



## Priority setting at the micro-, meso- and macro-levels in Canada, Norway and Uganda

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### Abstract

The objectives of this study were (1) to *describe* the process of healthcare priority setting in Ontario-Canada, Norway and Uganda at the three levels of decision-making; (2) to *evaluate* the description using the framework for fair priority setting, accountability for reasonableness; so as to identify lessons of good practices.

**Methods:** We carried out case studies involving key informant interviews, with 184 health practitioners and health planners from the macro-level, meso-level and micro-level from Canada-Ontario, Norway and Uganda (selected by virtue of their varying experiences in priority setting). Interviews were audio-recorded, transcribed and analyzed using a modified thematic approach. The descriptions were evaluated against the four conditions of “accountability for reasonableness”, *relevance*, *publicity*, *revisions* and *enforcement*. Areas of adherence to these conditions were identified as lessons of good practices; areas of non-adherence were identified as opportunities for improvement.

**Results:** (i) *Description:* at the macro-level, in all three countries, cabinet makes most of the macro-level resource allocation decisions and they are influenced by politics, public pressure, and advocacy. Decisions within the ministries of health are based on objective formulae and evidence. International priorities influenced decisions in Uganda. Some priority-setting reasons are publicized through circulars, printed documents and the Internet in Canada and Norway. At the *meso-level*, hospital priority-setting decisions were made by the hospital managers and were based on national priorities, guidelines, and evidence. Hospital departments that handle emergencies, such as surgery, were prioritized. Some of the reasons are available on the hospital intranet or presented at meetings. *Micro-level* practitioners considered medical and social worth criteria. These reasons are not publicized. Many practitioners lacked knowledge of the macro- and meso-level priority-setting processes. (ii) *Evaluation—relevance:* medical evidence and economic criteria were thought to be relevant, but lobbying was thought to be irrelevant. *Publicity:* all cases lacked clear and effective mechanisms for publicity. *Revisions:* formal mechanisms, following the planning hierarchy, were considered less effective, informal political mechanisms were considered more effective. Canada and Norway had patients’ relations officers to deal with patients’ dissensions; however, revisions were more difficult in Uganda. *Enforcement:* leadership for ensuring decision-making fairness was not apparent.

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**Conclusions:** The different levels of priority setting in the three countries fulfilled varying conditions of accountability for reasonableness, none satisfied all the four conditions. To improve, decision makers at the three levels in all three cases should engage frontline practitioners, develop more effectively publicized reasons, and develop formal mechanisms for challenging and revising decisions.

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## 1. Introduction

Priority setting, the allocation of resources between competing demands, occurs in every health system at the macro-level (national, provincial), meso-level (regional, institutional) and micro-level (clinical programs). Priority setting determines the sustainability of any health system, whether primarily publicly or privately financed, and so is one of the greatest challenges faced by policy makers in both developed and developing countries [1,2].

Developed countries, such as Canada and Norway, face growing challenges because of an aging population, advancements in expensive medical technology and increased demands fuelled by increasing access to information [3,4]; while developing countries such as Uganda, face growing challenges of an increasing gap between the health needs and the meager resources available to respond to them, underdeveloped capacity for decision-making, and weak institutional infrastructure [5,6]. Priority setting in developing countries has been said to be ad hoc [7]. Since they differ economically, socially and politically (Table 1), decision makers in these varying contexts have used different approaches to set priorities.

Canada, Norway and Uganda are also different enough with regards to their experiences with priority setting to provide informative comparators. Canada lacks a national level priority-setting process, decisions are decentralized to the provincial governments which have varying priority-setting processes. Furthermore, it has a complex web of interconnected priority-setting processes that vary across contexts. It has been called a laboratory from which lessons can be drawn [8,9]. Norway, on the other hand, has one of the most responsive health care systems world wide. Although decentralized to the county level, Norway also has a national level priority-setting process. It was among the first countries to attempt to systematise

priority setting by setting up a national council for priority setting as early as 1987 [10–12]. Uganda is the only low-income country among the three. While it also has a decentralized public health care system, similar to Norway, most of the priority setting occurs at the national level and districts follow the national guidelines. Uganda has much experience making difficult priority-setting decisions in the face of insufficient resources, but it has not yet gained as much experience in systematizing its priority setting [13,14]. Although priority setting in Uganda should be evidence based, it has been said to occur more by chance than choice [15]. A systematic study of priority setting in these three health systems would yield valuable lessons. However, to date, no detailed cross-country comparisons between these diverse contexts exist.

Such comparisons would necessitate using a common lens, such as a conceptual framework, for examining, discussing, or thinking about diverse data. Accountability for reasonableness' with its four conditions (*relevance, publicity, revisions and enforcement*) (Box 1) is a leading conceptual framework for evaluating fair priority-setting processes. It has been used by both decision makers and scholars to identify good practices and opportunities for improvement in relation to priority setting [16,17]. We use this framework in our comparisons.

The objectives of this study were to (1) *describe* the process of healthcare priority setting in Ontario-Canada, Norway and Uganda at the macro-, meso- and micro-levels; (2) *evaluate* the description using a common conceptual framework, accountability for reasonableness; (3) identify lessons of good practise.

To the best of our knowledge, this is the first study to describe, evaluate, and compare lessons across different priority-setting contexts in developed and developing countries.

Table 1  
Context of priority setting in Canada, Norway and Uganda

Indicators	Canada	Norway	Uganda
Total population	31,510,000	4,533,000	25,827,000
GDP per capita (Intl. \$)	30,429	35,533	1038
Life expectancy at birth m/f (years)	78.0/82.0	77.0/82.0	47.0/50.0
Child mortality m/f (per 1000 live births)	6/5	4/4	146/133
Total health expenditure per capita (Intl. \$)	2931	3409	77
Total health expenditure as % of GDP	9.6	9.6	7.4

Source: World Health Statistics (2005) [18].

### Box 1: The four conditions of accountability for reasonableness

*Relevance:* rationales for priority-setting decisions must rest on reasons (evidence and principles) that ‘fair-minded’ people can agree are relevant in the context.

*Publicity:* priority-setting decisions and their rationales must be publicly accessible—justice cannot abide secrets where people’s well being is concerned.

*Revisions/appeals:* there must be a mechanism for challenge, including the opportunity for revising decisions in light of considerations that stakeholders may raise.

*Enforcement:* there is either voluntary or public regulation of the process to ensure that the first three conditions are met.

## 2. Methods and materials

### 2.1. Design

We conducted case studies of priority setting at the micro-, meso- and macro-levels of policy making. A case study is “an empirical” inquiry that investigates a contemporary phenomenon within its real-life context. It is a structured, yet flexible approach to data collection and analysis that has historically been used to describe institutions and their actions [19]. We limited our inquiry to priority setting broadly relating to the hospital sector—in publicly funded health systems, hospital spending is traditionally the largest portion of health spending.

### 2.2. Setting and sampling

The studies were carried out in Ontario-Canada, Norway and Uganda. The countries were selected by virtue of their variant social, political and economic contexts, and their experiences with priority setting (see Section 1). We employed a combination of theoretical and snowball sampling. Initial respondents were identified by virtue of their involvement in priority setting in their context. Those participants identified subsequent respondents who they perceived to be key informants in relation to priority setting. Sampling continued until theoretical saturation was reached—that is, until subsequent interviews did not yield new data.

At the macro policy level, initial respondents were identified by respondents from the meso-level. To capture potential differences in views, we purposefully sampled respondents from a variety of departments within each national ministry of health (Uganda and Norway) and the provincial level in Ontario. At the meso policy level, we purposefully identified a teaching hospital in each country and the initial respondent was either the hospital director or CEO, who identified other key informants. At the micro policy level, respondents worked at the identified hospital. The directors/CEOs identified the heads of the different departments as key informants. These identified other key informants within their respective departments. We purposefully sampled respondents from the different levels of clinical training to capture potential variations in responses.

In total, we interviewed 184 respondents (see Table 2); the majority (103) were health practitioners from the micro-level. The rest were members of the executive or management committees, the hospital board or administration. Almost one third of the respondents at the micro-level were heads of departments and involved in meso-level priority setting. These

Table 2  
An overview of the study respondents

	Country			Total
	Canada	Norway	Uganda	
Number of respondents at micro-level	16	31	56	103
Number of respondents at meso-level*	12	19	14	45
Number of respondents at macro-level	10	7	19	36
Total	38	57	89	184

participants provided both meso- and micro-level perspectives.

### 2.3. Data collection

We conducted key informant interviews using a semi-structured, pre-tested interview guide whose questions were derived from the conceptual framework. The interviews lasted an average of 45 min and were audio-recorded and transcribed. During data collection, the researcher listened to the tapes before the subsequent interviews to identify the emerging themes to pursue in the following interviews.

### 2.4. Data analysis

To *describe* priority setting, we used a modified thematic approach: *first*, we read through whole interviews to identify general themes. *Second*, we identified the major concepts or ideas in specific chunks of sentences, and labelled them. An open and creative stance was sought throughout the process to facilitate identification of new ideas that related to different aspects of priority setting. *Third*, we grouped similar concepts together to form categories that were more precise, complete, and generalizable [20]. To *evaluate* priority setting, we compared the description against the four conditions of *accountability for reasonableness* (described below). Finally, we compared findings between countries to identify key lessons.

### 2.5. Accountability for reasonableness

‘Accountability for reasonableness’ provides a framework for evaluating fairness of priority-setting processes. Since principles of justice and human rights emphasize the need for a fair, deliberative process to provide legitimacy for priority-setting decisions,

whereas fairness may mean different things to different people, ‘accountability for reasonableness’ unifies these disparate ideas [21]. It is theoretically grounded in justice theories emphasizing democratic deliberation [22,23]; it is empirically grounded in the context of real-world priority-setting processes, and is therefore able to give practical guidance to decision makers [24]. According to ‘accountability for reasonableness’, a fair priority-setting process should meet four conditions namely: *relevance*, *publicity*, *revisions*, and *enforcement* (described in Box 1).

Validity was addressed in three ways. *First*, we interviewed people from different levels about the same phenomenon—a kind of triangulation. *Second*, we documented all research activities to allow for critical appraisal of the methods. *Third*, we presented our findings to respondents who confirmed the reasonableness of our interpretations. Nevertheless, the description of the priority-setting processes is as perceived by the respondents themselves and may not be representative of the whole picture.

*Research ethics.* Ethics approval was obtained from the Committee on the Use of Human Subjects of the University of Toronto, and the ethics review committees of the participating countries and hospitals. Written consent was obtained from all study participants. All interviews were anonymized. All data were kept confidential.

## 3. Results

The results of this study are organized in two sections: *first*, we *describe* the priority-setting processes (including the actors, the reasons, how decisions are disseminated and any provisions for revisions) at the three levels in each country. *Second*, we *evaluate* the descriptions using accountability for reasonable-

ness. Verbatim quotes are included to illustrate key points. The cross-country lessons are presented in Section 4.

### 3.1. Describing priority setting

#### 3.1.1. Ontario-Canada

3.1.1.1. *Macro-level.* Macro-level respondents described a dual process with regards to priority-setting decisions for resource allocation to hospitals. In a *top-down* process, the provincial government determines priority areas and the number of procedures government is willing to pay for, then contracts with the hospitals to provide the specified care, e.g. provincial priority services and the wait time initiative (presented in Box 2). Some respondents thought these represented real needs in the population, while others thought they were simply government's political platform.

#### **Box 2: Provincial protected and wait-list programs in Ontario, Canada**

##### *Protected services*

1. Provincial priority services:
  - Selected cardiac services;
  - Chronic kidney disease;
  - Organ transplantation;
  - Selected cancer services.
2. Provincial strategies/projects
  - Cardiac rehabilitation;
  - Ontario stroke strategy;
  - Telemedicine;
  - Home daily/nocturnal haemodialysis;
  - Thoracic aortic aneurysm repair;
  - Visudyne therapy.

##### *Wait time services*

- Selected cardiac services;
- Total hip and knee replacements;
- Cataract surgeries;
- Magnetic resonance imaging;
- Cancer surgery.

*Source:* JPPC. Hospital Accountability Agreement for 2005–2006 and 2006–2007 [25].

“... I think it is a very instructive example of top-down priority setting where a new government comes in and says ‘one of our commitments to the people of the province is to reduce these wait times and they direct the Ministry to reorganize the financing in such a way as to ensure that there is money available to increase particular types of procedures ...’”

Simultaneously, in a *bottom-up* process, hospitals identify their priorities and submit them to cabinet through the Ministry of Health. Salient considerations include costs of treatment and patient volumes, which are summarised by a formula (Box 3), previous allocations, efficiency, emergencies and advocacy. The priority-setting process involves the provincial politicians, bureaucrats, the Ontario Medical Association (OMA), and the Joint Policy and Planning Council (JPPC) whose main purpose is to develop and revise the funding formula for hospitals. The process mainly involved hospital managers and health professionals.

Decisions are disseminated through letters, meetings and the Internet. However, the reasons are usually not provided. Some respondents expressed need for more details:

“... there is a sense that the bare bones of the approach are published. So it will be things like – we use the funding formula to make allocations. But often the intricate details aren't released. ...”

In case of disagreement, individuals at the macro-level may complain to their immediate supervisors, but this is not encouraged. Revisions are possible if they have good arguments, if the issue affects patients' lives, and if arguments are presented during the budgeting process.

3.1.1.2. *Meso-level.* Priority setting in hospitals begins with the different heads of departments soliciting in-put from frontline practitioners to determine departmental priorities. These are compiled, and submitted through the hospital management, and the board, to the ministry of health. The public is represented through the hospital board. However, frontline practitioners reported lack of involvement:

“... the biggest complaint I would hear from anybody is ‘who is making these decisions?’ That seems to be

### Box 3: Components of the hospital funding formula in Ontario, Canada

#### *The funding formula*

The funding formula is designed to provide a more equitable and fair method of allocating funds amongst hospitals. It is a combination of the rate and volume models.

#### *Rate*

Compares actual and expected cost per equivalent weighted case. The expected unit cost considers the following factors:

- The size of the hospital;
- Teaching factor;
- Tertiary factor;
- Chronic factor;
- Isolation factor.

#### *Volume*

This calculates the expected utilization of three major case mix groupings in acute care: medical surgical, pregnancy and child birth, and newborn and neonate. The expected utilization is based on characteristic population need against the provincial average. The volumes formula is a means of providing additional funds for hospitals serving communities with volumes below the provincial averages.

1. Adjustment factors for medical/surgical volumes:
  - Population size, age, gender;
  - Relative mortality: measured in deaths/1000 over provincial average;
  - Rural (percent geography): population density less than 25 people/km<sup>2</sup>;
  - Aboriginal (percent population).
2. Adjustment factors for pregnancy and childbirth volumes:
  - Age/sex make up of the population;
  - Fertility rate.
3. Adjustment factors for newborn and neonatal volumes:
  - Age/sex makeup of the population;
  - % low birth weight infants.

*Source:* JPPC: publication no. DP3-7.

the common bite – almost everybody you talk to is asking; who have they talked to?”

With regards to priority programs and the wait time initiative, meso-level managers only implement decisions made at the macro-level. Decisions are often guided by provincial guidelines, historical budgets, the hospital strategic and business plans, evidence, and external pressure. Programs that handle emergencies and severe conditions, e.g. surgery, are prioritized. Decisions, but rarely reasons, are available through meetings, letters, newsletters, press releases and the intranet. In case of disagreements, clinicians may appeal to the clinical program chief or the medical advisory committee who forward the complaint to the hospital executive committee and the board. The latter can appeal *formally* to the JPPC (but was thought to be less effective), and *informally* by writing to the premier or other politicians, the bureaucrats or the press:

“... Informally, they go to their local politicians and make a lot of noise. The politicians then go to the minister’s office. This is a more effective way for them to get more money; it is a very political process ...”

Revisions of decisions are possible if the hospital proves that they are using their budget efficiently and are unable to improve efficiency without affecting the quality of patient care. However, the recent introduction of hospital accountability agreements, which commit hospital managers to ensuring that the hospital budgets do not exceed the specified amount, were thought to be a potential barrier to appeals.

*3.1.1.3. Micro-level.* Practitioners reported constraints with regards to hospital beds such that patients are admitted on other wards or on the corridors and operating room time where patients have to wait long for certain procedures. Routinely, emergencies were seen first and the rest on a first come first serve basis. Elective patients were prioritized according to urgency, severity and ability to benefit from treatment. Other salient considerations included evidence, provincial guidelines, and duration on the waiting list. Occasionally, cost, patient’s age, employment and social status were considered (e.g. patients whose illnesses affect their livelihood are prioritized). These reasons are not routinely publicized. Moreover, some

respondents thought the information to be too complex for the public's comprehension:

“... It is quite complex ... I don't think they will understand it. So, its not people trying to hide that information, but its like a mechanic of a car – you have to trust the people looking after your car so to say ...”

If treated unfairly, patients can talk to the attending physician, write to management, and report to the public relations officer, the hospital board or the press. Some respondents thought these mechanisms were not clear.

### 3.1.2. Norway

3.1.2.1. *Macro-level.* Two priority-setting processes were described: *first*, priority programs are identified as “action plans”. These include neglected areas such as geriatrics, cancer and, of late, psychiatric care. They are prioritized at the macro-level and funded separately. *Second*, hospitals submit their priorities through the regional health authorities (RHAs), to cabinet. Priority-setting decisions are based on catchment population characteristics (e.g. size, age structure, rate of unemployment), distance between patients and facilities and historical budgets. In addition, the Diagnostic Related Groups (DRG) formula, which considers the complexity, severity and resource intensity of managing a given diagnostic group, is used in hospital funding. National priority-setting guidelines such as those found in the Lønning II report were said to be influential. Recommendations from this report have been used to develop the Patients' Rights Act (Box 4), which guarantees the population equal access to necessary specialised care. However, many respondents thought that these guidelines are sometimes overridden by public pressure and lobbying:

“... Theoretically we have criteria in the Lønning II report ... But also we have pressure groups- it has a big impact for priority setting for the politicians. Patient groups who are able to complain are able to direct politicians ...”

The decisions are disseminated through meetings, written documents and the Internet. Some of the reasons such as the priority programs and the DRG proportions are publicized on the Internet. In case of

#### **Box 4: The Lønning II commission and the Patients' Rights Act (Norway)**

*Principles from the Lønning II commission report*

To have priority, these three conditions have to be met:

- A. *Health state* (at least one of the following conditions must be met):
  1. Loss of prognosis: the risk of dying from the disease within 5 years is greater than 5–10%;
  2. Diminished physical or mental functioning;
  3. Crippling pain that cannot be reduced by non-prescription pain killers.
- B. *Expected benefit* (at least one of the following conditions must be met):
  1. Increase in probability of 5 years' survival >10%;
  2. Improved physical or mental functioning;
  3. Reduction of pain which leads to improved level of functioning;
  4. Nursing and care that can secure adequate nutritional intake, natural functioning ... and the opportunity for external stimulus.

#### C. *Cost-efficiency*

Costs should stand in a reasonable relation to the benefits of the treatment/care (Source: Norheim [10]).

*The Patients' Rights Act under the Norwegian law*

1. The patient has a condition with reduced prognosis;
2. The patient has an expected utility of the health care;
3. There's a reasonable relationship between the costs and effectiveness of the service.

When a patient is referred from a primary to secondary care, the referral should be evaluated within 30 days. Based on the

evaluation, the patient is then informed about whether or not they are assigned a right to necessary care. If they are assigned, then a maximum waiting time is given. If this waiting time is violated, the patient is helped to find an alternative facility. The costs are incurred by the original hospital where the patient was referred. *Source:* [http://odin.dep.no/engelsk/news\\_publ](http://odin.dep.no/engelsk/news_publ).

disagreement, individuals at the ministry can appeal through the departmental heads to cabinet. Revisions are possible if the case is compelling. The RHA can appeal with difficulty since they are responsible for executing Ministry of Health policies and guidelines within their regions; in addition, hospitals are not allowed to re-allocate resources from the “action plan” projects. Respondents at the health institution thought that revisions are not always effected in cases of sensitive issues such as regional re-allocation of resources.

*3.1.2.2. Meso-level.* Priority setting for the block funding is initiated by the hospital’s economic department, which presents the previous year’s performance to the heads of the departments. The departmental heads identify their priorities (with in-put from the frontline practitioners) and submit them through the hospital management, and the board, to the RHA. The public participates through the board.

Decisions are guided by evidence, previous budgets, national guidelines and priorities, equality, costs, equity, and advocacy. Programs that handle emergencies, e.g. surgery, and “prestigious” diseases (e.g. cardiac surgery) are prioritized. Decisions should also be guided by the national guidelines such as the Patients’ Rights Act, but this was not well understood at the micro-level. Moreover, there were no national mechanisms for the operationalization of the Patients’ Rights Act, and the RHA had commissioned a project to correct for this. The decisions and the guidelines (but not the reasons) are publicized through meetings, the hospital intranet, and newsletter. The practitioners’ access to this information varied:

“... We get information on which decisions and which arguments they feel are the best or they have put most emphasis on ...”

“... Someone should decide that this department should have this amount of money ... (but) I have often asked how do they decide?”

If there are disagreements, clinicians can appeal through the departmental heads, to the hospital management, who appeal to the RHA. In case of big cuts (such as decisions to reduce obstetric services in rural areas), the public has demonstrated, written letters to the politicians and the media.

Some respondents explained that there were no formal mechanisms that handle disagreements:

“... There are no formal mechanisms where they could protest. A board of a regional enterprise should deliver health services according to the budget that they have received. However, there are informal ways; ... by lobbying in parliament that is a very popular way to go; or interest groups can contact the department of health, and it is possible to have your interest promoted within the system ...”

Some respondents thought that revisions are possible in case of a strong and well timed case, accompanied with public pressure. However, respondents at the micro-level thought revisions were not always possible:

“... Nothing happens. You are just confronted with the economic reasons, ... when we make our priority list they don’t listen to us ... I think the reason for this is that many of the decision makers are not medical people, they are economists, and they just make the decisions economically ...” (physician).

*3.1.2.3. Micro-level.* The manifestation of resource constraints at this level varied with department. Surgical departments complained of long wait times; the department of medicine complained of bed shortages:

“... In the medicine department we do not have room for anyone so we should have more beds but they have

cut more beds . . . we have no beds, we have all these patients in the corridors and I find it very hard . . .”

Routinely patients are triaged and seen in order of emergency. Waiting time is allocated according to urgency, patient’s ability to benefit from treatment, evidence and the Patients’ Rights Act. While some respondents at this level thought the patient’s act was a good development, others thought that it was politically motivated, and a way of projecting the rationing responsibility to practitioners.

“... The act is not well matched with the resources available and the capacity. Some divisions are so under staffed that setting a tight ceiling on the waiting time causes a lot of pressure which the practitioners are not in control of . . . this is something that they want to say as politicians, and then they can always blame us for not coming up to it . . .”

Patients who live far away and are being cared for by family are prioritized for admission. Occasionally, treatment costs, the patients’ social status, ability to cope, and lifestyle, are considered.

“... If a patient lives a life that they want and the cost of their treatment is high then I have to think that they should live a good life. We have many drug addicts in the department and if am going to treat them they have to change their lives, because the cost of their treatment is very high . . .”

Routinely, the decisions, but not the reasons, are communicated to the patients and their family. In addition, information on the wait time and the Patients’ Rights Act is given to the individual patients and is also available on the Internet. However, some respondents thought the system of rights assignment to be too complex for public comprehension.

If there are disagreements, patients can complain to the attending physician, call their GP, or write to the hospital management. Legally, patients can seek a second opinion from another physician. Some patients are innovative:

“... I decided to dismiss a lady and she made a decision,” “I don’t want to go home, I want to be here”. So, I said, goodbye and she was obviously not

happy—within three hours she was back. She just went to her GP saying ‘oh oh, I can’t breath and she was re-admitted . . .”

For elective patients, there is no formal mechanism of grievance resolution for patients not assigned a right to necessary health care.

### 3.1.3. Uganda

*3.1.3.1. Macro-level.* According to our respondents, the government carried out a formal evidence-based priority-setting process to determine the Uganda National Essential Health Care package (UNEHP) (Box 5 ). However, at its current per capita health expenditure of Intl. \$ 77, the government cannot afford to finance the package at the estimated cost of Intl. \$ 119.8 per capita. Hence, priorities are set within the package and this occurs within the framework of the Health Sector Strategic Plan (HSSP), which draws together national and sub-national, technical and non-technical, stakeholders in health. Initially the most cost-effective interventions against malaria, HIV/AIDS and Tuberculosis were prioritized. However, more interventions have been added each year. Districts and hospitals must set their priorities within this framework in collaboration with the ministry officials, national and international development partners.

In addition to the UNEHP, resource allocation to hospitals has favored primary and secondary units over tertiary units. Therefore, over time, funding to tertiary units has remained almost constant relative to the lower units—while patient volumes have increased (see Fig. 1).

Resource allocation between districts is based on a formula which considers historical allocations, the district population, infant mortality rates, and existing resources. Political pressure, advocacy and international priorities also play a major role:

“... If you look at the strategic plan, we didn’t envisage having universal coverage for anti-retroviral. It mostly came from the international arena, with the global fund; that’s when it became a priority; it was the expectation of the international community . . .”

The decisions are publicized through meetings (these may be internal or involve the public, e.g. the health assembly) documents letters, and newspa-

**Box 5: Components of the Ugandan National Essential Care package**

Component	Key interventions
Communicable disease control	Malaria: improved case management, vector control, personal protection, selective prophylaxis, drug efficacy monitoring STI/HIV/AIDS: IEC, counselling, condom use promotion, treat STDs blood safety, reduce mother to child HIV transmission, palliative care Tuberculosis: early diagnosis and treatment with short course
Integrated management of childhood illnesses	Integrated management of childhood illnesses: promotion of use in all facilities, community and households
Sexual and reproductive health and rights	Provide essential pregnancy and delivery care  Provide information and services for family planning Sex education and life skills for adolescents Support organizations working to eliminate female genital mutilation and any form of violence against women
Other public health interventions	Immunization: expand coverage for vulnerable populations  Environmental health: promotion of personal, household, institutional, community and food hygiene. Environmental and occupational hazard legislation School health: health education, screening and treatment of common ailments, environmental sanitation and good nutrition practices Health education and health promotion: intensify IEC activities Epidemics and disaster preparedness and response: institutionalize policy, plan and capacity to respond to emergencies Improving nutrition: household food security, healthier eating habits especially for mothers and children. Protection from micro nutrient deficiencies Interventions against diseases targeted for eradication
Strengthening of mental health services	Promote and support a basic primary mental health programme supported by appropriate referral services
Essential clinical care	Provision of basic care for injuries and common illnesses including non-communicable diseases

Source: Uganda-National Health Policy (1999a) [28].

pers. Because of low literacy rates, some respondents thought it would be useless to publicize some of the decisions and reasons. If there are disagreements, individuals at the ministry appeal through the division heads, to the senior management committee. Revisions are not always possible due to lack of resources, but good evidence, good timing, lobbying, ‘spirited fights’ and the use of politicians may yield results.

*3.1.3.2. Meso-level.* Priority setting at this level occurs within the framework of the hospital strategic plan. The process begins with the different subunits that submit their wish list through the head of department, the hospital management committee, to the Ministry of Health. However, the hospital senior management

makes the final decisions. Credible priority setting is constrained by extreme lack of resources:

“... The current requirement in terms of non-wage is about 37.5 billion [Ug.Sh], but within the resource base of the country, the government always sets limits. That figure right now is at 9.9 billion, which is about 27% of our total requirement ... (Hence) there is perpetual stock out of sundries, drugs; the machines that are supposed to be serviced are not serviced ...”

Decisions are based on historical budgets, and a formula which caters for the volume of activity, emergencies, and need. Surgical departments were prioritized over medical departments. Some respondents thought

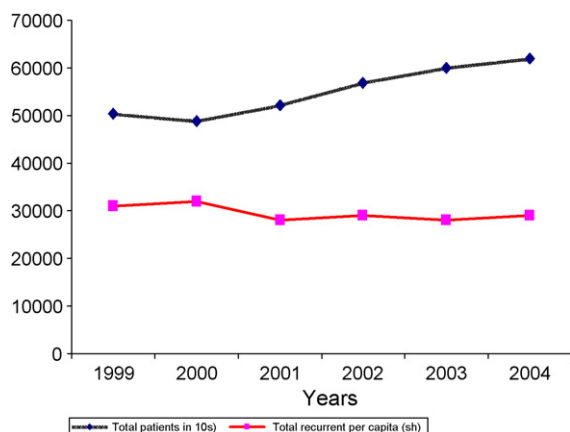


Fig. 1. Total number of patients (10s) compared to releases on total recurrent budget per capita in the hospital in Uganda [29].

there was lack of adherence to the need criterion in practice and that lobbying was more effective:

“... I guess the people who are very aggressive and go out and talk to the director and to management committee, are the ones who probably get their budgets fulfilled ...”

“... You see, I may be getting things (resources) because I put a little pressure on people (management) ... I always get what I want ...”

The decisions, but not the reasons, are disseminated through meetings, and circulars. Once in a while the media is used to reach the public. If there are disagreements, practitioners complain directly or through the departmental head to top management or the director. However, many respondents lacked knowledge of any formal appeals mechanisms. Revisions are not always possible. Although the managers expressed willingness to revise their decisions, this is not always followed by resource (re)-allocation due to extreme lack of resources. This discourages practitioners from appealing:

“... We usually sit in the departmental meetings, and we talk. But you know sometimes when you talk a lot, you get exhausted and you talk no more. If you talk and you see change you will talk again. But if you talk continuously and you see no change, then you stop talking ...”

**3.1.3.3. Micro-level.** Practitioners are “forced” to set limits to access hospital beds and drugs due to extreme lack of beds and first line drugs. It is not uncommon to find patient admitted on the floor or going without the treatment of choice. Routinely, patients are triaged and seen in order of emergency; the rest are seen on a first come first serve basis. Patients who are very ill, live far from the hospital and are on intra-venous treatment are prioritized for admission. For treatment; guidelines, availability of drugs and the patient’s ability to purchase drugs at market prices, are considered. Often, colleagues, relatives and VIPs are prioritized:

“... There is no point deciding on a treatment plan which the patient cannot get because of cost or it’s not available. If you find that the person cannot afford an expensive drug, then you need to look to prescribe what is available ...”

Decisions are communicated to patients and their relatives, but reasons are not routinely provided. In case of disagreements, patients can complain to the nurses or attending physician, the director and top management, use the suggestion box, or go to the press. Some respondents did not know of any mechanisms for patients to appeal while others thought patients were either too naive or too scared to complain.

### 3.1.4. Evaluating priority setting

In this section we evaluate the priority-setting processes, described in the previous section, using the four conditions of accountability for reasonableness: *relevance, publicity, revisions* and *enforcement* (described in Box 1).

**3.1.4.1. Relevance.** Decisions at the *macro-level*, were based on various rationales including the hospital funding formula and wait time in Ontario and Norway, the DRG system and the Patients’ Rights Act, in Norway, and the UNEHP in Uganda. These were thought to be relevant by all respondents since many thought they were evidence based. However, other rationales that many thought were influential, such as politics and interest group pressure, were thought to be irrelevant. Only in Uganda were international development partner’s priorities influential. According to our respondents, their relevance was questionable since the devel-

opment partners' priorities did not always align well with national priorities.

At the *meso-level*, the reasons were similar in all three countries, and included the hospital strategic plan, a formula that considers patient volumes, macro-level priorities, emergencies and surgical disciplines. These were thought to be relevant although practitioners from medical departments did not think prioritizing surgical departments was relevant. Additional criteria, such as lobbying and politics, were not thought to be relevant.

At the *micro-level*, reasons such as emergencies, severity, potential to benefit and evidence were thought to be relevant. However, there was lack of agreement on the social reasons. Only a few practitioners from Ontario and Norway thought drug costs were relevant criteria, but in Uganda almost all respondents identified drug costs as relevant reasons since these costs are often borne directly by patients. Most respondents indicated that there is no opportunity for members of the public to meaningfully engage in priority setting.

*3.1.4.2. Publicity.* At the *macro-level*, respondents described various forms of dissemination of the allocation decisions such as the Internet, meetings, circular or letters, and newspapers. Ontario and Norway have posted information such as the hospital allocation formula, and criteria for allocating waiting time on the Internet, but the effectiveness of this has not yet been documented. Lack of easy access to the Internet in Uganda may contribute to its not being used as a mode for publicity. All respondents thought that meetings that involve various stakeholders, such as the JPPC meetings in Ontario, and the national assembly and the health sector strategic planning process in Uganda, were effective publicity mechanisms. In Uganda, newspapers are used for publicizing district budget allocations. Circulars and letters are also used. However, in all cases, meso-level respondents observed inconsistencies between what is publicized and the actual allocations. Sometimes adjustments are made within the publicized criteria such as the funding formula, and these adjustments or the reasons for the adjustments, are never publicized. Moreover, in most instances, the reasons are not publicized. The micro-level respondents expressed lack of knowledge of the macro-level process. In Norway for example, several practitioners did not know about the Patients' Rights Act. It may be

too early to evaluate this, but this may either be due to ineffectiveness of the publicity strategies or lack of interest on the part of the practitioners. The Internet could be viewed as a way to reach the general public but several respondents thought the information was too complex for them to understand.

At the *meso-level*, all institutions relied mainly on meetings and circulars. Norwegian and Canadian institutions also used the Internet, and hospital newsletters, which were not used in Uganda due to lack of the necessary resources. Our respondents, especially the managers, observed that meetings were poorly attended, possibly due to competing priorities, and that the attendees rarely pass on the information to the frontline practitioners who are not directly involved. Micro-level respondents who reported that they often do not receive the information corroborated this finding; moreover, the reasons are never communicated. Although some of the practitioners expressed lack of interest in the information, almost all expressed interest in at least being consulted about such decisions. None of the institutions publicized the reasons to the general public, unless there were big cuts.

At the *micro-level*, in all cases, reasons are only given if the patients ask. Norwegian patients are also given a printed form of the Patients' Rights Act. In both Ontario and Norway, the public can access information on wait times for cardiac and cancer care on the Internet. However, several respondents thought that this information might not be well understood by the public.

*3.1.4.3. Revisions.* All the three countries provided formal mechanisms for resolving disagreements, but participants consistently felt that informal mechanisms were more effective for achieving revisions. Formal mechanisms mostly follow the planning hierarchy. Planners at the *macro-level* could appeal through the planning hierarchy but this was not encouraged since the planners should have participated in the process, and hence had an opportunity to appeal during the process. In Ontario, the JPPC was perceived by participants as not very effective. In all three countries, respondents reported that appeals were discouraged by budgetary restrictions. These were said to hamper but not prevent appeals from the *meso-level*. For example, although in Ontario institutional level managers were asked to sign hospital account-

ability agreements, and the RHAs in Norway are given strict guidelines from the health department to ensure that hospitals remain within budgetary limits, all respondents noted that informal lobbying of politicians, and public demonstrations, were effective in achieving revisions. There were similar findings in Uganda.

At the *meso-level*, formal and informal revision mechanisms were described. The formal process follows the planning hierarchy, but direct lobbying of hospital senior management was thought to be more effective. In Norway and Uganda, micro-level respondents expressed frustration with the lack of revisions due to lack of resources, which discouraged them from appealing.

At the *micro-level*, the most common mechanism available to patients was to talk to the attending practitioners. Patients also used other mechanisms such as talking to the head of department, or the head of the institution. In addition, Norway and Ontario have patient relations officers (patient-ombudsman) who are responsible for handling patients' disputes. The institutions had suggestion boxes, but patients seldom used these. Frontline practitioners from Norway observed that their patients rarely complained. This may be perceived as satisfaction with the decisions but it could also be due to lack of knowledge of the formal mechanisms or feeling of inferiority. The latter was explicitly mentioned as a barrier to communication for patients in Uganda.

**3.1.4.4. Enforcement.** In all the three countries, at all three levels, there were no clear mechanisms for ensuring that the first three conditions of publicity, relevance and revisions were met. Leadership, for ensuring fair priority setting, was not apparent.

## 4. Discussion

In this paper we have described priority setting at the macro-, meso- and micro-levels of policy making, in Ontario, Norway and Uganda, with a specific focus on hospitals, and evaluated the descriptions using a leading conceptual framework 'accountability for reasonableness'.

To the best of our knowledge this is the first study that compares priority-setting processes between

developed and developing countries across the three levels of health policy decision-making. The conceptual framework was useful in identifying lessons of good practices that can be shared between countries. Moreover, the research strategy we employed was flexible and can be used to describe, evaluate and improve priority setting in other healthcare settings [30].

### 4.1. Lessons from the description

The description provided in this paper showed how macro-level decision makers set the context for priority setting at the meso- and micro-levels. Macro-level planners provide guidelines for the lower levels to follow that inhibit their absolute autonomy to set priorities (e.g. the Patients' Rights Act in Norway), which has both legal and economic implications if violated [31], and the hospital commitment agreements in Ontario and funding for priority programs in both countries. With regards to the Patients' Rights Act in Norway, meso- and micro-level, respondents expressed varying reactions: (i) some respondents could only vaguely explain what the act was about, (ii) although some Norwegian practitioners thought it was a reasonable strategy to deal with wait times, others thought it was a politically motivated process, (iii) meso-level respondents thought the macro-level were deferring responsibility and (iv) macro-level thought it would be effective in motivating clinicians to comply with the regulations.

Only in Uganda were international development partners' priorities influential. A previous study by Kipiriri et al. [32] noted that many respondents in Uganda felt that international development partners should play a reduced role in determining priorities in the Ugandan health system [32].

Meso-level allocations reflected macro-level priorities in regard to nationally determined priority programs. All cases demonstrated reluctance of frontline practitioners to ration care at the bedside, as has been described previously [33]. Although there were evidenced-based criteria, these were often 'adjusted', and the reasons for the 'adjustments' were not publicized. Social criteria were common to micro-level priority setting in all three countries, as has also been documented elsewhere [34]. These findings are similar to those.

## 4.2. Lessons from the evaluation using accountability for reasonableness

### 4.2.1. Relevance

In all three cases and at all three levels, respondents thought that the use of scientific and economic criteria for priority setting were relevant, but some of the other reasons that influenced decision-making were questionable, such as advocacy and political pressure. In these cases the rationales should be made more explicit and should be publicized to stimulate public debate about their relevance. Greater transparency would discourage attempts at “gaming the system” and would improve the decision-makers’ accountability to the public for their reasons [8–10,17,21].

### 4.2.2. Publicity

All cases demonstrated efforts to publicize the decisions but not the reasons. Decision makers at all levels should consistently make accessible the reasons for their decisions—it is at the level of reasons that others can engage with priority-setting decisions. Multiple publicity vehicles have been used. Norway and Ontario have used the Internet, in addition to other strategies, to publicize their decisions [26,27]. Lack of access to the Internet in Uganda makes it less useful for publicity [35]. However, in all cases, target populations, including frontline practitioners and patients, seemed not to have access to the information. Frontline practitioners have been shown not to use the Internet often [36]. Although the public maybe interested, the information presented on the Internet may be too complex and should be synthesized to facilitate the public’s understanding. It would be beneficial to explore more interactive methods for publicity such as the use of chat rooms on the Internet, where appropriate, and news papers where the public is invited to respond. Limited access to the Internet in Uganda, points to more reliance on print media. The use of the newspapers or hospital newsletters as is done in Ontario and Norway, maybe more feasible now, but the use of the Internet could also be facilitated. Newsletters should publicize the decisions and the reasons behind the decisions made in the hospital. Since lack of dialogue is a barrier to meaningful publicity [25], town hall meetings, such as the national health assembly, in Uganda [7], or citizen’s juries [1] should also be encouraged. However, since the meetings that have been held were

said to be poorly attended, there is need to motivate attendees.

### 4.2.3. Revisions

Lack of revisions discourages appeals—responsiveness is a key feature of fair priority setting and helps enhance participant satisfaction [37]. Norway and Ontario have formal and informal mechanisms for appealing as has been also found in previous studies [1,12,40]—a patient’s ombudsman at the micro-level and the planning hierarchy at the meso- and macro-levels. Uganda would benefit from having an explicit person or committee for patient’s to appeal, and this information should routinely be provided for the patients. Informal mechanisms, although effective, are unfair, and should be discouraged. Challenge and revisions may be hindered by accountability agreements in Ontario, the strict guidelines given by the health department in Norway, and the severe lack of resources in Uganda. The Ontario JPPC model could be used elsewhere, however, even in Ontario, such an institution should be facilitated to effectively function as an appeals mechanism. Furthermore, approaches such as the citizen’s jury used in other contexts, could also be tried [38].

### 4.2.4. Enforcement

Several findings demonstrate room for improvement with regard to the conditions of fairness in priority setting, including: the lack of adherence to written criteria in the three cases; the lack of public accessibility of priority-setting decisions and reasons; the ability to by-pass formal appeal mechanisms and use informal lobbying. This may be particularly relevant in Uganda where the decisions have serious implications for patients’ lives and welfare. In previous studies, the enforcement condition has been linked to ethical leadership in priority setting [39,40]. It is the responsibility of leaders in each priority-setting context to ensure that the conditions of fairness are met.

Although all the cases did not meet all the four conditions of accountability for reasonableness; some cases, such as the meso-levels in Norway and Ontario, met several of these conditions. Part of this could be due to the prevailing economic and political and institutional capacity. A context with meagre resources such as Uganda may lack the capacity to cover services such as—employing a patient’s ombudsman and facilitate

publicity through the Internet. Furthermore, the content, complexity and mode of publicity may also be influenced by the level of decision-making, the target audience and the political context. Hence, the need to work out what would be appropriate according to the local realities [5,13,39].

#### 4.3. Lessons from the cross-country comparison

All the cases presented in this paper demonstrated that health planners and practitioners at all levels desire systematic priority setting. This is contrary to some literature that indicates that priority setting is not relevant when resources are limited [41]. Some of the major priority-setting challenges faced by decision makers in all the contexts (lack of transparency, low stakeholder and public engagement, lack of clear mechanisms for public engagement, impact of macro-level decisions on the meso-level and micro-level decisions), were similar and have been described in some of the literature [3,9,12,13,19].

Ontario presents lessons from which Uganda and Norway can benefit. *First*, they have the JPPC which not only developed the hospital funding formula but also provide forum for resolving disputes regarding the funding. Although it was said to be less effective, if empowered, it could provide a standard way of dealing with disagreements. *Second*, the formula which was developed by the JPPC is available on the Internet and is interactive in that institutions are able to cross-check the results provided by the JPPC. This improves transparency. Uganda would especially benefit from this at the national level, whereby a clear formula is used for the districts, but it is unclear to the institutions how their funds are calculated.

Several lessons can be learned from the Norwegian Patients' Rights Act. This is a strategy to reduce waiting time, which involves financial sanctions as an incentive to comply [25]. The findings that micro-level respondents did not understand the implications and motives, behind the Patients' Rights Act, underscores the need for more publicity, and debate about the Act; a lesson for all the three countries. Decision makers at the national level need to operationalize their policies, such as the Act at the meso- and the micro-level. It is important that frontline practitioners gain ownership of the act since they are the end users. Ontario has recently introduced several initiatives to reduce wait-

ing time, and have recently announced minimum wait times for certain conditions, which is similar to Norwegian experience. However, they could draw some lessons from the Norwegian experience, particularly that it is not enough to define the maximum wait time but this should be operationalized and may necessitate incentives and mechanisms (such as financial sanctions) to ensure compliance.

Uganda demonstrated the most participatory macro-level priority-setting process among the three countries in the development of the Health Sector Strategic Plan where key stakeholders, including both technical and 'lay' participants, meet face to face to discuss the annual national priorities. In addition, Uganda also holds national health assemblies where the performance of the health sector is discussed with stakeholders, including members of the public. Ontario and Norway would benefit from such strategies geared to improving direct public engagement—continued reliance on the idea that 'the public is represented on the board' is insufficient. Given its resource base, the Ugandan health budget is inadequate to cover the identified priorities and it is not surprising that among the three countries, it is the only country where development partners influence priority setting [33]. Since they influence priority setting, the economic, institutional capacity and political commitment to fair processes would determine the kind of trade offs different countries may be willing to make.

#### 4.4. Limitations

Our study had several limitations. *First*, we have described priority setting as perceived by our respondents, which may not reflect the objective priority-setting process. However, the degree of disparity may be an indicator of the degree of publicity of the priority-setting process, which in itself is a relevant finding to this study. *Second*, there is a difference between portraying and conducting a fair process. However, interviewing respondents at the different levels of priority setting helped us triangulate and validate findings. *Third*, we are not able to generalize our findings but they provided us with in-depth insight in the priority-setting processes of the cases we described. *Fourth*, interviewing the public was beyond the scope of this study but would have helped us validate our findings with regards their role in priority setting.

#### 4.5. Concluding remarks

Priority setting remains a challenge to planners in both developing and developed countries. Cross-country comparisons of the priority-setting processes, using a common framework, provide a strategy for identifying relevant lessons of good practices that can be shared and are useful in improving priority setting in the specific contexts. However, given that priority setting is a political process that is influenced by the social and economic contexts, more work needs to be done to systematically assess the impact of these contextual factors on the outcomes of the evaluation of priority-setting processes using accountability for reasonableness.

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