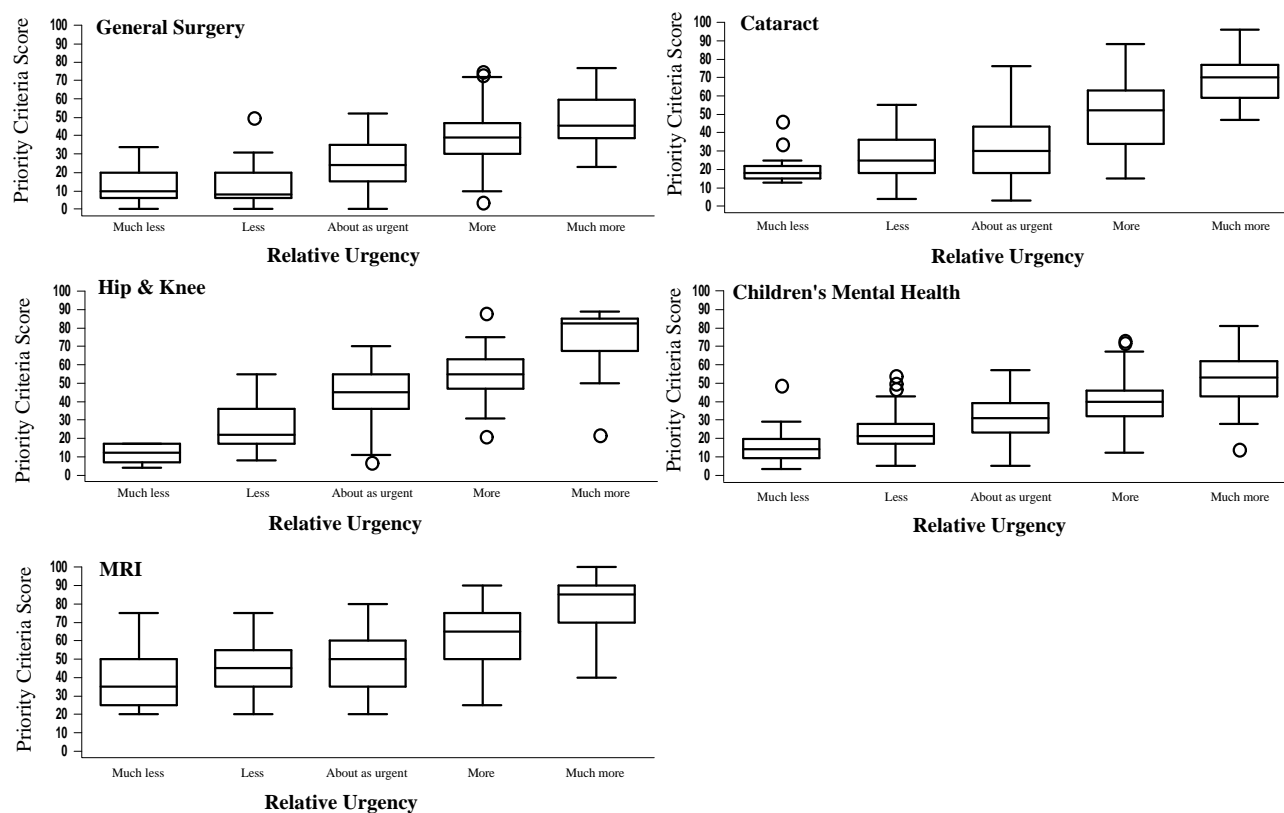
<sup>1</sup> Totals do not include the response variables used to gauge overall urgency (VAS).

<sup>2</sup> Tool revised at January meeting: two items combined into one, one item deleted, and one item added.

<sup>3</sup> Number of clinicians contributing completed forms to the data collection.

In an additional examination of relative priority, physicians rated each patient on a five-level scale of urgency. A weighted summative priority criteria score (PCS) was computed for each patient and the relationship between the five-level scale and the PCS was examined for each tool. Figure 4.1 shows boxplots of the distribution of the scores plotted against the five levels of relative urgency. The box represents the interquartile range that contains 50% of the values. The whiskers are lines that extend from the box to the highest and lowest values, excluding outliers. A line across the box indicates the median and the circles represent outliers. Although each graph shows an increasing priority criteria score with increasing relative urgency, there are varying degrees of discrimination between levels of relative urgency. This will be investigated further in the Phase II validity work.

**Figure 4.1 Relationship Between Relative Urgency and Priority Criteria Score**



#### 4.2.2 Phase I Reliability Testing

Results from the initial phase of reliability work are summarized in Table 4.2. For MRI and children's mental health, data are presented for all raters; for the surgical panels, data are reported for surgeons only. The number of raters varied from nine to 18 across the five panels.

The intraclass correlation coefficient (ICC) was used to assess inter-rater reliability. Table 4.2 shows, for each tool, the distribution of items categorized according to ICC values. Over all tools, 24% of the items resulted in an excellent reliability rating (ICC > 0.75), 45% were fair to good (ICC 0.40-0.75), and 31% were poor (ICC < 0.40). Inter-rater agreement was also assessed for the visual analogue scale (VAS) urgency scores and the relative ranking task. For these tasks, ICC values were excellent (>0.75) for the general surgery and hip/knee replacement priority criteria tools and lowest for the MRI and children's mental health tools. In view of the findings, the panels suggested that further reliability work with MRI should focus on referring clinicians as raters rather than a mix of radiologists and referring clinicians, and that the children's mental health cases be revised to cover a broader range of severity. It was also noted that the reliability of these latter tools was assessed with paper cases, in contrast to the videotape presentations used by the other panels.

Raters were also asked to indicate a suggested maximum waiting time for each of the reliability cases. As shown in Table 4.2, ICC values were relatively low for this task.

**Table 4.2 Results of Phase I Reliability Testing**

Panel	Raters	Process	Distribution of items by ICC <sup>1</sup> scores <sup>2</sup>			Ranking <sup>3</sup>	VAS Urgency <sup>4</sup>	Maximum Waiting Time <sup>5</sup>
			>.75	.40-.75	<.40	ICC	ICC	ICC
<b>Cataract Surgery</b>	10 surgeons	Videotape	4	2	3	n/a	0.51	0.35
<b>General Surgery</b>	9 surgeons	Videotape	4	3	1	0.85	0.76	0.58
<b>Hip &amp; Knee Replacement</b>	14 surgeons	Videotape	1	6	0	n/a	0.85	0.41
<b>MRI</b>	9	Paper cases	1	4	5	0.18	0.03	0.00
<b>Children's Mental Health</b>	18	Paper cases	3	10	8	0.29	0.26	0.30
<b>Total</b>			<b>13</b> (24%)	<b>25</b> (45%)	<b>17</b> (31%)			

<sup>1</sup> Intraclass correlation coefficient – ranges from 0 to 1, with higher values indicating better reliability.

<sup>2</sup> Number of criteria rated: Cataract surgery (9); general surgery (8); hip and knee replacement (7); MRI (10); and children's mental health (21).

<sup>3</sup> Relative ranking of all six cases on a visual analogue urgency scale. n/a: not available.

<sup>4</sup> VAS is 10-cm. visual analogue urgency scale, recorded for each of the standardized cases.

<sup>5</sup> Maximum waiting time is raters' judgment of the maximum acceptable waiting time for each of the standardized cases.

### 4.2.3 Phase I Refinement of Criteria and Weights

Information from the Phase I reliability assessments and validity work was used as the basis for discussions to refine the instruments during the June 2000 panels meetings. Consideration was given to the inter-correlation of criteria items, ease of administration, and the item weightings derived through regression analyses.

The amount of tool refinement varied across panels. The most extensive revisions were to the general surgery, MRI, and children's mental health tools. Changes to the original tools included the combination, addition, or deletion of items, resulting in a decrease in criteria items for all tools (see final column of Table 4.1). Revisions were made to improve the wording of the questions and response levels, and to clarify the criteria by adding or modifying parenthetical examples. A supplementary item used in each original tool to gauge relative urgency



(comparisons against clinicians' average patients) was deleted because it proved to correlate highly with the VAS urgency score. The items used during the reliability testing phase regarding clinicians' judgments of maximum acceptable waiting times were added to the tools for use during the next phase of development.

Weights obtained from regression analyses were adjusted by the panels during the June meetings to improve clinical sensibility and face validity. The complete set of weights assigned to all levels of the criteria for each form is reported in the priority criteria forms included at the end of this report and in Appendix B. Weights assigned to the most severe of the response levels of each criterion are depicted in the last column of Table 4.3.

#### **4.2.4 Phase II Reliability Testing**

Results of Phase II inter-rater reliability testing are also summarized in Table 4.3. The number of raters varied from seven to 13 across the five panels. For MRI and children's mental health, data are presented for all raters; for the surgical panels, data are reported for surgeons only.

The table reports intraclass correlation coefficient (ICC) values for individual criteria items for each of the tools. Over all tools, 39% of the items resulted in an excellent reliability rating (ICC > 0.75), 29% were fair to good (ICC 0.40-0.75), and 32% were poor (ICC < 0.40). Inter-rater agreement is also reported for the visual analogue scale (VAS) urgency scores for each tool. Reliability was highest for the general surgery, hip/knee replacement, and children's mental health tools. The lowest level of agreement was observed for the MRI tool, but these results should be interpreted with caution due to incomplete data.

There was some improvement over Phase I reliability findings, with 39% of items having excellent reliability compared to 24% in Phase I. For MRI, the ICC values for VAS ratings were consistently low, and the distributions were skewed toward poor ICC scores in both phases. It should be noted that three of the five MRI criteria required probability estimates, posing a particular challenge for raters. For children's mental health, both the instrument and the cases changed in Phase II, so comparisons with Phase I were not meaningful.

Findings of the test-retest reliability analyses are also depicted in Table 4.3, with ICC values shown for each item. Fifty-five percent of the item ICCs were in the excellent range. The results suggested a relatively high degree of intra-rater consistency in scoring at two points in time, with a two-month interval between ratings for children's mental health and general surgery and a five-month interval for hip and knee replacement surgery. Test-retest reliability appeared weaker for cataract surgery.

In addition to the quantitative work, reliability focus sessions were conducted for four of the five panels, bringing together panel members and colleagues having no previous experience with the WCWL tools. Participants reviewed cases and discussed their ratings. These discussions led to further tool refinement for children's mental health, as well as suggestions for modifications and additions to the user guides for most of the panels.

**Table 4.3: Phase II inter-rater and test-retest reliability and criteria weights**

Clinical Specialty	Item	Inter-rater reliability	Test-retest reliability <sup>2</sup>	Maximum Weight <sup>3</sup>
		Raters/ ICC <sup>1</sup>	Raters/ ICC <sup>1</sup>	and Phase I R <sup>2</sup>
<b>CATARACT SURGERY:</b>		<b>8 Ophthalmologists</b>	<b>8 Ophthalmologists</b>	<b>Phase I: R<sup>2</sup> = 35.6</b>
	1a. Best corrected visual acuity: Right eye	1.00	1.00	11 (Operated eye)
	1b. Best corrected visual acuity: Left eye	1.00	1.00	17 (Non-operated eye)
	2. Glare	.18	.35	18
	3a. Ocular comorbidity: age-related macular degeneration	.96	n/c	-15
	3b. Ocular comorbidity: other forms of comorbidity	1.00	n/c	2
	4. Extent of impairment in visual function	.64	.72	23
	5. Other substantial disability	.30	n/c	10
	6. Ability to work or live independently or care for dependants	.11	.23	19
	7. VAS urgency	.44	.74	
<b>GENERAL SURGERY</b>		<b>10 Surgeons</b>	<b>10 Surgeons</b>	<b>Phase I: R<sup>2</sup> = 51.4</b>
	1. Usual frequency of painful episodes/suffering	.67	.77	9
	2. How intense is the pain at its worst	.82	.83	11
	3. Usual intensity of other forms of suffering	.70	n/c	12
	4. Degree of impairment in usual activities	.77	.74	15
	5. Recent history of major complications or significant exam/test results	.34 (Kappa)	.33 (Kappa)	8
	6. Life expectancy implications of condition without procedure	.86	.89	25
	7. Expected improvement in life-expectancy with surgery	.56	.67	20
	8. VAS urgency	.83	.92	
<b>HIP AND KNEE REPLACEMENT</b>		<b>8 Orthopedic Surgeons</b>	<b>6 Orthopedic Surgeons</b>	<b>Phase I: R<sup>2</sup> = 62.1</b>
	1. Pain on motion	.65	.71	13
	2. Pain at rest	.78	.82	11
	3. Ability to walk without significant pain	.84	n/c	7
	4. Other functional limitations	.76	.71	19
	5. Abnormal findings on physical exam related to affected joint	.74	.80	10
	6. Potential for progression of disease documented by radiographic findings	.26	.64	20
	7. Threat to patient role and independence in society	.74	.79	20
	8. VAS urgency	.73	.92	
<b>MRI</b>		<b>7 Neuro-specialists</b>	<b>7 Neuro-specialists</b>	<b>Phase I: R<sup>2</sup> = 36.5</b>
	1. Usual duration/frequency/intensity of pain and/or suffering	.60	.75	20
	2. Severity of illness/impairment	.34	.69	20
	3. Probable time course of clinical deterioration	.11	.50	20
	4. Probability of providing clinically significant diagnostic information	.00	.76	20
	5. Probability of successful treatment from diagnostic information	.00	.62	20
	6. VAS urgency	.38	.68	
<b>CHILDREN'S MENTAL HEALTH</b>		<b>13 Raters</b>	<b>13 Raters</b>	<b>Phase I: R<sup>2</sup> = 41.7</b>
	1. Danger to self	.91	.91	10
	2. Danger to others	.66	.83	2
	3. Psychotic symptoms	.80	.88	11
	4. Global age-appropriate developmental progress	.07	.77	1
	5. Children's GAF score	.80	.83	12
	6. Internalized symptoms	.77	.80	14
	7. Externalized/disruptive behaviour	.80	.84	4
	8. Comorbid medical conditions	.28	.68	2
	9. Comorbid psychiatric conditions	.18	.46	6
	10. Harmful substance use/misuse	.69	.80	1
	11. Significant biological family history of mental illness	.46	.66	2
	12. School and/or work	.75	.86	1
	13. Social/friendships/community functioning	.81	.85	1
	14. Does the patient have problems in the context of the home?	.32	.63	6
	15. Family functioning or factors affecting child	.16	.69	1
	16. Prognosis without further intervention	.84	.83	11
	17. Degree of likely benefit with further intervention	.19	.67	15
	18. VAS Urgency	.71	.85	

<sup>1</sup> Intraclass correlation coefficient - ranges from 0 to 1, with higher values indicating better reliability.

<sup>2</sup> Analyses were conducted on items that were identical in both test and retest ratings; n/c = not computed.

<sup>3</sup> Weight given to the most severe response category for each of the criteria items.

#### 4.2.5 Phase II Pilot Testing and Validity Work

Pilot work was initiated in the Calgary Regional Health Authority in October 2000, with referring clinicians using the priority criteria tool to score patients booked for MRI scanning. The Phase II MRI dataset included 2438 patients (17% inpatients and 83% outpatients) who were booked for an MRI between October and December 2000 in Calgary, Alberta. The priority criteria score was calculated by summing the five weighted MRI items. Physicians rated the urgency or relative priority of each patient on a VAS urgency scale with anchors of 0 (not urgent) and 5 (urgent). Wait time, calculated as the difference in days between the date the requisition was received and the date booked for the MRI, ranged from 0 to 393 days. Analysis was limited to 2067 cases with complete data, valid dates, and wait times of 120 days or less. Cases with a longer wait time may have represented routine follow-up MRIs.

The PCS ranged from 25 to 100 (inpatients: mean = 79.69, SD = 17.5; outpatients: mean = 61.91, SD = 17.95). Although the correlation of the PCS with the VAS urgency score was moderately high ( $r=0.72$ ), there was a broad range of PCS scores for each level of VAS urgency. One hundred and six cases had VAS urgency scores above the 60<sup>th</sup> percentile (VAS urgency scores 4 or higher) while at the same time had PCS at or below the 40<sup>th</sup> percentile (PCS=60 or less).

Most inpatients (93%) had wait times of 10 days or less, compared with 5% of outpatients. Although, as expected, wait times had a negative relationship to the PCS ( $r = -0.50$ ) and the VAS urgency ( $r = -0.57$ ), the full range of PCS (25 to 100) was seen across the full range of wait times. For cases with wait times of 10 days or less, 82% had a PCS of 65 to 100 and 18% had a PCS from 25 to 60. For cases with wait times of 91 to 120 days, 74% had a PCS of 25 to 60 but 26 % had a PCS of 60 to 100.

The following observations were made with regard to the data collection and findings:

- Data quality is crucial to accurate analysis and the interpretation of results, and a protocol for handling missing data on criteria items needs to be developed in view of the impact of missing values on patients' summary scores.
- Although the correlation between the PCS and VAS urgency was positive and moderately high, there were 106 cases with high urgency (4-5) and a PCS at or below the 40<sup>th</sup> percentile. These cases would be ranked below others with lower urgency as measured by the VAS. As no demographic or diagnostic information was available, interpretability was limited.
- Although VAS urgency and the PCS were negatively related to wait time in days, as expected, inconsistencies in wait times and urgency scores were uninterpretable without more information. They may be due in part to a change in the rate of MRIs performed over the study period. To understand and interpret these inconsistencies, it would be helpful to link the data with other variables such as demographic information, possible diagnosis, physician, and/or category of service (e.g. orthopedics).

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#### 4.2.6 Future Considerations for the WCWL Priority Criteria Tools

The evidence that has been presented in this report relating to the validity and reliability of the tools is an important first step, but it is recommended:

- **that, where governing authorities choose to implement the WCWL Project priority criteria tools, implementation be carefully monitored and evaluated, ideally to include assessment of validity, reliability, feasibility, acceptability and benefit to patients in real world settings, and that the results be effectively communicated to relevant stakeholders**

In the course of developing the hip and knee replacement and cataract surgery priority criteria tools, discussions of the clinical panels focused on the possibility that the tools could be expanded in scope to include a broader range of surgical procedures. Family physicians who participated in the WCWL clinical panels commented that there may be value in extending this concept to the development of standardized, priority-based referrals to secondary care for consultation.

Accordingly, it is recommended:

- **that the work of the WCWL Project be extended as follows to:**
  - **develop point-count systems to prioritize referrals to specialists from primary care or other specialists**
  - **expand the scope of the priority criteria tools addressed to date, e.g., cataract tools to include other ophthalmologic procedures**
  - **develop point-count methods for other procedural and diagnostic areas, e.g., gynecologic procedures**

#### 4.3 Environmental Scan of Regional Health Authorities

The qualitative findings from the survey of RHAs regarding the clinical acceptability and potential implementation of the priority criteria tools are summarized in this section. A more complete summary is provided in Appendix E.

**Current Waiting List Practices:** At present, the development and management of waiting lists varies from doctor to doctor and hospital to hospital, and the length of patients' waits for services is not always commensurate with the severity of their conditions. The denotation of relative urgency on waiting lists relies on patients being assigned to one of a few broad categories, such as "urgent," "semi-urgent," and "elective." These categories are vague and provide no opportunity for further prioritization within categories. Within categories, services are ultimately offered to patients based on the order in which they entered the queue. This approach does little



to reduce the inherent subjectivity of global urgency judgments and does not permit ready comparison between jurisdictions.

**Acceptability of Priority Criteria Tools:** Respondents were generally supportive of point-score measures as being a relatively transparent, theoretically sound, and consistent method for assigning priority to patients on waiting lists. They felt that quantitative output using this method would potentially permit meaningful comparisons within service units, and might assist with resource allocation decisions.

**Attitudes about Implementation of the Tools:** There was, however, healthy skepticism about the utility of the tools. It was reported that many surgeons are reluctant to change their present approach as they feel that within a specific surgeon's waiting list those of greatest need (emergent and urgent) already get priority access to service. Concerns about downloading the costs of managing waiting lists to physicians' offices, the time to complete the forms, the validity and reliability of the tools, the continued possibility of gaming, and other factors, at times seemed to suggest minimal support for the development and deployment of the tools. Yet, when the participants were asked if this work was worthwhile and whether the efforts should continue, with rare exceptions they responded in the affirmative. It seems clear, therefore, that most are prepared to continue to work on these and or other tools.

The successful and widespread implementation of the tools will rely on an effective change management strategy. Regional health authorities must take a committed leadership role. Further, there needs to be confidence that the validity and reliability of the tools are at an acceptable level. While there is a general sense of reluctance to change wait list management processes, and while many questions about the tools remain unanswered for this group, there is also genuine interest in the development of the WCWL prioritization approach. Consequently, the evidence from the environmental scan suggests that there is support for the continuation of this work.

Furthermore, it was suggested that regional health authorities be encouraged to facilitate discussion between providers regarding mechanisms that enhance efficiencies in delivery of care in order to optimize resource utilization.

The findings of the environmental scan were helpful in highlighting some of the operational and management issues associated with implementation of priority criteria tools. Additional consultation is warranted.

It is recommended:

- **that the work of the WCWL Project be extended to conduct applied research to study (a) implementation options, (b) change management strategies, and (c) information systems, to support further development and uptake of the WCWL priority criteria tools**

#### 4.4 Public Opinion Focus Group Research

In order to gather public feedback about the priority criteria tools, a series of focus group sessions was conducted in seven Western Canadian urban centres. The report from this study is provided in Appendix F. Among the key findings of this project are:

- Strong levels of concern about the current state of waiting times for planned medical procedures or treatments were in evidence in all focus group sessions. Such comments were informed by personal experiences, word-of-mouth, and media coverage. With respect to management of waiting lists, participants held diverse views about how the prioritization is determined and by whom they are controlled. Participants acknowledged that they were, in fact, quite unaware of how the system operates and expressed a desire to learn more about this issue.
- Although individuals consulted might lack awareness about how the waiting list system works, they understood the concept of a waiting list and could appreciate the complexity with which prioritization is handled. In this light, participants believed that the most important criteria that should be used in determining the priority order of waiting lists involve the patient's need, urgency, and severity of the case. All other factors were perceived to be secondary in nature, including the belief that social factors (i.e., independence, having dependants) or emotional impact should be included as determining criteria.
- Participants recognized the criteria they believed to be important in the tools they reviewed and, with a few minor modifications, widely accepted the reasonableness of the content of the forms.
- The proposed approach to use the WCWL tools for waiting list prioritization was seen as an improvement on the current system. Participants collectively supported the WCWL concept and believed that the tools should be implemented upon finalization.

The focus group research illustrated that the public supports the WCWL concept and accepts the criteria used in the tools—with minor suggested modifications. Regarding their implementation, participants would like to know that clear processes and guidelines are in place with respect to:

- who completes the tools (preference for physicians with considerable patient input)
- the sharing of scoring results (participants preferred to see completed forms with scores excluded)
- the number of allowable assessments for initial prioritization (second opinions should be allowed, but third opinions prohibited)
- the need for reassessments due to deterioration while waiting (what would be the timeframe for repeat assessment of urgency?)
- the management of tie-breakers (all things being equal, who goes first?)
- the management of the lists (who handles the data?)

Participants wanted to be consulted. They expressed a desire to be educated about any changes that could potentially take place to address issues of fairness within the system.



Consultation with the general public has provided invaluable guidance to the WCWL Partnership in terms of the acceptability of a standardized approach to waiting list management. The views of the public ought to be sought regularly as the implementation moves forward.

#### **4.5 Discussion Papers**

The three discussion papers referred to under section 3.5 of this report are included in Appendix G. The purpose in preparing them was to address specific issues related to prioritization and access to elective health care, which were identified as important in the development of our research.

##### **Discussion Paper #1: Toward Standard Definitions of Waiting Times for Health Care Services**

The existence of numerous approaches to measuring and reporting waiting times for the same procedure in different parts of the country gave rise to the development of this paper. In consultation with members of the WCWL clinical panels, standard paths to care were developed, including all waiting time segments for each procedure group. Definitions were then proposed for each type of wait likely to be experienced by patients awaiting care.

##### **Discussion Paper #2: Establishing Acceptable Waiting Times for Medical Services: A review of the evidence and proposed methods**

The desirability of having acceptable and fair waiting time standards for health care was expressed in the clinical panels and strongly supported in the public opinion focus group sessions. A method to develop these tools has been described in this discussion paper and the WCWL Partnership proposes to undertake this research in the future.

There has been extensive support from the clinical community, the regional health authorities, and the public for the development of standardized, broadly acceptable, and fair waiting times for elective health care services and procedures. Consistent with the foundational work of WCWL Discussion Papers #1 and #2, it is recommended that:

- **the work of the WCWL Project be extended toward establishing acceptable waiting times with broad consultation with providers, health authorities, the public, and governments**
- **the Canadian Institute for Health Information (CIHI) be encouraged to partner with applied research groups in cooperation with governments, regional health authorities, providers, and the public to develop standard measures and definitions for waiting times in Canada**

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### **Discussion Paper #3: Managing Waiting Lists to Achieve Distributive Justice**

While the priority criteria tools described elsewhere in this report are designed to fairly rank-order patients judged to be in need of a particular procedure or one of a cluster of procedures, such as general surgery, an expansion of prioritization range would assist regional health authorities in managing the delivery of elective health care across different service types and procedures. Building upon the foundational work of WCWL Discussion Paper #3, it is recommended that:

- **the work of the WCWL Project be extended toward developing approaches to priority setting across diagnostic and procedural areas**

### **5.0 SIGNIFICANCE OF FINDINGS**

The causes underlying lengthy waiting lists and times are many, varied, and changeable. So, too, must be the solutions. While there is a great deal to be done, developing standardized approaches and tools for determining priority of patients to be served is a necessary step to improving quality management of waiting lists. As intended, the WCWL Project has made significant progress on development of beta versions of valid, reliable, practical, and clinically transparent measures for prioritization of patients waiting for cataract surgery, general surgery, hip and knee replacement, MRI scanning, and children's mental health services. The physician-scored tools are able to discriminate between patients of differing levels of urgency and ability to benefit. We have carried out additional work to assess the environmental impact and public acceptance of these tools and processes. Our results are encouraging and indicate that clinicians, administrators, and the public accept that better management of waiting lists is possible and appropriate and that the work of WCWL has provided some of the essential elements.

The priority scoring systems produced by WCWL focus on five clinical areas of relevance. These tools cover a broad array of conditions and interventions and provide some insight into priority setting across a broader case mix. As an unforeseen consequence, there is interest in expanding the existing scoring systems (for example, from joint replacement to orthopedic surgery more generally, and from cataract surgery to a broader range of ophthalmologic procedures) and to develop a prioritization system for referrals.

Beyond this work and to increase its value, serious attention must be given to developing appropriate and acceptable waiting times for patients at any given level of priority. While we have gained insights into the issues and how to approach this, we have not undertaken such work. Other important steps which need to be addressed are indicated in our recommendations.

As WCWL completes this phase of its work, we acknowledge that our activities have not solved the problem of waiting lists and waiting times in Canada. Nonetheless, the essential first steps have been taken in five challenging clinical areas toward improving the system. We contend that there is the strong possibility of achieving some semblance of order in establishing treatment priorities and access to elective care. We have begun an important process and partnership, have



made significant progress on development of valid and reliable tools, and are better informed as to what is left to be done and how to do it. The next steps are highlighted in the recommendations as summarized in the Executive Summary to this report: implementation and evaluation of the tools in real world settings; development of acceptable waiting times; studying implementation options, change management strategies, and information systems to support tool development and uptake; developing point-count methods to prioritize primary care referrals to specialists; expanding the scope of tools within specialties, to other specialty areas, and across specialties; and collaborating in the development of standard measures and definitions for waiting times. Experience from other jurisdictions has shown that with perseverance, adequate resources, and the support of a committed partnership, the overarching mission of the WCWL Project can be achieved.

## **6.0 DISSEMINATION**

Effective communication has been a key element in the management of the WCWL Project, primarily in response to the sensitivity of the subject matter and the high profile accorded to problems with access to elective health care. It was important that the scope of the anticipated work as well as the accomplishments of the project be communicated clearly to the appropriate audiences. Toward that end, a poll of the partners was conducted in the early stages of the project to ascertain their views regarding the deliverables and critical success factors for the project, and how these might influence communication strategies.

From that consultation, it was determined that the WCWL Partners shared a basic understanding of the major project deliverables, that is, the development of a set of valid, reliable, transparent, and practical tools to prioritize patients for selected procedures and interventions. However, there was less clarity on many of the secondary objectives, such as: the generalizability of the method; prioritization of patients across procedures and interventions; determination of reasonable and acceptable wait times; and implementation.

Another factor shaping the communication strategy was the structure of the partnership itself, necessitating frequent consultation and communication with all parties. The primary targets for communication were the partners, panel members, and those participating in the research. Regular targeted communication with these groups was accorded a high priority. Different methods were employed to reach these audiences. Direct consultation by e-mail and telephone was employed when direction was sought from the partners, as well as periodically to support interest and participation.

Fifteen issues of the project newsletter, *THE UPDATE*, have been published since May 1999, and mailed to a circulation list of 400 recipients in nine provinces and six countries. Newsletters contained progress reports, descriptions of planned activities, commentary by project leaders, and articles describing similar projects in Canada and abroad. While the content was designed to meet the needs of the primary targets, it also served to inform a broader audience.

Additional communication was directed to secondary target audiences, namely health services and policy research communities, national and international collaborators, other health care providers, and the general public. A project website at [www.wcwl.org](http://www.wcwl.org) provides current information, including a comprehensive description of the project, the partners, and the clinical panels, as well as a library of WCWL and related publications, current copies of the priority criteria tools, and relevant links.

Communication to the general public via the media was accorded a low priority; it was determined that the public would be consulted as needed but that the project would attempt to maintain a low public profile. The services of a national communications firm were engaged in the spring of 1999 to assist in disseminating information to the general public about the scope and nature of this work, and again in October 2000 upon release of an interim progress report.

As the project draws to a close, writing for publication in peer-reviewed medical literature will take on a greater priority. The peer-review process assures a high level of quality and relevance and enhances the value and utility of the work.

## 6.1 Peer-Review Publications

A list of publications targeted for peer-reviewed journals includes the following:

- published: Hadorn, David C. and the Steering Committee of the Western Canada Waiting List Project. "Setting priorities for waiting lists: defining our terms." *Canadian Medical Association Journal*. 2000; 163(7): 857-60. (see Appendix H)
- submitted: Hadorn, David C. and the Steering Committee of the Western Canada Waiting List Project. "Setting priorities for waiting lists: point-count systems as linear models." (see Appendix H)
- in progress: one paper for each of the five clinical panels, describing the development of the tools up to completion of Phase II reliability work
- in progress: one overview paper, describing the project in an international framework
- in progress: three publications arising from the discussion papers on standard definitions of waiting times, establishing acceptable waiting times, and cross-procedural waiting list prioritization

## 6.2 Short Reports

Several short reports have been written for internal and external communication purposes by WCWL staff and others; these are available on the project website:

- "WCWL: Who, What, Where, When, Why." WCWL UPDATE, May 1999
- "WCWL Q & A." WCWL UPDATE, July 1999



- A short article was published in the newsletter of the Canadian Coordinating Office for Health Technology Assessment. This can be found at: <http://www.ccohta.ca>
- “The politics of waiting,” *eCMAJ Today* Feb. 2, 2000
- “Waiting-list project struggles under weight of expectations,” *CMAJ* 2000; 162:878-9
- “Profs measure to make medical waiting lists more fair,” *University of Alberta ExpressNews*, January 24, 2001

### 6.3 Media Releases

Media releases have occurred at key points in the history of the project (see Appendix I):

- On July 26, 1999, a media release to announce the regional health authorities selected to host each of the five clinical panels and to articulate the scope of this undertaking was issued to national media via Canada Newswire in collaboration with communications staff in the WCWL Partner organizations.
- Interviews were given by WCWL Steering Committee Chair Dr. Tom Noseworthy, Project Director John McGurran, and Steering Committee member Steven Lewis. Known media coverage included *National Post*, *Calgary Herald*, *Edmonton Journal*, *Vancouver Sun*, *Regina Leader Post*, *Medical Post*, *Saskatoon Star Phoenix*, *Sing Tao*, *CBC National Radio News*, *CHED Radio*, *CHQR Radio*, *CBC Radio Calgary*, *CBC Radio Saskatoon*, *CBC Radio Edmonton*, *CBC French Radio (Radio Canada)*, *A Channel Television*, and *CFRN Television*.
- In October 2000, a media release was issued reflecting the content of an interim progress report, describing WCWL accomplishments to date and setting the stage for the final report in March 2001. Known media coverage included: *CHED Radio (Edmonton)*, *CHQR Radio (Calgary)*, *CFMG Radio (St. Albert)*, *CHOT Radio (Edmonton)*, *CKXM Radio (Victoria)*, *CJME Radio (Regina)*, *CBX Radio (Edmonton)*, *CJOB Radio (Winnipeg)*, *CKWX Radio (Vancouver)*, *CJAD Radio (Montreal)*, *Canadian Press/Broadcast News*, *Edmonton Journal*, *Business Edge*, *Canadian Medical Association Journal*, and the *Medical Post*.
- A planned media release is scheduled for May 1, 2001, to begin dissemination of the final report.

### 6.4 Presentations

Presentations have been made by members of the project to international and national meetings (see Table 6.1):

**Table 6.1 List of Presentations**

<b>Date</b>	<b>Location</b>	<b>Organization/Conference</b>
Feb 24, 1999	Montreal	Canadian Health Services Research Foundation Workshop
May 14, 1999	Vancouver	Western Medical Associations Conference
May 18, 1999	Toronto	PULSE '99: The Business of Canada's Health Care Future
Sep 24, 1999	Edmonton	Northern Alberta Regional Health Authorities
Oct 1, 1999	Toronto	Closing the Loop: 3 <sup>rd</sup> International Conference on the Scientific Basis of Health Services
Dec 7, 1999	Toronto	Joint Policy and Planning Committee
Jan 7, 2000	Winnipeg	University of Manitoba
Jan 14, 2000	Edmonton	University of Alberta, Faculty of Medicine, Division of Surgery
Jan 23, 2000	Edmonton	Capital Health Authority Quality and Utilization Committee
Feb 4, 2000	Edmonton	Alberta Health and Wellness, senior staff
Feb 22, 2000	Hong Kong	Health Services Research in Hong Kong – Chinese University of Hong Kong, Prince of Wales Hospital
Mar 15, 2000	Victoria	Capital Health Region, senior staff
Mar 30, 2000	Toronto	University of Toronto, Dept. of Health Admin.
Apr 12, 2000	Calgary	Calgary Regional Health Authority, senior staff
Apr 28, 2000	Red Deer	Alberta Association of Radiology Managers Spring Conference
Jun 12, 2000	Edmonton	Edmonton Statistics Conference
Jun 19, 2000	Ottawa	National Healthcare Leadership Conference and Exhibition
Jun 19, 2000	Ottawa	Canadian Medical Association, senior staff
Jun 20, 2000	Ottawa	Health Transition Fund
July 5, 2000	Rome, Italy	Agenzia per i Servizi Sanitari Regionali
Aug 13, 2000	Saskatoon	Canadian Medical Association Committee of Affiliates
Sep 8, 2000	Medicine Hat	Medicine Hat Hospital Rounds
Sep 27, 2000	Edmonton	Royal College of Physicians and Surgeons of Canada 69 <sup>th</sup> Annual Meeting
Sep 27, 2000	Jasper	Alberta Association of Radiology Managers Fall Conference
Oct 10, 2000	Ottawa	Canadian Association of Pediatric Hospitals Annual Meeting
Nov 6, 2000	Toronto	Ontario Hospital Association
Nov 10, 2000	Toronto	Ontario Waiting List Project Launch, Initial Meeting
Nov 10, 2000	Vancouver	13 <sup>th</sup> Annual Health Policy Conference, Centre for Health Services and Policy Research, University of British Columbia
Nov 21, 2000	Melbourne, AU	Advisory Committee on Access to Elective Surgery
Nov 27, 2000	Saskatoon	Western Medical Associations Conference
Nov 27, 2000	Calgary	Council of Medical Directors of Alberta
Dec 3, 2000	Wellington, NZ	Ministry of Health
Jan 16, 2001	Edmonton	Northern Alberta chapter of the Canadian College of Health Service Executives (CCHSE)
Jan 31, 2001	Saskatoon	Northern and Central Saskatchewan chapter of CCHSE
Feb 3, 2001	Vancouver	Quality in Health Care Conference
Feb 9, 2001	Edmonton	University of Alberta, Department of Medicine Grand Rounds
Feb 22, 2001	Yellowknife	Midnight Sun chapter of CCHSE



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### 6.3 Dissemination, 2001

Communicating the final results of this project to the partners and the public will be undertaken with guidance from the 19 partner agencies. Dissemination will focus on promoting awareness of the results and the project recommendations.

WCWL will also be involved in technical writing to document the development of the tools and their measurement properties. This will include the development of protocols for further refinement of the tools, and will provide the groundwork for the preparation of proposals to undertake future related research.

The following dissemination activities have been planned for the period following submission of the final report:

- the project's website will be updated regularly to provide current information for all target audiences
- submissions to peer-reviewed professional journals—a series of papers will be drafted and submitted to appropriate medical or health care journals
- presentations on the project to both internal and external audiences will be pursued; the following have been identified:
  - meetings of specific health care, research, and policy groups
  - provincial meetings of WCWL Project participants and stakeholders
  - participation in Health Transition Fund events
  - presentations of results to international collaborators

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- The Vancouver Sun. B.C. hospitals warn of layoffs, longer waiting lists: Faced with a request by Ramsey to chop five per cent from their budgets, hospital officials warn such cuts will prove traumatic. February 20, 1996, Final C Edition, p. B10.



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The Vancouver Sun. Waiting time for surgery longest in B.C. - study: The premier dismisses the report by the Fraser Institute, saying 'consider the source.' July 28, 1997, Final Edition, p. A1.

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Umeh HN, Faber RG, Reece-Smith H, Galland RB. Impact of a Waiting List Initiative on a general surgical waiting list. *Ann of Royal College of Surgeons of England (Suppl)* 1994; vol 76:4-7.

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**CATARACT SURGERY PRIORITY CRITERIA**  
 Version 1.0 revised October 2, 2000 – with weights

**PLEASE PRINT CLEARLY**

Provincial Health Care Number: \_\_\_\_\_

Patient Age: \_\_\_\_\_ Sex: [circle one] **M** **F**

This form is being filled out for which eye?  
 (circle one) Right Eye Left Eye

(circle one) First eye for surgery **OR** Second eye for surgery?

Has the other (second eye):  already been wait-listed for surgery? **OR**  
 already had surgery performed? If so, when? \_\_\_\_\_

If second eye, when was first eye done?: \_\_\_\_\_

Surgeon's Name: \_\_\_\_\_ Phone: \_\_\_\_\_

Date: \_\_\_\_\_

**PLEASE CHECK THE BOX THAT MOST ACCURATELY DESCRIBES THE PATIENT'S CURRENT SITUATION.**

**1. Best corrected visual acuity:**

Points	
Operated Eye	Non-operated Eye
0	0
3	0
5	9
8	11
11	13
11	15
11	17

- | Right Eye:   | Left Eye:  |
|--|--|
| <input type="checkbox"/> 6/9 or better (20/30)                 | <input type="checkbox"/> 6/9 or better (20/30)                 |
| <input type="checkbox"/> 6/12 (20/40)                          | <input type="checkbox"/> 6/12 (20/40)                          |
| <input type="checkbox"/> 6/18 (20/60)                          | <input type="checkbox"/> 6/18 (20/60)                          |
| <input type="checkbox"/> 6/24 (20/80)                          | <input type="checkbox"/> 6/24 (20/80)                          |
| <input type="checkbox"/> 6/36 (20/120)                         | <input type="checkbox"/> 6/36 (20/120)                         |
| <input type="checkbox"/> 6/60 (20/200)                         | <input type="checkbox"/> 6/60 (20/200)                         |
| <input type="checkbox"/> Count fingers/hand movements or worse | <input type="checkbox"/> Count fingers/hand movements or worse |

**2. Glare:**

- |                                 |                                     |
|---------------------------------|-------------------------------------|
| 0 <input type="checkbox"/> None | 9 <input type="checkbox"/> Moderate |
| 0 <input type="checkbox"/> Mild | 18 <input type="checkbox"/> Severe  |

**3. Ocular comorbidity (e.g. age-related macular degeneration, chronic simple glaucoma):**

	None	Mild	Moderate	Severe
Age-related macular degeneration.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	0	-2	-6	-15
Other forms of comorbidity.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	0	0	1	2



**If other form of comorbidity, what?**

- diabetic retinopathy                       other retinal disease                       chronic simple glaucoma  
 hypertensive retinopathy                       other \_\_\_\_\_

**4. Extent of impairment in visual function (e.g. reading, recognizing faces, seeing steps or curbs, watching TV, driving, and reading traffic signs):**

- 0**  No impairment  
**3**  Mild impairment  
**12**  Moderate impairment  
**23**  Severe impairment

**5. Other substantial disability (e.g. hearing loss, uses wheelchair, partially reversible dementia):**

- 0**  None/mild  
**4**  Moderate  
**10**  Severe

Please specify disability: \_\_\_\_\_

**6. Ability to work or live independently or care for dependants:**

- Not applicable  
**0**  Not threatened or no difficulties  
**2**  Not threatened but more difficult  
**10**  Threatened but not immediately  
**19**  Immediately threatened or unable

**7. All things considered, how would you rate the urgency of this patient?**

(Draw a line somewhere across the scale.)



**8. In your clinical judgment, what should be the maximum waiting time for this patient?**

Number of weeks \_\_\_\_\_ **OR** Number of months \_\_\_\_\_

**Comments on the form or process used to complete form:** \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**GENERAL SURGERY PRIORITY CRITERIA**  
 Version 1.0 revised December 19, 2000 – with weights

**PLEASE PRINT CLEARLY**

Patient Name \_\_\_\_\_ PATIENT ID \_\_\_\_\_

Patient Date of Birth \_\_\_\_\_ Patient Age \_\_\_\_\_ Sex: [circle one] M F  
 MM DD YYYY

Principal Diagnosis: 1. \_\_\_\_\_ Check if applicable:  
 2. \_\_\_\_\_ Cancer Proven   
 3. \_\_\_\_\_ Cancer Suspected

Proposed Procedure: 1. \_\_\_\_\_  
 2. \_\_\_\_\_

Proposed Date of Surgery: \_\_\_\_\_ 2001  
 MM DD YYYY

Surgeon's Name \_\_\_\_\_ ID \_\_\_\_\_ Date Form Completed: \_\_\_\_\_  
 MM DD YYYY

**PLEASE CHECK THE BOX THAT MOST ACCURATELY DESCRIBES THE PATIENT'S CURRENT SITUATION.**

**1. Usual FREQUENCY of painful episodes/suffering:**

- 0 None
- 3 Occasional
- 6 Often
- 9 Constant

**2. How INTENSE is the pain at its worst?**

- 0 No pain
- 3 Mild
- 7 Moderate
- 11 Severe

**3. Usual INTENSITY of other forms of suffering. Please specify form of suffering – CIRCLE all that apply:**

Nausea or vomiting... Fatigue.... Itching.... Psychological stress such as anxiety or depression. List others: \_\_\_\_\_

- 0 None
- 4 Mild
- 8 Moderate
- 12 Severe



**4. Degree of impairment in usual activities due to surgical condition:**

- 0 Not impaired at all/mildly impaired  
 5 Able but difficult and/or somewhat impaired  
 10 Able but very difficult and at much reduced level  
 15 Totally dependent (Unable to perform any usual activities)

**5. Recent history of: Major complications of condition  
 OR significant physical exam results  
 OR significant test results.**

- 0 No  
 8 Yes

**6. Life-expectancy implications of condition without procedure:**

- 0 Minimal threat to life  
 10 Patient faces somewhat reduced life expectancy  
 15 Patient faces substantially reduced life expectancy  
 20 Patient has condition that is likely to be fatal between six months and two years  
 25 Patient has condition that is likely to be fatal within six months

**7. Expected improvement in life-expectancy with surgery:**

- 0 None  
 5 Minimal  
 10 Moderate  
 20 Major

**8. All things considered, how would you rate the urgency or relative priority of this patient?  
 (Draw a line across the scale.)**

\_\_\_\_\_

Not Urgent at all

Extremely Urgent  
 (just short of an emergency)

**9. In your clinical judgment, what should be the maximum waiting time for this patient?**

Number of weeks \_\_\_\_\_ OR Number of months \_\_\_\_\_

Comments on the form or process used to complete form: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**HIP AND KNEE REPLACEMENT PRIORITY CRITERIA**

Version 1.0 revised October 3, 2000 – with weights

**PLEASE PRINT CLEARLY**

Provincial Health Care Number: \_\_\_\_\_

Patient Age: \_\_\_\_\_ Sex: [circle one] **M** **F**

[Tick one box]  Left Hip  Right Hip  Left Knee  Right Knee

[Tick one box]  Primary  Revision

Diagnosis: \_\_\_\_\_  
 \_\_\_\_\_

Surgeon's Name: \_\_\_\_\_ Phone: \_\_\_\_\_

Date: \_\_\_\_\_

**Patients must be on appropriate non-surgical treatment prior to evaluation (e.g. medications, walking aids, shoe inserts)**

**PLEASE CHECK THE BOX THAT MOST ACCURATELY DESCRIBES THE PATIENT'S CURRENT SITUATION**

**1. Pain on motion (e.g. walking, bending): \***

- None/mild
- Moderate
- Severe

\* Take into account usual duration, intensity, and frequency of pain, including need for narcotic vs. non-narcotic medication.

**2. Pain at rest (e.g. while sitting, lying down, or causing sleep disturbance): \***

- None
- Mild
- Moderate
- Severe

\* Take into account usual duration, intensity, and frequency of pain, including need for narcotic vs. non-narcotic medication.

**3. Ability to walk without significant pain :**

- Over 5 blocks
- 1-5 blocks
- Less than 1 block
- Household ambulator



- 4. Other functional limitations (e.g. putting on shoes, managing stairs, sitting to standing, sexual activity, bathing, cooking, recreation or hobbies):**
- 0 None/mild  
 4 Mild limitations (able to do most activities with minor modifications or difficulty)  
 11 Moderate limitations (able to do most activities but with modification or assistance)  
 19 Severe limitations (unable to perform most activities)
- 5. Abnormal findings on physical exam related to affected joint (e.g. deformity, instability, leg length difference, restriction of range of motion on examination):**
- 0 None/mild  
 5 Moderate  
 10 Severe
- 6. Potential for progression of disease documented by radiographic findings (e.g. recurrent dislocation, x-ray evidence of protrusion, significant bone loss, component wear, impending fracture):\*\***
- 0 None  
 4 Mild  
 11 Moderate  
 20 Severe
- \*\* Predominantly applies to revisions, use in primary cases only in special circumstances (e.g. ligament instability, bone loss)
- 7. Threat to patient role and independence in society (i.e. ability to work, give care to dependants, live independently (difficulty must be related to affected joint)):**
- 0 Not threatened but more difficult  
 10 Threatened but not immediately  
 20 Immediately threatened or unable
- 8. All things considered, how would you rate the urgency or relative priority of this patient? (Draw a line across the scale.)**

|-----|  
 Not Urgent at all Extremely Urgent  
(just short of an emergency)

- 9. In your clinical judgement, what should be the maximum waiting time for this patient?**  
 Number of weeks \_\_\_\_\_ OR Number of months \_\_\_\_\_
- 10. In your practice how long would it take this patient to have the surgery done from the time you first see the patient?**  
 Number of weeks \_\_\_\_\_ OR Number of months \_\_\_\_\_

**Comments on the form or process used to complete form:** \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**MRI SCANNING PRIORITY CRITERIA**  
 Version 1.0 revised June 22, 2000 – with weights

**PLEASE PRINT CLEARLY**

Provincial Health Care Number: \_\_\_\_\_

Patient Age: \_\_\_\_\_ Sex: [circle one] **M**    **F**

Body Part:

<input type="checkbox"/> Brain	<input type="checkbox"/> Neck (soft tissue)	<input type="checkbox"/> Spine (cervical)	<input type="checkbox"/> Spine (thoracic)	<input type="checkbox"/> Spine (lumbar)
<input type="checkbox"/> Shoulder	<input type="checkbox"/> Chest	<input type="checkbox"/> Abdomen	<input type="checkbox"/> Knee	<input type="checkbox"/> Other _____

Diagnosis: \_\_\_\_\_  
 \_\_\_\_\_

Specialist's Name: \_\_\_\_\_ Phone: \_\_\_\_\_

Date: \_\_\_\_\_

**PLEASE CHECK THE BOX THAT MOST ACCURATELY DESCRIBES THE PATIENT'S CURRENT SITUATION.**

1. **Usual duration/frequency/intensity of pain &/or suffering:**
  - 0  None/mild
  - 10  Moderate
  - 20  Severe
  
2. **Severity of illness/impairment:**
  - 5  Low
  - 10  Medium
  - 20  High
  
3. **Probable time course of clinical deterioration:**
  - 5  Long-term (> 6 months)
  - 10  Mid-term (1 – 6 months)
  - 20  Short-term (< 1 month)
  
4. **Probability of MRI providing clinically significant diagnostic information:**
  - 5  Low
  - 10  Medium
  - 20  High
  
5. **Probability of successful treatment resulting from the diagnostic information:**
  - 5  Low
  - 10  Medium
  - 20  High



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6. All things considered, how would you rate the urgency or relative priority of this patient?  
(Draw a line across the scale.)

\_\_\_\_\_

Not Urgent at all  
(probably doesn't require MRI)

Extremely Urgent  
(just short of an emergency)

7. In your clinical judgement, what should be the maximum waiting time for an MRI for this patient?  
Number of weeks \_\_\_\_\_ OR Number of months \_\_\_\_\_

Comments on the form or process used to complete form: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**CHILDREN'S MENTAL HEALTH PRIORITY CRITERIA**

Version 1.0 revised October 16, 2000 – with weights

**PLEASE PRINT CLEARLY**

Provincial Health Care Number: \_\_\_\_\_ Date: \_\_\_\_\_

Patient Age: \_\_\_\_\_ Sex: [circle one] **M** **F**

Reason for referral: \_\_\_\_\_

Clinician's Name: \_\_\_\_\_ Phone: \_\_\_\_\_

Clinician's Profession: \_\_\_\_\_

Facility: \_\_\_\_\_ Program: \_\_\_\_\_

Referral Source: \_\_\_\_\_

**PLEASE CHECK THE BOX THAT MOST ACCURATELY DESCRIBES THE PATIENT'S CURRENT SITUATION**

- 1. Danger to self**

<input type="checkbox"/> None	<input type="checkbox"/> Moderate
<input type="checkbox"/> Minor	<input type="checkbox"/> Severe
- 2. Danger to others**

<input type="checkbox"/> None	<input type="checkbox"/> Moderate
<input type="checkbox"/> Minor	<input type="checkbox"/> Severe
- 3. Psychotic symptoms**

<input type="checkbox"/> None	<input type="checkbox"/> Moderate
<input type="checkbox"/> Mild	<input type="checkbox"/> Severe
- 4. Global age-appropriate developmental progress**

<input type="checkbox"/> No delay and/or no risk of delay	<input type="checkbox"/> Moderate delay and/or moderate risk of delay
<input type="checkbox"/> Minor delay and/or minor risk of delay	<input type="checkbox"/> Severe delay and/or high risk of delay
- 5. Children's GAF score (see Attachment, Children's Global Assessment of Functioning—higher is healthier)**

<input type="checkbox"/> 40 or less	<input type="checkbox"/> 51 to 60
<input type="checkbox"/> 41 to 50	<input type="checkbox"/> More than 60
- 6. Internalized symptoms**

<input type="checkbox"/> None	<input type="checkbox"/> Moderate
<input type="checkbox"/> Minor	<input type="checkbox"/> Severe
- 7. Externalized/disruptive behaviour**

<input type="checkbox"/> No problems	<input type="checkbox"/> Moderate problems
<input type="checkbox"/> Minor problems	<input type="checkbox"/> Severe problems
- 8. Comorbid medical conditions**

<input type="checkbox"/> None	<input type="checkbox"/> Moderate
<input type="checkbox"/> Minor	<input type="checkbox"/> Severe

**9. Comorbid psychiatric conditions**

- None  Moderate  
 Minor  Severe

Please specify: \_\_\_\_\_

**10. Harmful substance use/misuse**

- No problems  Moderate problems  
 Minor problems  Severe problems

**11. Significant biological family history of mental illness**

- Yes  No  Unknown

**12. School and/or work**

- No problems  Moderate problems  
 Minor problems  Severe problems

**13. Social/friendships/community functioning**

- No problems  Moderate problems  
 Minor problems  Severe problems

**14. Does the patient have problems in the context of the home?**

- No problems  Moderate problems  
 Minor problems  Severe problems

**15. Family functioning or factors affecting child**

- No problems  Moderate problems  
 Minor problems  Severe problems

**16. Prognosis without further intervention**

- Good  Guarded  
 Moderate  Poor

**17. Degree of likely benefit with further intervention**

- Very High  Moderate  
 High  Low

**18. All things considered, how would you rate the urgency or relative priority of this patient?  
(Draw a line across the scale)**

|-----|  
 Not Urgent at all Extremely Urgent  
(just short of an emergency)

**19. What is the ideal and maximum waiting time that this patient/client should have to wait for an initial assessment by a clinician?**

Ideal \_\_\_\_\_ Maximum \_\_\_\_\_

**20. Following this assessment how long should the patient/client have to wait for treatment?**

Ideal \_\_\_\_\_ Maximum \_\_\_\_\_

Comments on the form or process used to complete form:

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The following version of the Children's Mental Health Priority Criteria tool (version 1.1) was revised on the recommendation of the panel co-chair and participants in the reliability focus group session (December 4, 2000) and is being used in Phase II pilot-testing.



## CHILDREN'S MENTAL HEALTH PRIORITY CRITERIA

Version 1.1 revised January 11, 2001 – no weights

### PLEASE PRINT CLEARLY

Provincial Health Care Number: \_\_\_\_\_ Date: \_\_\_\_\_

Patient Age: \_\_\_\_\_ Sex: [circle one] **M** **F**

Reason for referral: \_\_\_\_\_

Clinician's Name: \_\_\_\_\_ Phone: \_\_\_\_\_

Clinician's Profession: \_\_\_\_\_

Facility: \_\_\_\_\_ Program: \_\_\_\_\_

Referral Source: \_\_\_\_\_

### PLEASE CHECK THE BOX THAT MOST ACCURATELY DESCRIBES THE CHILD/YOUTH'S CURRENT SITUATION

**1. Danger to self**

- |                                |                                   |
|--------------------------------|-----------------------------------|
| <input type="checkbox"/> None  | <input type="checkbox"/> Moderate |
| <input type="checkbox"/> Minor | <input type="checkbox"/> Severe   |

**2. Danger to others**

- |                                |                                   |
|--------------------------------|-----------------------------------|
| <input type="checkbox"/> None  | <input type="checkbox"/> Moderate |
| <input type="checkbox"/> Minor | <input type="checkbox"/> Severe   |

**3. Psychotic symptoms**

- |                               |                                   |
|-------------------------------|-----------------------------------|
| <input type="checkbox"/> None | <input type="checkbox"/> Moderate |
| <input type="checkbox"/> Mild | <input type="checkbox"/> Severe   |

**4. Global age-appropriate developmental progress**

- |   |   |
|---|---|
| <input type="checkbox"/> No delay and/or no risk of delay       | <input type="checkbox"/> Moderate delay and/or moderate risk of delay |
| <input type="checkbox"/> Minor delay and/or minor risk of delay | <input type="checkbox"/> Severe delay and/or high risk of delay       |

**5. Children's GAF score (see Attachment, Children's Global Assessment of Functioning—higher is healthier)**

- |                                     |                                       |
|-------------------------------------|---------------------------------------|
| <input type="checkbox"/> 40 or less | <input type="checkbox"/> 51 to 60     |
| <input type="checkbox"/> 41 to 50   | <input type="checkbox"/> More than 60 |

**6. Internalized symptoms**

- |                                |                                   |
|--------------------------------|-----------------------------------|
| <input type="checkbox"/> None  | <input type="checkbox"/> Moderate |
| <input type="checkbox"/> Minor | <input type="checkbox"/> Severe   |

**7. Externalized/disruptive behaviour**

- |   |  |
|---|--|
| <input type="checkbox"/> No problems    | <input type="checkbox"/> Moderate problems |
| <input type="checkbox"/> Minor problems | <input type="checkbox"/> Severe problems   |

**8. Comorbid medical conditions**

- |                                |                                   |
|--------------------------------|-----------------------------------|
| <input type="checkbox"/> None  | <input type="checkbox"/> Moderate |
| <input type="checkbox"/> Minor | <input type="checkbox"/> Severe   |

**9. Harmful substance use/misuse**

- No problems
- Minor problems
- Moderate problems
- Severe problems

**10. Significant biological family history of mental illness or substance abuse**

- Yes
- No
- Unknown

**11. School and/or work**

- No problems
- Minor problems
- Moderate problems
- Severe problems

**12. Social/friendships/community functioning**

- No problems
- Minor problems
- Moderate problems
- Severe problems

**13. Does the child/youth have problems in the context of the home?**

- No problems
- Minor problems
- Moderate problems
- Severe problems

**14. Negative impact of family functioning on child or youth**

- No problem
- Minor effect on child or youth
- Moderate effect on child or youth
- Severe effect on child or youth

**15. Prognosis without further intervention**

- Good
- Moderate
- Poor

**16. Likelihood of substantial improvement as a result of treatment. "Substantial improvement" means a significant improvement in GAF as a result of treatment.**

- Very High
- High
- Moderate
- Low

**17. All things considered, how would you rate the urgency or relative priority of this patient?  
 (Draw a line across the scale)**



**18. What is the maximum waiting time that this child/youth should have to wait for an initial assessment by a mental health specialist?**

Maximum \_\_\_\_\_

**19. Following this assessment how long should the child/youth have to wait for treatment?**

Maximum \_\_\_\_\_

**Comments on the form, or process used to complete form:**

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### Children's Global Assessment of Functioning (GAF) Scale (revised)

Rate the subject's most impaired level of general functioning for the specified time period by selecting the lowest level which describes his/her functioning on a hypothetical Continuum of health-illness. Use intermediary levels (e.g. 35, 58, 62). Rate actual functioning regardless of treatment or prognosis. The examples of behaviour provided are only illustrative and are not required for a particular rating.

Specified Time Period: 1 month

- 91-100** Superior functioning in all areas (at home, at school, and with peers); involved in a wide range of activities and has many interests (e.g. has hobbies or participates in extracurricular activities or belongs to an organized group such as Scouts, etc): likeable, confident; "everyday" worries never get out of hand; doing well in school; no symptoms
- 81-90** Good functioning in all areas; secure in family, school, and with peers; there may be transient difficulties and "everyday" worries that occasionally get out of hand (e.g. mild anxiety associated with an important exam. occasionally "blowups" with siblings parents, or peers)
- 71-80** No more than slight impairment In functioning at home, at school; or with peers; some disturbance of behaviour or emotional distress may be present in response to life stresses (e.g. parental separations, deaths, birth of a sib), but these are brief and interference with functioning is transient; such children are only minimally disturbing to others and are not considered deviant by those who know them
- 61-70** Some difficulty in a single area, but generally functioning pretty well (e.g. sporadic or isolated antisocial acts, such as occasionally playing hooky or petty theft; consistent minor difficulties with school work; mood changes of brief duration; fears and anxieties which do not lead to gross avoidance behaviour; self-doubts); has some meaningful interpersonal relationships; most people who do not know the child well would not consider him/her deviant but those who do know him/her well might express concern
- 51-60** Variable functioning with sporadic difficulties or symptoms in several but not all social areas; disturbance would be apparent to those who encounter the child in a dysfunctional setting or time but not to those who see the child in other settings
- 41-50** Moderate degree of interference in functioning in most social areas or severe impairment of functioning in one area, such as might result from, for example, suicidal preoccupations and ruminations, school refusal and other forms of anxiety, obsessive rituals, major conversion symptoms, frequent anxiety attacks, poor or inappropriate social skills, frequent episodes of aggressive or other antisocial behaviour with some preservation of meaningful social relationships
- 31-40** Major impairment in functioning in several areas and unable to function in one of these areas, e.g. disturbed at home, at school, with peers or in society at large, e.g., persistent aggression without clear instigation; markedly withdrawn and isolated behaviour due to either mood or thought disturbance, suicidal attempts with clear lethal intent: such children are likely to require special schooling and/or hospitalization or withdrawal from school (but this is not a sufficient criterion for inclusion in this category)
- 21-30** Unable to function in almost all areas, e.g., stays at home, in ward, or in bed all day without taking part in social activities or severe impairment in reality testing or serious impairment in communication (e.g., sometimes incoherent or inappropriate)
- 11-20** Needs considerable supervision to prevent hurting others or self (e.g. frequently violent, repeated suicide attempts) or to maintain personal hygiene or gross impairment in all forms of communication, e.g. severe abnormalities in verbal and gestural communication, marked social aloofness, stupor, etc.
- 0-10** Needs Constant supervision (24-hr care) due to severely aggressive or destructive behavior or gross impairment in reality testing, communication, cognition, affect, or personal hygiene

Children's Global Assessment Scale was adapted from the Global Assessment Scale for Adults  
Children's Global Assessment Scale- Shaffer et al 1229.