

***Priority Setting in the Clinical
Activity Target Setting Process
at University Health Network***
Final Report

A collaboration with the University of Toronto Joint Centre for Bioethics

Shannon Madden^{2, 3}, Dr. Douglas Martin^{2, 3},

Sarah Downey¹ & Dr. Peter Singer^{2, 4}

¹ University Health Network

² University of Toronto Joint Centre for Bioethics

³ Department of Health Policy, Management and Evaluation, University of Toronto

⁴ Department of Medicine, University of Toronto

January 25, 2003

Priority Setting Case Study Preliminary Report

University Health Network

1.0 Executive Summary

Priority setting (as known as resource allocation or rationing) occurs at all levels of the healthcare system and is a key ethical issue in all healthcare organizations including hospitals. Fairness, defined as morally appropriate processes and outcomes, is a key priority setting goal. However, given the lack of consensus about fair outcomes, how can fairness be achieved?

A first step to achieve fairness is to describe priority setting groups and their priority setting processes. There are few limited descriptions of how priority setting decisions are made in hospitals. A second step is to evaluate the actual decision-making process against a framework detailing how priority setting decisions should be made. “Accountability for reasonableness” (Daniels, Sabin, 1997) has gained international recognition as an ethical framework for fair priority setting, however, priority setting in hospitals has yet to be evaluated using “accountability for reasonableness”.

In the summer of 2002, University Health Network collaborated with researchers from the University of Toronto Joint Centre for Bioethics to conduct a case study of a priority setting process contained in the larger 2000/01 strategic planning initiative. This study focused on one portion of the strategic planning priority setting initiative called Clinical Activity Target Setting (CATS).

There were three interrelated objectives for this project:

1. Describe the CATS process at UHN (through the analysis of documents and interviews with key informants);
2. Evaluate the process against a leading priority setting ethical framework “accountability for reasonableness” (Daniels and Sabin, 1997); and
3. Identify good practices and opportunities for improvement.

The investigators found that UHN’s CATS process was well-planned, well-executed, and inclusive. Decisions were made fairly based on criteria that were agreed upon by a group of senior hospital administrators (the Planning and Priorities Council (PPC)). This is the first time UHN has engaged in this type of process. In doing so, UHN broke ground for future priority setting initiatives at the organization.

Based on the case study and evaluation, we have developed seven recommendations to improve future priority setting initiatives.

1. Early in the process, PPC should provide a clear description of each criterion and how it will be applied, and provide mechanism for refining criteria.
2. PPC should include all program grouping leaders (PGL) in decision making.
3. External stakeholders should be consulted at every step of the process. (A suggestion that came from member checking was to include that additionally an external facilitator should be used to lead the decision-makers through key parts of the process)
4. PPC should develop a comprehensive communication strategy that describes each stage of the CATS process, targets all hospital staff and external stakeholders, and uses multiple effective vehicles.
5. PPC should change the name of its 'appeals' process to 'revisions' process and describe it as another opportunity for consultation and revision.
6. PPC should ensure that the reasons for revisions are documented throughout the revisions process.
7. UHN should repeat this case study and evaluation with each priority setting initiative.

These recommendations can be used in future strategic planning initiatives as well as the next phase of strategic planning (Program Grouping Strategic Planning) and can also be applied to operating budget planning and other priority setting initiatives.

UHN aims to occupy a vital role in health care as a global leader. By supporting and allowing this research to be done, UHN has secured a place for the organization as one committed to excellence, education and quality health care. The senior management at UHN is to be commended for these strides taken by pursuing this case study. The lessons learned through this study allow not only UHN to grow and improve in their priority setting, but the study also provides an educational learning tool and platform for hospitals nationwide.

2.0 Objectives

The three interrelated objectives of this project are to:

- 1) *Describe* priority setting at UHN -- this report will describe the process of decision making by senior management (in particular the Planning and Priorities Council) related to a specific part of UHN's strategic planning exercise, CATS (i.e. what decision makers 'do');
- 2) *Evaluate* this description against a conceptual framework for fair priority setting -- "accountability for reasonableness", (i.e. what decision makers 'should do'); and,
- 3) *Identify* the good practices and opportunities for improvement.

3.0 Background

In 2000, senior management of UHN initiated of an innovative priority setting exercise that resulted in guidance for future decision making within the organization. Over eighteen months, staff from all areas at UHN worked collaboratively to answer the question of 'how UHN should position itself for the changes during the next ten years'. The last seven months of the strategic planning exercise was dedicated to clinical activity target setting (CATS), where decisions were made regarding the future clinical volumes of UHN services. The CATS process

The rationale behind CATS stems from three stresses felt province-wide:

- (1) Limits to hospital funding,
- (2) Staff shortage in all disciplines of healthcare,
- (3) The lack of resources in the areas of space and equipment due to a "huge capital deficiency".

This last stress is significantly felt by UHN. Space, staff or funding deficits will not allow all programs to grow; UHN is "unable to provide all services to all people".

The senior management of UHN consulted with faculty from University of Toronto Joint Centre for Bioethics (JCB), and agreed to collaborate with the JCB to conduct a study of the priority setting exercise. (For a description of the JCB, see Appendix A). In order to ensure that the lessons learned from the priority setting exercise were captured, scholars from the JCB described and evaluated the process to achieve three goals:

1. To capture lessons from the experience that could be used to improve the organizations future priority setting processes;

2. To bring that learning to the academic literature, in which hospital priority setting is under described, in particular to provide leadership in the form of ‘good’ practices that can be shared with other health care organizations.
3. To cultivate a learning organization.

In January 2002, the Priority Setting Case Study was approved at UHN and research began in May 2002. A qualitative case study was designed to describe priority setting at UHN, evaluate the description of the observations of the study against a framework for priority setting, “accountability for reasonableness,” and to identify areas of good practices and opportunities of improvement for the priority setting process. This case study began after all key strategies and clinical volume decisions had been made, and just prior to the second phase of strategic planning at the program grouping level. The case study concluded with a submission of the case study report to the Board of Trustees and Senior Management in October 2002.

3.1 The Ethical Framework: Accountability for Reasonableness

A goal of priority setting is fairness. Accountability for reasonableness, developed by Daniels and Sabin, is a conceptual model for fair priority setting. It is theoretically grounded in justice theories emphasizing democratic deliberation.^{e.g.1, 2} It was developed in the context of empirical studies of priority setting in U.S. Health Maintenance Organizations and so is relevant to real-world decision making³. It has become the preferred conceptual model of leading priority setting researchers and decision makers internationally^{4, 5, 6, 7} Moreover, no alternative conceptual model is both ethically and empirically grounded, and focused on priority setting processes.

Priority setting is primarily a problem of justice and, in the absence of consensus on substantive justice principles, the problem of priority setting becomes one of procedural justice -- that is, a legitimate institution using fair priority setting processes.

According to accountability for reasonableness, an institution’s priority setting decisions may be considered fair if they satisfy four conditions: *relevance*, *publicity*, *appeals*, and *enforcement*, which are described in Table 1.

Table 1. The four conditions of accountability for reasonableness

Relevance	Rationales for limit-setting decisions must rest on reasons (information and values) that fair-minded parties (managers, clinicians, patients, and affected others) can agree are
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	relevant to meeting health care needs under resource constraints in the context.
Publicity	Limit-setting decisions and their rationales must be publicly accessible.
Appeals	There is a mechanism for challenge and dispute resolution regarding limit-setting decisions, including the opportunity for revising decisions in light of further evidence or arguments.
Enforcement	There is either voluntary or public regulation of the process to ensure that the first three conditions are met.

3.2 Priority Setting in Hospitals

Priority setting (also known as rationing or resource allocation) can be defined as the distribution of resources among competing programs or people.⁸ It occurs at all levels of the Canadian health care system, including the federal and provincial governments, regional health authorities (RHAs), provincial pharmaceutical benefit-management organizations, provincial disease networks, hospitals, and clinical programs. This project focuses on hospitals. Canadian hospitals account for one-third of health care expenditures. In 1998, \$27.6 B of the \$83.9 B spent on Canadian health care was spent on hospitals, and over one-third of hospital expenditures, \$10.1 B, occurred in Ontario.⁹ Furthermore, all Canadian hospitals are stressed from several years of financial constraints, mergers and closures, as well as increasing health care demands resulting in, for example, surgical waiting lists, overcrowded emergency rooms, and an inadequate supply of resources for discharged patients. In particular, Ontario hospital boards, which have responsibility to the "Public Hospitals Act" for stewardship of the organization and the funds it receives in transfer payments from the provincial government, struggle to fulfill their missions, provide quality care, and maintain the 'bottom line'.¹⁰ Although priority setting occurs at all levels of the health system, most priority setting research has focused on the macro (i.e. health system) or micro (e.g. bedside) policy making levels. Moreover, there is a growing body of research at the macro level analyzing actual priority setting using called 'meso' level of policy making, which includes regional health authorities (RHAs) and hospitals. Although there are studies of priority setting in RHAs,^{11, 12, 13, 14, 15, 16, 17} little is known about priority setting in hospitals.

To the knowledge of the investigators, only one study has examined actual priority setting in hospitals: Deber *et al.* described technology acquisition in Canadian hospitals.^{18, 19} However, this study was limited to a focus on new technologies, not on the entire range of priority setting decisions faced in a hospital.

3.3 Contributions of this research

The contributions of this research include:

1. An empirical description of the priority setting exercise at UHN in 2001.
2. An evaluation of the initiative that will highlight good practices actionable opportunities for improvement at UHN.

4.0 Methods

4.1 Case Study Research To Describe Priority Setting

Design: This was a qualitative case study of priority setting for clinical activity targets in the hospital. A case study is “an empirical inquiry that investigates a contemporary phenomenon within its real-life context.”²⁰ This type of case study method was chosen because of the complexity of priority setting in hospitals.

Setting: The setting for this study was UHN, a network of three large urban university affiliated teaching hospitals in Toronto, Canada. This study was conducted between May and October 2002 and focused primarily on the actions related to the CATS as a portion of the larger priority setting exercise at UHN in the last quarter of 2001. The investigators’ primary contacts were: Tom Closson, CEO, Sarah Downey, Director of Planning and Performance Measurement, Colin Smith, Director Information Management and Catherine Wang, Manager Corporate Planning.

Sample: The authors sampled key documents and people, using a combination of convenience sampling (documents that were available) and theoretical sampling (people who were involved in a significant aspect of the priority setting initiative). Sample size for individual interviews was not formally calculated.

Data collection: There are three primary sources of data for this case study: (1) key documents (e.g. strategic planning documents), (2) one-on-one interviews with key informants (e.g. members of the Planning and Priorities Council (PPC) and program grouping leaders), as well as focus groups with general staff and (3) interviews with key observants of group deliberations (e.g. PPC Retreats and planning meetings). Key documents were obtained in electronic form wherever possible. Key informant interviews were audiotaped and transcribed. An initial interview guide was developed

based on relevant literature and previous research (see Appendix B - Initial Interview Guide). The interview guide was revised during data collection and analyses to exploit emerging findings.²¹

i) Documents

- *Strategic Directions 2011: Exemplary Patient Care and Global Impact*;
- Meeting minutes relating to Strategic Directions from:
 - Planning and Priorities Council
 - Medical Advisory Council
 - President Reports
 - Management Forum
 - Board of Trustees
- Select UHN Newsletters (*Caring Together*) along with six special publications “*Strategic Directions*” (a special publication for strategic planning)
- Communication correspondence regarding CATS, the appeals process: emails, presentation outlines, reports, and timelines;
- Copy of the strategic directions project plan 2000/01
- Documents explaining decision making methodology; data and evaluation outcomes
- Intranet material (inter-organizational communication)
- Program grouping methodology workbook and CATS workbook
- Copy of the publication “*Planning our Future in a Fair Way*” (CATS methodology and explanation)
- Annual reports 2000/2001 and 2001/2002.

ii) Interviews

The investigators conducted 32 interviews with a total of 66 people, including members of PPC, board members, program grouping leaders, program element leaders, allied health professionals, middle management, and members of the community advisory councils. 26 individual interviews and 6 focus group interviews with 3 to 12 people each were conducted during the months of May, June, and July.

iii) Observations

Observations were made by the investigators and their recollections were captured via written and face-to-face interviews.

Data analysis: Data analysis involved a modified thematic analysis that proceeded in two steps: open and axial coding.²² First in *open coding*, the data was read and then fractured by identifying chunks of data that relate to an idea. Second, in *axial coding*, similar ideas were organized into overarching themes.

The investigators addressed the “validity” of our findings in five ways.²³ First, the data was “triangulated” from three different sources (documents, interviews, and observations) to maximize comprehensiveness and diversity.²⁴ Second, two researchers coded the raw data to ensure accuracy and breadth of data. Third, although the primary researchers collected the data, a multidisciplinary group of researchers from the JCB enhanced the “reflexivity” in the analysis by becoming familiar with the data and participating in the data analysis. This assisted the analysis by addressing and, when necessary, discarding prior assumptions and experience.⁵³ Fourth, the descriptive results of the study were distributed to participants of the case study for a “member check” allowing participants a chance to reflect and comment on the study results. Here a draft report was circulated to 14 study participants. Individuals were given the opportunity to read the report and respond to any incorrect or missing information. Lastly, all research activities were rigorously documented to permit a critical appraisal of the methods.²⁵

4.2 Interdisciplinary Research to Evaluate Priority Setting

“Interdisciplinary” research involves “researchers work[ing] jointly using a shared conceptual framework drawing together disciplinary-specific theories, concepts, and approaches to address [a] common problem”.²⁶ Interdisciplinary research can help develop connections between discipline-specific theories, and led to a shared conceptual framework that transcends traditional disciplinary boundaries.²⁷

To evaluate the case study descriptions, the investigators used using accountability for reasonableness developed by Daniels and Sabin described above. The ‘input’ to the interdisciplinary research phase was the description of priority setting (organized by themes) developed in the case study. The investigators compared the descriptions (good practices) with the conditions of accountability for reasonableness (what they should do) to identify opportunities for improvement.

4.3 The Investigators’ Position

Two investigators conducted the Priority Setting case study at UHN during the months of May – October. One investigator (DM) was a participant observer involved in the formulation of the appeals process. The other investigator (SM) had no previous connection with any members of the senior management and did not participate in any of the strategic planning but conducted the case study after all decisions had been made. Both investigators are affiliated the JCB and Department of Health Policy, Management and Evaluation at the University of Toronto, and have no direct

connection with UHN. SD is a member of UHN's senior management and conducted the CATS process. PAS is the Director of the JCB and a staff physician at UHN.

4.4 Research Ethics

UHN agreed to participate in this project and approval for this project was obtained from both the University of Toronto Human Subjects Review Committee and UHN Research Ethics Board.

Written informed consent was obtained from each individual before being interviewed. All raw data was (and is) protected as confidential and available only to the research team. No individuals will be identified in dissemination without their explicit agreement.

5.0 A Description of the UHN CATS Process

In November 2000, UHN undertook a strategic planning process to guide UHN's decisions, activities and goals for the next 5 to 10 years. The process, consisted of four main parts, lasted 15 months, and was completed January 2002.

The first step of the process was having six task forces analyze the major global and environmental factors impacting UHN.

Second, through a detailed and consultative process, seven program groupings were formed.

Third, a reassessment of UHN's mission, vision, and values was completed resulting in a new organizational vision.

Fourth, clinical activity targets were set for all of the elements within the new program groupings, the CATS process.

The CATS process was shaped and influenced by the outcomes and decisions made in the first three steps.

This work, along with previous work from Project 2003 was synthesized to create: *UHN Strategic Direction 2011: Exemplary Patient Care and Global Impact*.

Prior to the CATS process, the program grouping methodology took place throughout the first year of strategic planning. The goal of the Program Groupings Methodology was to group all of UHN's programs and services into clearly defined Program Groupings and to describe their size and scope from the clinical, educational, and research perspectives. A Program Grouping "*is an organized system of services or interrelated activities designed to address the health needs of a target population, in an efficient, effective and quality driven manner*" (CATS Program Grouping

Methodology Document). After a call for letters of intent, eight Program Groupings were asked to submit proposals, which were received and presented at a workshop, where over 75 UHN leaders rated and ranked the proposals on seven criteria, held May 10, 2001:

1. *Meeting a significant health need*
2. *Having a critical mass of services provided at UHN*
3. *Promoting interdisciplinary service delivery*
4. *Encompassing the health continuum*
5. *Having a critical mass of educational activity*
6. *Having a critical mass of research activity*
7. *Supporting UHN's vision, mission and values*

A program grouping proposal required a score of 70% approval against the criteria in order to be accepted. From this came six program groupings: Community and Population Health, Heart and Circulation, Musculoskeletal Health and Arthritis, Neural and Sensory Science, Oncology and Blood Disorders, and Transplantation. After a follow up meeting on June 5, 2001, it was decided that seven Program Groupings would exist, including the above groupings plus a new grouping, Advanced Medicine and Surgery. All services offered at UHN fit into one of the seven groupings as a program elements (a program element is “*a subset of activities within the Program Grouping that are tightly related and operate from a single or a small group of financial functional centers*”) (*CATS Program Grouping Methodology Document*). The exception to this are ‘Core Clinical Services’ that support all or several programs (such as laboratories, bioethics and allied health). (See Appendix C for a list of the services incorporated in each of Program Groupings along with a list of the Core Clinical Services)

With the new program groupings in place, and the task force work complete the focus turned to re-defining the vision of UHN. “*Achieving Global Impact*” became the new vision and goal and a key decision making tool for the rest of the strategic planning process.

“*The goal of the CATS Process is to ensure that there is a balance between excellent leading edge clinical activity and the resources available to carry out this activity*” (*CATS Program Grouping Methodology Document*). (Appendix D shows a timeline for the CATS process). The objective of long-term planning and decision making (five years), as opposed to making short-term, ad hoc decisions, is to “promote excellence, ensure better services for patients and facilitate planning for staffing, space and equipment” (*CATS Program Grouping Methodology Document*). The clinical

activity target process at UHN began once the Board of Trustees' approved of the final program groupings on June 27, 2001.

The CATS process was led by CEO, the Chief Financial Officer (CFO) and the Director of Planning and Performance Measurement. In the summer of 2001, program grouping leaders completed workbooks for each of their program elements. Workbooks were completed using a decision tree and program leaders had access to data specifically collected for the CATS process by staff in Corporate Planning. (See Appendix E for decision tree). Workbooks were completed for all program elements, with the exception of some elements that combined efforts. The purpose of the workbook was to generate a strategy for operation in the upcoming year (2002), as well as for 2006 in regards to desired clinical volumes. Workbooks focused on six major components:

- *Is this Program Element a central focus for the Program Grouping?*
- *Is the Program Element fully funded by the MOH or self-funded?*
- *Is the Program Element an area of significant research strength?*
- *Is the Program Element part of the medical training program (undergraduate and graduate)?*
- *Is the Program Element an essential service for the local catchment area?*
- *Are other hospitals in the GTA providing the services or planning to provide the services of the Program Element?*

The workbooks were submitted on to PPC September 7, 2001. From there, PPC participated in a two-part retreat where workbook results were analyzed and discussed. The desired outcome of the retreats was to develop recommendations on the growth, maintenance or reduction of clinical volumes for each program element to the year 2006. These recommendations fell under one of the following graded categories:

- A. Significant growth in volumes for the program element (>15%)
- B. Small growth in volumes for the program element (0 to 15%)
- C. Hold volumes (0 growth)
- D. Small decrease in volumes for program element (0 to -15%)
- E. Significant decrease in volumes for the program element (> -15%)

NB: 15% represents the anticipated growth in population and impact of aging of the GTA population over the next five years.

Retreat Day #1 was held October 4, 2001. This day allowed PPC to review for the first time the workbook submissions and make preliminary recommendations regarding the clinical activity target volumes for the program elements. It was discovered that all elements wanted to increase volumes by a total of 25% over the next five years (5% per year). Since this outcome was impossible to realize given fiscal, human, and spatial restraints, new criteria in which to rank the

workbooks were to be created. These new criteria needed to be representative of the data collected and also allow appropriate consideration for the overarching vision of “global impact”. The CEO, CFO and the project director created six criteria (which were approved by PPC) on which to base volume decisions:

1. *MOH priority*
2. *Impact of activity (uniqueness)*
3. *Support to/interdependence with other program groupings or core clinical services*
4. *Educational need*
5. *Research strength*
6. *Linkage with UHN priority technologies*

Along with the six criteria, a ten-point scale for each criterion was created to give guidance and add objectivity to the decision making. Program elements would receive a score of zero to ten (zero being the lowest) on each of the six criteria.

With the new criteria set, subgroups at the PPC were created to evaluate each program element. Subgroups included both PPC and non-PPC members (all were hospital staff) on the basis of expertise and familiarity with a specific criterion. Results and scoring recommendations were presented at a PPC meeting on October 15, 2001 for review and confirmation. Summaries of the results were tallied and made available for the program grouping leadership teams.

Retreat Day #2 took place October 18, 2001. PPC worked to finalize the rankings for each program element and the results were released on October 29, 2001. It is important to note that the decisions made during the CATS process were made based on the six criteria, and also with the consideration of other strategic decision factors such as the vision and global trends. At this interim point many of the oncology and transplant elements were in the top growth category, while sports medicine, dermatology, swallowing and orthopedics had been set to decrease.

Prior to taking final priority setting decisions to the Board of Trustees for approval, an appeals process was developed and launched on October 29, 2001. This process was added to the original project plan after consultation with DM and PAS from University of Toronto Joint Centre for Bioethics. The appeals process was created to obtain feedback on the draft five-year clinical activity recommendations as well as provide UHN stakeholders with an opportunity to appeal.

The appeals process allowed both internal (hospital staff) and external (community advisory council) to appeal decisions of PPC rankings on the basis of: (1) New Information or New Argument (the appeal is based on new information or a new argument that lends strength to the

Program Element's submission) or (2) Lack of Due Process (the appeal is based on procedural issues relating to the application of the CATS process). Letters of intent to appeal were submitted by November 12, 2001. 15 appeals were submitted all on the basis of new information, with no one appealing lack of due process. These appeals were given assistance by an appeals advisor and corporate planning staff to create an appeals presentation. Appeals came from program elements in four of the seven programs as well as one four-part appeal from the community advisory committee. Appeals asked for reconsideration and increased scoring from their original ranking on one or more of six criteria.

On December 13, 2001 all 15 appeals were heard by PPC. As a result of new data or new arguments, there were several changes to the rankings. In the end, changes were made to nine of the 15 appeals, with a significant change to five of them (significant meaning that the appeal caused a change in original growth/reduction ranking). Final results of the changes from the appeals process, along with a commentary from the CEO, were released the next day on the intranet. (See Appendix F for appeals results)

At the January 16, 2002 UHN Board of Trustees meeting, the final recommendations from the Planning and Priorities Council were presented and approved.

6.0 Evaluation of University Health Network's Priority Setting Case Study

The evaluation is organized according to the four conditions of accountability for reasonableness: *relevance*, *publicity*, *appeals*, and *enforcement*. Under each heading, we summarize key findings and for selected findings, we identify good practices and opportunities for improvements. Rather than make a recommendation for each key finding, we have chosen to highlight the most important recommendations, which are summarize in section 7.0.

Relevance

Rationales for limit-setting decisions must rest on reasons (information and values) that fair-minded parties (managers, clinicians, patients, and affected others) can agree are relevant to meeting health care needs under resource constraints in the context.

Reasons

Comments surrounding both the use and function of ‘workbooks’ and ‘criteria’ surfaced frequently during the interview analysis.

- **Workbooks:** During the CATS exercise a large volume of data was collected in order to support the program grouping leadership in their efforts to complete the workbooks. This stage of CATS made excellent progress toward a greater understanding of the services offered at UHN with more detail than had previously been accessible. New and existing staff benefited greatly from this analysis. However, with such a large amount of information on which to base decisions, some decision makers found it difficult to become familiar with all of the data. One interviewee said:

“I don’t think that anybody has actually had the ability to go through the data. I felt a bit guilty initially. And then I realized that I was probably just like everybody else, that I couldn’t go through the whole data in a way that would have allowed me to make an informed decision”.

Planners responded to this concern by creating subgroups for specific criteria in the workbook allowing an increased familiarity with the data as well as ability to pursue data discrepancies. This promoted expertise in decision making and a more fluid process. The use of subgroups did, however, introduce an element of subjectivity in determining the criteria’s exact function. Project planners created a 10-point scale as a guide for working with the criteria, which helped to decrease personal bias in decision-making.

- **Criteria:** The six criteria that were used as the main decision tool were developed after the completion of the workbooks and prior to the final CATS decisions. These criteria were different than the ones applied during the Program Grouping Methodology.. with the most significant difference being the absence of the *need* criterion in the later process. (*Table 2*) This was perceived by some to be a discrepancy in the process,

“One of the reasons we think that we succeeded in becoming a program grouping was that we were able to demonstrate population need and it’s foundational in the way we constructed this program from slightly different perspectives, to find at the volume setting exercise that population need was not a criterion that we could use, was to give with one hand and take with the other”.

The decision to exclude *need* resulted from the overwhelming desire for growth from program elements in the workbook submissions. While changing the criteria was a necessary condition in the process, the lack of explanation to participants caused concern.

“I guess it would be too strong to say the rules changed, but definitely (the need criterion) changed. There were one set of criteria for one exercise and another set of criteria for

another, and that they weren't necessarily congruent which is at one level, illogical. But that's the way it was".

"We got set up in a certain way and then we had to measure ourselves in a different way, in ways that didn't actually capture the full flavour of the work that we do. And that was a very difficult piece."

Table 2. The decision making criteria in the three priority setting processes.

Program Grouping Methodology	Program Grouping Workbooks	CATS
<i>(To determine program groupings)</i>	<i>(To determine program elements)</i>	<i>(to determine clinical volumes of elements)</i>
<ul style="list-style-type: none"> • <i>Has critical mass of services at UHN</i> • <i>Meeting a significant health need</i> • <i>Research activity</i> • <i>Promote interdisciplinary service delivery</i> • <i>Educational activity</i> • <i>Supporting UHN's vision, mission and values</i> • <i>Encompassing the health continuum</i> 	<ul style="list-style-type: none"> • <i>MOH funded or self-funded</i> • <i>Central focus for the Program Grouping</i> • <i>Essential service for catchment area</i> • <i>Educational need</i> • <i>Research strength</i> • <i>Other GTA hospitals providing / planning to provide the services</i> 	<ul style="list-style-type: none"> • <i>MOH priority</i> • <i>Interdependence</i> • <i>Impact of activity (uniqueness)</i> • <i>Research strength</i> • <i>Educational need</i> • <i>Linkage with UHN priority technologies</i>

Draft Recommendation #1: Early in the process, PPC should provide a clear description of each criterion and how it will be applied, and provide a mechanism for refining criteria based on constructive feedback.

Fair-minded parties

The issue of 'conflict of interest' and need for 'involvement of external moderators' were common among the interviewee's perspective of the priority setting process.

- ***Conflict of Interest:*** Throughout the interviews with CATS participants, there was a common concern regarding the potential conflict of interest of some decision makers who were wearing 'two hats'. This apprehension was shared by both decision makers (PPC) and program grouping leaders. Instead of eliminating conflicted parties from the process, interviewees felt

that there should be greater representation of individuals with similar conflicts of interest, i.e. more program grouping leaders.

“I think if you are going to put decision-makers that have conflicts of interest, the least you can do is have it balanced”.

Many felt that the lack of program grouping representation negatively affected the process and its outcomes. Some felt that this was also true for the lack of public involvement. One interviewee mentioned that by not having enough representation at the decision-making table, questions were left unanswered and that may have hurt the program’s score.

“After our first presentation, there were no questions raised. Yet, it was presumably at PPC level, behind closed doors, significant concerns were obviously raised because of the recommendations that came across. Yet, if we were sitting at PPC table and those things had been raised, I am sure that discussion would have been had, and we would have been able to respond to it.”

This concern was furthered by some interviewees who wanted a larger public stakeholder representation (patients, community groups, Ministry of Health).

Draft Recommendation#2: PPC should include all program grouping leaders (PGL) in decision making.

- ***Involvement of external moderators:*** The CATS process was planned and executed by a team of internal staff, committees and boards, mainly the Strategic Planning Project Director (the Director of Planning and Performance Measurement), the CEO and the CFO. The CEO along with the process planners decided to use internal staff for all facets of the process because of the staff’s ability to understand the vision of the organization at a more passionate and comprehensive level. While the majority of interviewees felt the planning and execution of the process was fair, acceptable and well done, some felt that external involvement would have been beneficial;

“If we had used an external facilitator for the clinical activity prioritization process, they would have ensured a more rigorous step by step [process including:] what are you basing that on; tell us a bit more”.

Another interviewee said in regards to improving the process;

“I would definitely have a process of external peer-review. Definitely. I think it is really important to see how our institution is viewed locally, nationally and internationally”.

This expressed want for external involvement was especially prevalent in comments surrounding the appeals process;

“The appeals process was difficult to feel comfortable in because it was the same body that we were going back to make the appeal to. ... You are going back to the same people who essentially saw the first sets of arguments. In most appeal mechanisms, you go to a separate body. If that was their opinion from the get-go, it was unlikely you were going to make them change 180 degrees.”

<p><u>Draft Recommendation #3:</u> External stakeholders should be consulted at every step of the process.</p>

Context

UHN is a world-class teaching, research and clinical hospital, however a concern regarding over-emphasis on teaching and research as well as lack of consideration for the ‘other staff’ emerged in the interview analysis.

- ***Over-emphasis on teaching and research:*** UHN has many achievements and successes that have resulted in excellence in both academics and research. UHN provides a large scale of services to a large catchment area, but as previously mentioned, it is impossible to offer every needed service. Many elements were considered in the CATS process, but some interviewees had mixed thoughts on the overemphasis of some criteria (such as teaching and research) as well as concern with the exclusion of other facets of health care and patient care (such as patient satisfaction, outcome analysis or “excellence in the act”, and cross-organizational research). In commenting on this imbalance one interviewee said:

“That program, albeit is small and is not using hospital resources, carries huge weight in profile within the community. ... If you could put it on a balance sheet, if the rate of return on this is huge for the little bit that it costs, that wasn’t considered in the equation.”

This perceived over-emphasis on teaching and research also caused problems with the data used and collected by the planning team. PPC decided to recognize only those research funds held within UHN research or its foundations. The appeals process responded to this deficiency by allowing presentation of new data. Scores that had been previously decided based on incorrect or incomplete data could be altered.

- ***Other Staff:*** Overall, the CATS process was very inclusive and representative of the staff at UHN. However, perspectives from staff in core clinical services played a minimal role, as staff

was not afforded the opportunity to discuss the potential implications of the prescribed volumes changes to their services. One interviewee said:

“(The) strategic plan document was drafted and came out again, announcing everything’s done and fixed. And for anyone in ... other areas, reading this, we notice a significant impact on what the resource requirements will be of our areas, in order to support the service, but no clarity as to how is that resource impact going to be determined... Is that okay not to include them, perhaps. The issue is the void that’s left at the end.”

There were times when individuals from core clinical services involved, but these instances left staff feeling rushed and unable to respond, “It was at the last second that I actually saw stuff. I had to respond by noon so I couldn’t even circulate it.” In discussing this topic, some interviewees commented on UHN cultural practices surrounding communication. Interviewees felt that inadequate communication in organizational decision-making forced them to be reactive, instead of allowing for proactive behaviour: “(W)e are usually put in the position of being reactive and adjusting to policies rather than being very much involved in the formation of things.”

Publicity

Limit-setting decisions and their rationales must be publicly accessible.

The Decision Makers:

Within the community of decision makers, ‘transparency’, ‘speed’, ‘communication efforts’ as well as “intended messages” were all surfaced in discussions regarding the publicity of the process.

- ***Transparency:*** The entire strategic planning process was clearly communicated to all members of PPC. Each step in the process was described in detail via presentations and updates at meetings, memos, strategic directions publications and emails. PPC was aware of the requirements to make decisions and had an understanding of the criteria and the ten-point scale. The Director of Planning and Performance Measurement communicated all necessary information to the PPC through monthly meetings, and regular emails/memos. Decision makers had a large amount of data and information at their disposal, and an understanding of why this process was being done.

UHN Community

- ***Speed:*** Many felt that the process was done too fast. This opinion was shared both by decision makers (PPC) and program grouping leaders. This caused several problems for the process including information overload (felt again by both groups), and an inability to make well-informed decisions. This cost the program grouping leaders in terms of having a less than complete understanding of the entire process, as well as a large amount of information they were unable to process. The speed of the process may have also had an effect on the education of front line staff on CATS who, throughout focus groups, expressed a limited understanding of the process. Still, a small portion of interviewees felt the opposite and stated that the process was “not rushed”, was “extremely lengthy”, and was “too detailed”.

- ***Communication Efforts:*** The planning that went into formal communication surrounding strategic planning was extensive and thorough. Employees received inserts with payroll statements, as well as an opportunity to view a video on the strategic planning process. UHN intranet was used extensively to post all of the publications, and outcomes of decisions throughout the strategic planning process. An internal newsletter, *Strategic Directions*, was published six times throughout 2001, detailing the strategic planning process. This was inserted into the weekly UHN newsletter *Caring Together*, which also addressed the strategic directions. Special scheduled meetings to inform staff of the strategic planning process were held with the Medical Advisory Committee, Fiscal Advisory Committee, Management Forum, and the Community Advisory Committees. Group email communications were sent to program grouping leaders answering specific questions and addressing the steps of the CATS process. While communication was consistent and regular to program grouping leaders, those not directly involved in CATS received little information. Although UHN intranet was used frequently for CATS communication, online publications focused on decisions made and lacked any educational component. “*Tom Talks*” (intranet service) focused mainly on strategic planning, with very few commentaries on CATS. Out of the six *Strategic Directions* publications, only one contained specific information on CATS methodology (July 23, 2001). Similarly in *Caring Together* the only information on CATS was published January 28, 2002 after the completion of the process.

- ***Intended Messages:*** Throughout the CATS process, program grouping leadership were consistently reminded and encouraged by the messages that, “This (process) is not about winners and losers”, and that “the final decision of growth, maintenance or reduction were not a ‘balancing or trading game’, since no growth would be realized without additional funding”. Despite these positive messages, staff felt that the CATS volume decisions would be

detrimental to ‘losers’ and beneficial to ‘winners’. Some interviewees felt effects from the decisions immediately and were fearful of potential unknown outcomes. Much of the communication to frontline staff was informal “word of mouth” communication which caused unnecessary fear and misunderstanding. Many front line staff felt that they did not have adequate information to process the impact of the decisions on their livelihood. This was coupled with unfavorable effects resulting from some of the formal communication that used insensitive wording (such as ‘no strategic advantage’). .

To Communities outside the Organization

- There was little to no communication of the CATS process to the community, external partners, or the general public. This was a deliberate decision made by the planners of the priority setting initiative. Neither patients nor the media were informed or involved. The only avenue that was taken to inform the public was by involving the Community Advisory Committees after the draft recommendations were made, just prior to the appeals..

Draft Recommendation #4: PPC should develop a comprehensive communication strategy that describes each stage of the CATS process, targets all hospital staff and external stakeholders, and uses multiple effective vehicles.

Appeals

There is a mechanism for challenge and dispute resolution regarding limit-setting decisions, including the opportunity for revising decisions in light of further evidence or arguments.

The inclusion of an appeals process is highly commended and was received by the majority of participants as a good and fair part of the CATS process. An appeals advisor oversaw all 15 of the appeals, and all were heard by PPC. Concerns surrounding the appeals process focused on one issue: the same people that heard the arguments originally, heard them at the appeals process. The name ‘*appeals process*’ led participants to have an inaccurate conception of the purpose of the process. Most interviewees assumed a quasi-judicial process where a different appeals body (non-PPC) would hear the presentation the second time through.

Draft Recommendation #5: UHN should change the name of its ‘appeals’ process to ‘revisions’ process and describe it as another opportunity for consultation and revision.

Other appeals process concerns stemmed from the lack of communication and transparency in the reasons for which appeals were accepted or not. Although a formal document outlining the final clinical activity targets was prepared, there still remained apprehension toward the reasons for which appeals were successful or unsuccessful. While some criteria had in depth written explanations behind the new rankings, others did not.

“(T)he requirement for the appeals were based on data....we provided the data that they said we should ...you would have thought that if you [made] the arguments based on the data that you are supposed to give, it would make a change in the eventual outcome and it didn’t. That’s why I am saying there was clearly subjectivity going on and there were decisions being made from a different perspective rather than just the data”.

Draft Recommendation #6: PPC should ensure that the quality and precision of documenting reasons for decisions is maintained throughout the appeals process.

Enforcement

There is either voluntary or public regulation of the process to ensure that the first three conditions of accountability for reasonableness are met.

The CEO and senior management of UHN ensured that the CATS process was inclusive and reflective of the culture, goals and context of the organization. By collaborating with scholars from the University of Toronto Joint Centre for Bioethics for both the appeals process as well as for the case study analysis, UHN has made a statement of concern and commitment to enforcing a fair decision making and priority setting in UHN itself and in hospitals nation-wide.

Draft Recommendation #7: UHN should repeat this case study and evaluation with each priority setting

7.0 Summary of Good Practices and Recommendations for Improvement

The priority setting process is an iterative process with a goal of making priority setting fair and legitimate. While not all of these recommendations will directly effect the execution of the process itself, all of the seven recommendations will work to improve the overall process and its fairness. The seven recommendations that have been presented have been finalized with feedback and approval from the decision makers themselves. The summary of the recommendations is as below.

1. Early in the process, PPC should provide a clear description of each criterion and how it will be applied, and provide mechanism for refining criteria.

2. PPC should include all program grouping leaders (PGL) in decision making.
3. External stakeholders should be consulted at every step of the process.
4. UHN should develop a comprehensive communication strategy that describes each stage of the CATS process, targets all hospital staff and external stakeholders, and uses multiple effective vehicles.
5. UHN should change the name of its 'appeals' process to 'revisions' process and describe it as another opportunity for consultation and revision.
6. PPC should ensure that the quality and precision of documenting reasons for decisions is maintained throughout the appeals process.
7. UHN should repeat this case study and evaluation with each priority setting.

8.0 Discussion and Conclusions

This case study has provided a detailed description of the priority setting process at UHN along with an in-depth analysis of the actual decision making process. This report provides the opportunity for senior management of UHN to learn from the CATS process and apply those lessons to future priority setting initiatives. Implementation of recommendations developed through this case study process will foster and ensure improvement and growth within the organization. The CATS process was overall a large success, with wide reaching benefits and good practices.

After evaluation using accountability for reasonableness, seven recommendations were made to further the pursuit for fair and legitimate priority setting. All of the recommendations are feasible and easy to implement in upcoming priority setting initiatives.

It is important to acknowledge the innovation that the senior management of UHN has demonstrated in undertaking this project. This report is a necessary first step in an on-going process of description, evaluation and implementation. It is vital to continue to learn from the priority setting initiatives that UHN embarks upon, and to track the implementation of lessons learned throughout.

The implementation or ‘action phase’ of research should follow this report. It is a vital step in continuing to strive for excellence in priority setting, in the organization and globally. UHN can learn and grow more by continuing to study and analyze priority setting initiatives, and more immediately by implementing the lessons learned through this project in upcoming priority setting processes. In order to make the most of the recommendations given, careful consideration should be given to how to implement, what implementation will look like and what desirable outcome are. It is this ‘action’ phase that will continue to place UHN as a global leader in health care and health care decision making.

It is relevant to UHN to point out innovations that are being implemented in other similar institutions. For example at Sunnybrook & Women’s College Health Science Centre (S&W), they have adopted accountability for reasonableness as an ethical framework to help decision making throughout the organization. This includes all decisions that define who they are as an organization. It is important that the decisions that shape the organization involve the stakeholder community as a key part of improving the effectiveness of decision making. By ensuring fairness in any decision making process organizational morale improves since people within the organization know and understand why the decisions were made, and are willing to accept the decisions, particularly at the procedural level. This framework helps increase transparency and inclusivity regarding all decision making. S&W Senior Management is committed to applying accountability for reasonableness to all decision making.

Acknowledgements:

I would like to thank Tom Closson who funded and facilitated this research. In particular, the help provided by Sarah Downey, Colin Smith and Catherine Wang.

9.0 Appendices

Appendix A – The University of Toronto Joint Centre for Bioethics

The University of Toronto Joint Centre for Bioethics is a partnership among the University of Toronto; Baycrest Centre for Geriatric Care; Centre for Addiction and Mental Health; Centre for Clinical Ethics of Providence Centre, St. Joseph's Health Centre, and St. Michael's Hospital; The Hospital for Sick Children; Mount Sinai Hospital; Sunnybrook and Women's College Health Sciences Centre; Toronto Rehabilitation Institute; and University Health Network (including Princess Margaret Hospital, Toronto General Hospital, and Toronto Western Hospital).

Our mission is to provide leadership in bioethics research, education, and clinical activity.

Our vision is to be a model of interdisciplinary collaboration in order to create new knowledge and improve practices with respect to bioethics.

Our values include academic and clinical excellence, intellectual freedom, integrity, respect, inclusiveness, and justice.

The JCB does not advocate positions on specific issues, although its individual members may do so. Our goals are:

- To foster interdisciplinary research and scholarship, link education to research, and disseminate research findings to improve policies and practices.
- To support undergraduate, graduate and postgraduate educational programs in bioethics.
- To support clinical ethics activities including continuing education for health care providers, ethics committees, ethics consultation, and projects to address specific issues arising in JCB hospitals.
- To foster collegial discussion of bioethics issues throughout the JCB participating institutions, and to serve as a resource for the media, policymakers, and community groups.

Appendix B – Interview Guide

UHN Clinical Activity Target Setting Interview Guide May 22, 2002

Thank you for agreeing to be interviewed. The purpose of this interview is to collect your views on the recent Clinical Activity Target Setting process at UHN. Clinical Activity Target Setting is a large part of our Strategic Planning and together they are a type of institutional priority setting. Our overall research program is designed to describe, evaluate and improve priority setting in health care institutions, such as hospitals like UHN.

You are being interviewed along with many others from many different parts of the organization in order to capture diverse viewpoints regarding the strategic planning process. Our research study has three objectives: 1) to describe the Clinical Activity Target Setting process – which tells what decision makers ‘do’; 2) to evaluate the description against a leading framework called “accountability for reasonableness” – which tells what decision makers ‘should do’; and 3) to develop and implement strategies for improving the process based on the description and evaluation.

In this interview you will be asked to describe the recently completed Clinical Activity Target Setting process at UHN. Before we begin, do you have any questions?

Questions:

1. Please describe the Clinical Activity Target Setting process from your perspective.
2. Please describe your role in the process.
3. What do you think about how the process unfolded?
4. Was the process fair? Explain.
5. How could the process be improved?

*** All responses will be probed for clarity and comprehensiveness.

Appendix C – Program Grouping Components and Core Clinical Services

Program Grouping	Services Included
Advanced Medicine and Surgery	<ul style="list-style-type: none"> • Benign Lung Diseases (Respirology, Thoracic Surgery) • Benign Digestive Diseases (Gastroenterology, General Surgery) • Benign Kidney Disease (including Nephrology and excluding Renal Transplant) • Endocrinology (Diabetes - with links to Heart and Circulation, Transplant and Community and Population Health) • Infectious Diseases (HIV, Travel and Tropical Medicine, Tuberculosis, Infection Control)
Community and Population Health	<ul style="list-style-type: none"> • Healthy Connections: Family and Community Medicine, Children & Adolescent Health, Healthy Living Centre, Senior Wellness, Pain, Women's Health, Artists' Health, Community and Multicultural Health, Health Resource and Wellness Centre, Portuguese Mental Health and Addictions, Interpreter Services, Community Chiropody, Diabetes Education, Family Support, Mental Health Urban Partnership, Assertive Comm. Treatment, Women's Detox, Kensington Clinic, and Multicultural Health • Psychiatry: Inpatient and General Psychiatry, Eating Disorders, Emergency Psychiatric Assessment Unit, Emergency Crisis Team, Geriatric Psychiatry • Women's Health Services: Midlife and Hormonal Health, Osteoporosis, Aging & Quality of Life • Regional Geriatric Program • General Internal Medicine • Minimally Invasive Surgery (General Surgery) • Urology
Heart and Circulation	<ul style="list-style-type: none"> • Cardiology • Cardiovascular Surgery • Cardiac Care Unit • Cardiovascular Intensive Care Unit • Cardiac Short Stay Services • Invasive Cardiology: Percutaneous Intervention (PCI), Electrophysiology Studies, Adult Congenital, • Clinics: Cath Labs, SPACE (Secondary Prevention Adult Cardiac Evaluation), CERT (Cardiac Evaluation Rapid Treatment), Cardiac Rehab, Behavioural Cardiology, Cardiac Clinics, CV Sleep Lab • Cardiac Diagnostics (Nuclear Cardiology, Echo, Stress, Holter, ECG) • Vascular Surgery • Vascular Centre
Musculoskeletal Health and Arthritis	<ul style="list-style-type: none"> • Orthopaedic Surgery • Rheumatology • Plastic Surgery • Hand Program • Clinics: All Hand, Orthopaedics, Plastics and Rheumatology Clinics, Lower Extremity Arthritis, Hyperbaric, Bone Density/Body Composition, Patient Education Centre, Arthritis Community Research and Education, Northern Outreach Program) • Rehab Solutions

Program Grouping	Services Included
Neural & Sensory Science	<ul style="list-style-type: none"> • Neurosciences: • Neurology • Neurosurgery • Neuro Critical Care • Neuro-urology • Neuro-psychiatry • Epilepsy Monitoring Unit (EMU) • Spine • Stroke • Clinics: All Neurology, Neurosurgery, Spinal, ENT (Ear, Nose & Throat) and Ophthalmological Clinics, Electrophysiology, Aneurysm, Sleep • Diagnostic Services: Neuroimaging, Interventional Neuroradiology (INR), Neuropathology, EEG, EMG • Neurovascular • Ophthalmology: Neuro-Ophthalmology, Strabismus, Cataracts, Cornea/External Eye Disease, Glaucoma, Vitrea-Retinal Surgery) • Ear Diseases and Disorders of Balance: Complex Middle Ear Surgery, Cochlear Implantation, Genetics of Hearing Loss, Neuro-Otology • Audiology
Oncology and Blood Disorders	<ul style="list-style-type: none"> • Medical Oncology (Lymphoma, Leukemia, Bone Marrow Transplant) • Haematology (Malignant and non-malignant) • Radiation Medicine • Surgical Oncology • TGH: Surgical Wards and Operating Rooms for Surgical Oncology patients with Gastro-intestinal, Genito-urinary, Thoracic and Gynaecology Cancers • TWH: Minimally Invasive Surgery, Neurosurgical Oncology, Spine Oncology • PMH: Breast and Endocrine • All PMH Clinics • PMH Lodge • Psychosocial Oncology • Palliative Care • Familial and Genetic Counseling • Blood Disorders: Coagulation, Thalassemia & Sickle Cell
Transplantation	<ul style="list-style-type: none"> • Lung Failure & Transplant (Respirology, Thoracic Surgery) • Kidney Failure & Transplant (Nephrology, Urology – including Laparoscopic Nephrectomy) • Heart Failure and Transplant (Cardiology & Cardiac Surgery) • Liver and Intestine Failure & Transplant (Gastroenterology and General Surgery) • Microsurgical Repair of Organ Arteries, Hand Transplant, Composite Tissue Transplant (Plastic Surgery) • Outpatient Clinics: Ambulatory Transplant
Core Clinical Services	<ul style="list-style-type: none"> • Emergency Medicine • Anaesthesia • Laboratories • Diagnostic Imaging • Operating Rooms • Allied Health (Nutrition Services, Occupational Therapy, Physiotherapy,

Program Grouping	Services Included
	<p>Speech Language Pathology, Social Work, Respiratory Therapy, Pharmacy, Chaplaincy)</p> <ul style="list-style-type: none"> • Med/Surg ICUs • Day Surgery Units • Medical Day Units • Endoscopy • Adult Clinical Genetics • Clinical Bioethics • Dentistry/Oral Maxillofacial Surgery • Hyperbaric Chamber

APPENDIX D: Clinical activity Target Setting Timeline

Step One: Define Program Groupings – June 27, 2001

Step Two: Define Program Elements – July 9, 2001

Step Three: Program Element Data Profile – July 23, 2001

Step Four: Program Element Analysis – July-Aug 2001

Step Five: Activity Target Setting – July-Aug 2001

Step Six: Activity Targets to PPC – Sept 7, 2001

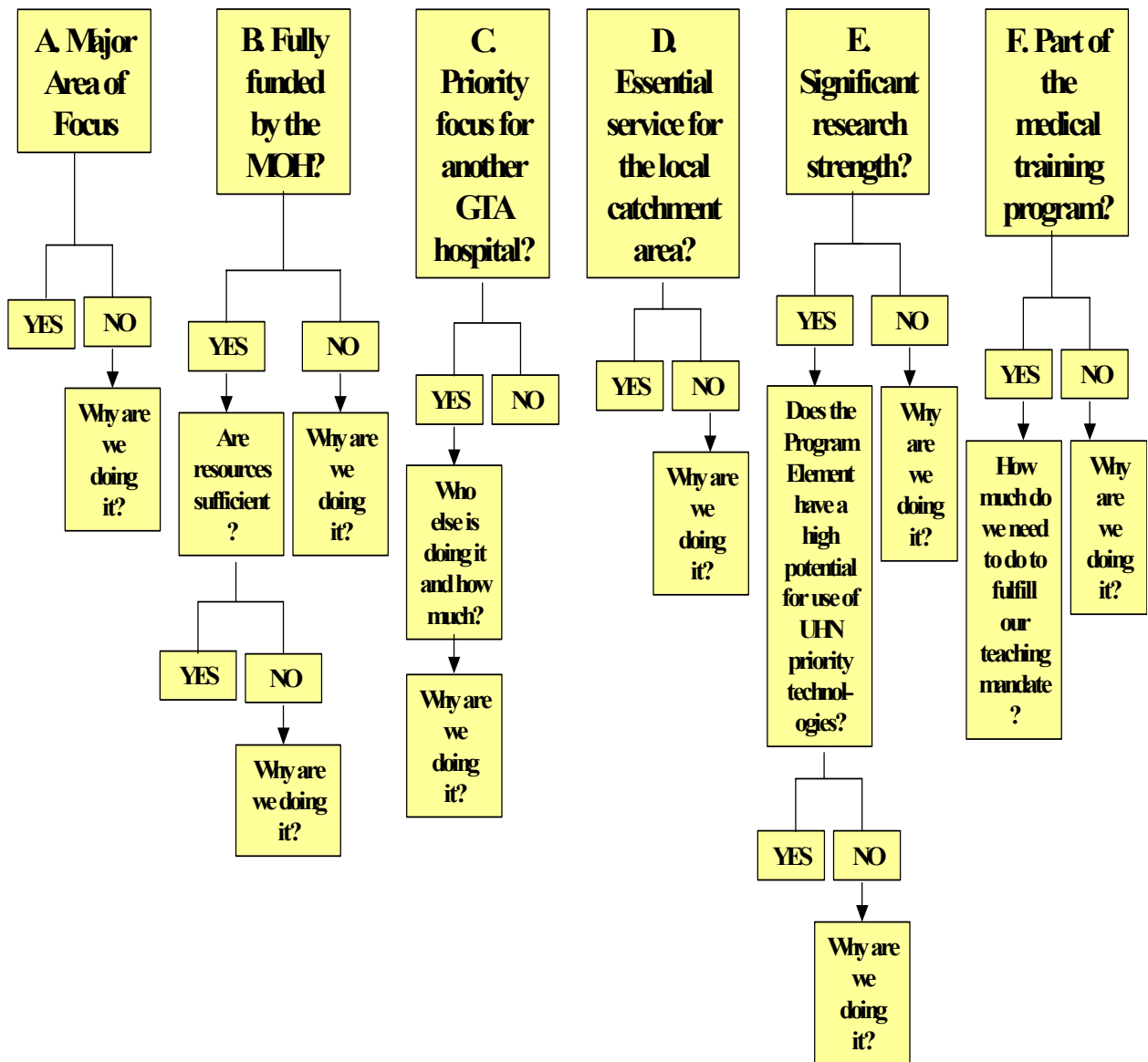
Step Seven: PPC Review Activity Targets – Sept 2001

Step Eight: Call for appeals – Oct 2001

Step Nine: PPC Hears all appeals - Dec 13, 2001

Step Ten: Report Targets to the Board – Jan 16, 2002

Appendix E: Decision Tree



Appendix F: Program Element Criteria Appeals Results

Program Element	MOH Specific Funding	Inter- dependence	Market share/ Unique	Education Strength	Research Strength	Priority Tech	Total	Total Change
MHA								
General Orthopaedics - Oct. 18	1.0	5.0	1.0	4.0	1.0	2.0	14.0	1.3
General Orthopaedics - Dec. 13	1.0	6.0	1.0	4.3	1.0	2.0	15.3	
Sports Medicine - Oct. 18	1.0	1.0	1.0	5.3	2.0	4.0	14.3	0.7
Sports Medicine - Dec. 13	1.0	1.0	1.0	6.0	2.0	4.0	15.0	
Arthroplasty - Oct. 18	4.0	1.0	2.0	4.2	4.0	3.0	18.2	4.9
Arthroplasty - Dec. 13	4.0	3.0	3.0	5.1	4.0	4.0	23.1	
Arthritis & Related Disorders - Oct. 18	1.0	3.0	5.0	7.7	8.0	6.0	30.7	0.0
Arthritis & Related Disorders - Dec. 13	1.0	3.0	5.0	7.7	8.0	6.0	30.7	
Plastics/ Hand - Oct. 18	1.0	3.0	3.0	6.0	3.0	5.0	21.0	1.0
Plastics/ Hand - Dec. 13	2.0	3.0	3.0	6.0	3.0	5.0	22.0	

Heart and Circulation								
Interventional Cardiology - Oct. 18	5.0	5.0	7.0	7.0	4.0	5.0	33.0	0.0
Interventional Cardiology - Dec. 13	5.0	5.0	7.0	7.0	4.0	5.0	33.0	
Vascular - Oct. 18	2.0	4.0	3.0	8.1	3.0	3.0	23.1	6.0
Vascular - Dec. 13	2.0	5.0	5.0	8.1	5.0	4.0	29.1	

Neural and Sensory Science								
Neuro-Oncology - Oct. 18	1.0	5.0	3.0	7.5	5.0	8.0	29.5	4.0
Neuro-Oncology - Dec. 13	1.0	5.0	7.0	7.5	5.0	8.0	33.5	
Ophthalmology - Oct. 18	1.0	4.0	3.0	7.0	6.0	4.0	25.0	0.0
Ophthalmology - Dec. 13	1.0	4.0	3.0	7.0	6.0	4.0	25.0	
NeuroOphth/NeuroOtolology - Oct. 18	1.0	2.0	4.0	7.3	5.0	3.0	22.3	0.0
NeuroOphth/NeuroOtolology - Dec. 13	1.0	2.0	4.0	7.3	5.0	3.0	22.3	
Balance - Oct. 18	1.0	1.0	2.0	3.0	3.0	2.0	12.0	2.0
Balance - Dec. 13	2.0	1.0	3.0	3.0	3.0	2.0	14.0	
Benign ENT	1.0	1.0	2.0	4.7	3.0	2.0	13.7	

Community & Population Health								
Women's Health - Oct. 18	1.0	3.0	2.0	5.0	7.0	6.0	24.0	1.0
Women's Health - Dec. 13	1.0	3.0	2.0	6.0	7.0	6.0	25.0	
Family & Community Health - Oct. 18	1.0	4.0	1.0	6.3	3.0	2.0	17.3	0.0

Family & Community Health - Dec. 13	1.0	4.0	1.0	6.3	3.0	2.0	17.3	
Comm&Multicultural Health - Oct. 18	1.0	4.0	2.0	5.0	1.0	1.0	14.0	
Comm&Multicultural Health - Dec. 13	1.0	4.0	2.0	5.7	1.0	1.0	14.7	0.7

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