Comparison of social values in health priority setting: the experiences of seven countries

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Abstract
Background: Priority setting is a key function to optimize the allocation of limited healthcare resources. Technical and judgmental criteria are used in priority setting decisions. The present study aims to compare the social values in some countries’ health care system based on Clark-Weale framework.

Methods: We searched the PubMed and Scopus to find published studies on the role of social values in priority setting based on the Clark-Weale framework. We checked references in order to include landmark papers which were not found in the previous step. On the basis of this framework, we subsequently compared content and process values based on which priorities are set in identified studies.

Results: Our review showed that this framework is applied to describe social values in priority setting in Australia, England, China, Germany, Iran, Republic of Korea, Thailand, Latin American countries, and USA. Countries apply the social values in different ways. Some of them consider an extended range of values and some use only a limited number of values. Content values are often more reliable than process values. Contextual characteristics and having committees in operation to advise priority setting tasks had significant roles in taking social values into consideration in the process of health priority setting.

Conclusion: It is difficult to examine how exactly health priority setting decisions are influenced by social values in health systems. However, a comparative picture of values and their relative importance can contribute to understand the status quo and under-represented values.

Keywords: Clark-Weale Framework; Delivery of Health Care; Health Priorities; Social Values

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Introduction
Health systems around the world are responsible to meet the health needs of populations (1). Ever tightening healthcare budgets in both developed and developing countries make it necessary to allocate resources in a limited number of competing needs (2, 3). Therefore, priority setting in health systems becomes an inevitable task (4, 5). Various approaches are used for distributing the resources and
health technologies among hospitals and providers (6, 7). Countries use criteria and values with a varying degree of importance in setting priorities (8-10). However, most countries rely on financial and technical criteria to make decisions (5, 11). Since those criteria do not suffice, studies call to consider other criteria and emphasize on the importance of social values. As a matter of fact, people are affected by healthcare decisions; therefore, their concerns and priorities need also to be taken into consideration (12). People expect to be informed on the content and process of health priority setting (4). Public participations in priority setting would legitimize decisions (13). It is possible to ask about their values through open meetings in different places including subway stations, shopping malls, universities, and other places (14-16). In some countries, City Councils and focus groups are the best ways for public participation in important issues.

The extent to which social values are taken into consideration differs based on political, cultural, and economic characteristics of countries (17). To involve public view in decisions, countries may benefit from direct participation of people such as representative of patients or consumers in decision making committees or may identify social values through research findings (18, 19).

In other words, different sets of values are considered in countries according to the context of the community. Daniels and Sabin’s Accountability for Reasonableness Framework promotes fair priority setting processes; it includes four criteria: relevance, publicity, appeal/revision, and enforcement (20). The first three criteria imply the importance of societal values in health priority setting decisions. However, Clark and Weale have presented a framework of social values that includes process and content values (13). Transparency, participation, and accountability comprise process values. Solidarity, equity, cost-effectiveness, clinical effectiveness, and freedom of choice comprise the content values (Table 1). This framework contains almost a full range of values and criteria, which is why we decided to use it as a criterion for the comparison of countries. The Clark-Weale framework has been used to examine the association between social values and decisions on the use of health technology in Thailand, Republic of Korea (now on Korea), China, and England, Germany, USA, Australia, and certain countries in Latin America. Recently, Iran has also adopted an approach to involve public views on health policies.

Evidence-based healthcare management calls for the best available research findings in making decisions. In this line, the present study aimed to compare the role of social values in health priority settings in Australia, England, China, Germany (22), Iran (19), Korea (23), and Thailand (26). Other countries (Latin America, USA) did not meet our criteria for the comparison and thus we excluded them from the analysis of findings. In the analysis, we used the Clark-Weale framework.

Methods
The present study was a narrative review of literature. We searched a variety of sources to find relevant studies conducted based on the Clark-Weale framework. We searched PubMed, Scopus, Cochrane library, and Google Scholar databases. A combination of key terms was used in the search. These key terms included “Priority Setting”, Health or Healthcare, Clark-Weale or Clark and Weale, and “Social Value” or “Societal Value.” For example, the strategy search for PubMed was: “Social value” [Mesh] OR “Societal value/Social value” [Title/Abstract]) AND “priority setting” [Title/Abstract]) OR “setting priority” [Title/Abstract]) AND “Clark-Weale” OR “Clark and Weale”.

We also relied on backward reference checking. To increase the comprehensiveness of literature search, we scanned reference lists of papers.
Table 1. Social values in the Clark-Weale framework (2012)

<table>
<thead>
<tr>
<th>Process values</th>
<th>Content Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost-effectiveness</td>
<td>Participation using the views of the public in decision-making</td>
</tr>
<tr>
<td>Clinical effectiveness</td>
<td>Transparency Explaining institutions involved and the laws considered in decision-making</td>
</tr>
<tr>
<td>Individual choice</td>
<td>Accountability Explaining the reasons for decisions</td>
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<tr>
<td>Solidarity</td>
<td></td>
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<tr>
<td>Equity</td>
<td></td>
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<tr>
<td>Achieving expected outcomes via appropriate health technology application</td>
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<tr>
<td>Achieving the expected treatment outcomes</td>
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<tr>
<td>having the right to choose among different treatment options and health care providers</td>
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<tr>
<td>people support against the financial risks associated with health costs</td>
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<tr>
<td>having equal access and availability of health services for all people</td>
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</tbody>
</table>

Landmark papers were also identified based on the number of citation obtained in databases such as Web of Science. We included the studies with their publication date starting from 2000/01/01 up to 2015/12/31. The editorial letters and review studies were excluded.

Results

Our review showed that, totally nine, countries including Australia, England, China, Germany, Iran, Korea, Thailand, Latin American countries, and USA applied this framework to describe the social values in health priorities. However, the experiences of Latin American countries were not exactly based on this framework, neither was the study related to the USA. These two studies were therefore excluded from the analysis.

The National Institute for Health and Clinical Excellence (NICE) is the main body for health decisions and allocating the resources. It aims to improve the quality of care and ensure equal access to health and medical services through applying validated evidences. Furthermore, health communities in England are required to consider and apply the guidance of NICE for making health care decisions.

Process value

NICE performs according to the framework that the Department of Health determines. NICE and Secretary of State for Health have common cooperation. For example, NICE is advising the Secretary of State regarding potential improvements in the provision of health services and provides medical information. Most importantly, NICE considers values such as transparency and participation through involvement of stakeholders, independent committees, and experts for developing the guidance. The Secretary of State for Health informs NICE about all subject matters. All technology appraisal guidance might be appealed on particular grounds. An appeal panel considers a special technology appraisal guidance. Moreover, a NICE guidance can be reviewed judiciously.

NICE works with an extended range of participants including the representative of public, private, voluntary, and community sectors, NHS (National Health Service) experts, local authorities as well as patients and providers. They can contribute to the development of NICE guidance and quality principles as well as assisting in their implementation. The Appeal committee is responsible for appealing the technology appraisal guidance. The committee can present appeals for hearing and written submissions.

Content values

NICE guidance is developed based on the comprehensive evidence. The highest standard is applied to analyze and interpret an evidence. The outcomes of interventions must be judged based on multiple sources of information. NICE makes decisions based on the evidence of clinical- and cost-effectiveness. However, it often requires human judgments since, in addition to the technical dimension, a societal dimension also needs to be considered. Therefore, an advisory committee of NICE also considers social values. Those values are given in a formal document.
“The Social Value Principles”. This document forms the foundation of NICE guidance and provides NICE’s advisory bodies on how to apply social value judgments in health priority decisions. Since health services in England is free of charge at the point of services, cost-sharing is irrelevance to the country health system. Comprehensive criteria are developed to protect low-income people and people with chronic diseases (21).

**Germany**
The Institute for Quality and Efficiency in Health Care (IQWiG) makes decisions on health priorities based on an integrated evidence base, specifically health technology assessment studies. It develops six types of assessments that are relevant to assist decision makers in the Federal Joint Committee (FJC).

**Process values**
Decisions to do medical interventions are made by the FJC. The representatives of payers, providers, and independent members participate in FJC meetings. FJC is one of the most important bodies that is able to influence social health insurance decisions. The Federal Ministry of Health is other substantial body that has a fundamental influence on decisions. In fact, the ministry acts as an advisory entity in the German health system. The rules that should be considered in decisions are presented in the Social Code Book V (Ref). A significant rule is that IQWiG should apply the international principles of evidence-based medicine and health economic methods to assess the functions. The evidence of Randomized Controlled Trials (RCTs) is more important than other types of evidence to make health decisions. This means that clinical effectiveness is a pivotal value in health priority setting in Germany. Moreover, patient reported outcomes are used as the main criterion for evaluating a technical evidence. Given that FJC is the main body in making decisions, it is responsible for accountability and for the rationality of decisions for public and the government. The information which provides a basis for decisions is publicly available.

By law, IQWiG is required to apply the views of pharmaceutical industries and public groups as a part of assessment processes. The public cannot participate in the assessment sessions but can be involved in the meetings of FJC. This dimension of German Health system resembles a participation function in the NICE in the UK. Although insurance companies primarily play a key role in assessing the performance and quality of decisions, their influence on decisions is unclear.

**Content values**
Cost-effectiveness is one of the most critical criteria in health priority decisions. Pharmaceutical companies must report the cost-effectiveness of new drugs before introducing to markets. Once evidence of cost-effectiveness for a drug is reported, IQWiG and FJC conduct primary assessments and examine the benefits and harm of a new drug in comparison with existing drugs.

The social value judgments of IQWiG are less transparent compared with the social value principles of NICE. In fact, IQWiG is a legislative body. It makes decisions about health care while it cannot judge the values. It considers the solidarity as a minimum standard but an imperative function of health insurance systems.

Similar to other countries, health policymakers in Germany use different tools for calculating and sharing the costs of health care. Such tools focus on demand-side of health care through introducing cost-sharing tools. In Germany, people pay coinsurance for General Practitioners (GPs) and professional’s visits. Furthermore, the cost of generic drugs is paid by insurance companies; however, patients should pay extra costs associated with the difference between the price of brand-name drugs and generic drugs. An important aspect of social values in the German health system is that if a new drug has a significant therapeutic benefit, it will be prioritized. This behavior obviously
shows the importance of public preferences.

Finally, transparency and participation values in the health system of Germany are relatively neglected as it was also the case in the NHS of UK (22).

**Republic of Korea**

In the Republic of Korea, universal health coverage was achieved in 1989 (23). Consequently, accessibility to health care increased significantly; however, this achievement was obtained in a high cost for the health system. To reduce the burden of costs, the Korean government introduced a positive listing system (a system that determines the drugs that are required to be covered by National Health Insurance) for new drugs to assess the applications to register in National Health Insurance reimbursement list in 2006. After applying the positive listing system, cost-effectiveness criterion was introduced for the first time into the health system.

Now, 96.7% of population is covered by National Health Insurance and the remaining population is covered by a medical aid plan that is funded by the central and local government budgets. Moreover, other plans are developed for specific diseases such as cancer and public workers.

Various bodies participate in decision making for health technologies including the National Evidence-based Healthcare Collaborating Agency, Korean Food and Drug Administration (KFDA), Committee for New Health Technology Assessment, Health Insurance Review and Assessment Services, National Health Insurance Corporation, and the Ministry of Health and Welfare. These different bodies have various tasks; for instance, to approve a new food, KFDA determines the efficacy and safety and National Health Insurance Corporation negotiates with manufacturer about the price.

**Process and Content values**

There is a transparency gap between the industry and health bodies. Sometimes, the industry side claims that rationales for decisions are unclear and ambiguous. The groups of professional societies and also representatives of labor union participate in the decisions; however, public are not directly involved in the decisions.

It seems that the accountability of the mentioned committee members is low and they do not explain their decisions.

Among content values, the value of freedom of choice is considered more than others. In fact, existence of a strong private sector for healthcare results in more autonomy for the public. Committees tend to focus on clinical effectiveness along with a relative consideration of economic criteria such as cost-effectiveness and financial effects (23).

**China**

Healthcare reforms in China aim to achieve a universal coverage for essential health services. A wide range of reform programs were implemented in China in 2009. Reforms injected $125 billion into the country's health care system. The rise of spending makes it necessary to set priorities based on appropriate models and methods. However, different provinces have different strategies for priority setting.

Three main resource distribution models include: 1) social pooling to provide limited reimbursement for the inpatient services and catastrophic diseases, 2) the “plate model” with individual household account and a pooling account, and 3) a pooling account for both outpatient and hospitalization procedures.

**Process and content values**

Governmental bodies make decisions about drug formularies and clinical services lists. Various organizations and ministries participate in the process of decision making, such as the Ministry of Health, Ministry of Finance, Ministry of Human Resources and Social Security, National Development and Reform Commission in charge of pricing, Ministry of Health, and State Food and Drug Administration.
However, the social insurance system has a partial transparency and agreement on basic healthcare package. There is no clear guideline for comprehensive delivery of the essential health care services. Physicians have a key role in defining the clinical effectiveness criteria. Moreover, cost-effectiveness of interventions is not developed based on a scientific evidence base. Accordingly; inefficiency and overutilization of health resources increase financial burdens on government, providers, and population.

Since the introduction of insurance reforms in China, debates run on what services and treatment should be covered by the social health insurance program. The difficulty in the definition of a clear function and scope for social health insurance illustrates inherent inconsistencies in the transition of China from a commercial to a social health insurance system. The social insurance system in principle has both social and political objectives. However, these have not been explicitly laid out in terms of process or objective. If the target is to promote population health and reduce inequalities, it should be designed to provide a coverage for most common diseases or to ensure a basic minimum coverage for the purposes of equity (24).

**Australia**

Australia has established the process of priority setting particularly in Health Technology Assessment (HTA) decisions. The Pharmaceutical Benefits Advisory Committee (PBAC) was established in 1954 to make recommendations to the Minister for Health and Ageing (now the Minister for Health) on which pharmaceuticals should be subsidized under the Pharmaceutical Benefits Scheme (PBS).

**Process values**

Non-pharmaceutical technologies are assessed by a range of committees, most notably the National Health Technology Advisory Panel, which was established in 1982, and later subsumed by the Australian Health Technology Advisory Committee (in1990) and then by the Medical Services Advisory Committee (MSAC) since 1998. In 2008, the Prime Minister and the Minister for Health and Ageing established a National Health and Hospitals Reform Commission; their remit was to develop a long term health reform plan.

Stakeholders, advocacy groups, and health professionals associations are invited for commenting in all stages of PBAC and MSAC decisions. However, HTA experts have no standard method to exploring the public view.

The PBAC, MSAC, and Minister of health are accountable bodies in front of various groups including patients, public, health professionals, and the pharmaceutical industries. They are also accountable for the value judgments that are made in a decision making process. They provide necessary information for making decisions and also explain the logic of the decisions.

**Content values**

The PBAC in Australia was the first HTA entity to consider the evidence of cost-effectiveness in its recommendations since this became a mandatory requirement in1993. The cost-effectiveness criteria is important in health decisions but there is no explicit threshold for it. Clinical effectiveness is assessed according to PBAC and MSAC Guidelines. When there is uncertainty in the clinical importance of a health technology, the MSAC can recommend to extra assessment of technology through gathering the new information. PBAC and MSAC make decisions in terms of the importance of social values like equity, rule of rescue, and affordability in absence of PBS/MBS subsidy. However, it is unclear how they recognize and use these values.

Australia has a universal health care system, but it does not mean that all services are free of charge. People must pay out-of-pocket for some services such as health technologies, yet people with severe diseases are supported by a family based safety net which pays treatment costs (25).
Thailand
The universal health coverage of Thailand is known as a successful tax-based health scheme among developing countries. This coverage plan was established in 2002 for completing two existing health programs including the Medical Benefit Scheme for Government Workers and the Social Security Scheme for formal sector private employees. Universal health coverage contains promotion of health, prevention of diseases, and rehabilitation services. The process of decision making for health technology includes four steps. The first step encompasses the selection of health interventions for assessment. In this phase, a group of different individual and entities such as policy makers, health specialists, scholars, patient groups, industries and civil organizations choose the topics for making decision about their prioritization. The second step includes prioritization of the selected subjects in which a group of people and organizations mentioned make decisions about prioritization of topics. In the third step, a group of researchers from Health Intervention and Technology Assessment Program (HITAP) and International Health Policy Program (IHPP) and also some skilled experts assess the proposed topics. Finally, in the fourth step, the subcommittee of National List of Essential Medicines appraises the decisions.

Process and content values
Transparency, participation, and social accountability are somehow considered in the decisions. For example, stakeholders participate in universal coverage decisions and follow their interests in these decisions. Moreover, the logic of decisions are explained, nevertheless, because of lacking technology appraisal guidelines, the transparency of decision making process is not completely clear. Interestingly, the values of cost-effectiveness, equity, and social judgments are considered but not completely. The value of equity is highly important and various methods are adopted to provide affordable services especially for poor people (26).

Iran
The health system of Iran is a relatively centralized system in which the Ministry of Health and Medical Education (MOHME) has a core responsibility for providing health services.

Process values
MOHME is the main body for health priority setting decisions. Most decisions on resource allocation are made by managers but based on policies which regulate decision making authorities. However, parliament members, representatives of some medical professional unions, City Council members, and sometimes charities participate as public representatives in prioritizing health priority setting. The direct involvement of the public is limited and decisions are made based on the experiences and policymakers' judgments. Similarly, accountability and transparency are rarely addressed in decision making. Healthcare providers and even health policy makers are only responsible to Supreme Audit Court and the Inspection Organization. Healthcare providers often do not reveal the organizations and decision makers who made some special decisions about priority setting.

Content values
The evidence of clinical effectiveness from other countries are used as a basis for decision making. Yet, there is a limited technical capability to define the clinical effectiveness of health technologies. Major efforts are made to expand the equity in the country health system. For instance, increasing the number of health houses in villages and health centers in cities improved access to a wide range of services. Furthermore, covering the poor and vulnerable people through national health insurance plans illustrates hard works done to improve the equity. Freedom of choice is an important social value in the Iranian health system.
There are two diverse approaches to the freedom of choice. In other words, people have limited choices on preventive services in health care networks but enough choices on medical services in the public and private sectors. Content values are considered more often than process values. Equity is almost considered both in the national documents and real decisions. Different programs are implemented to provide affordable services. Charity services, social insurance schemes for rural and poor populations, and Health System Evolution Plan are means to improve equity in the country's health system. Various types of health insurance schemes for poor and vulnerable populations, public tax, and targeted subsidies in the health sector indicate the importance of solidarity and equity.

The Health System Evolution Plan also reduced the coinsurance rate for inpatient and outpatient care in public sector. The participation of charities and NGOs in financing healthcare services is a feature of solidarity (19).

**Discussion**

Health systems take social values into account in priority setting in different ways and based on the social, technical, and political contexts of the country. In countries such as UK (21), Germany (22), and Australia (25), and to some extents in Thailand (26), a wide range of social values are considered in health priority decisions. Entities, institutions, and committees play a key role to apply values in decisions in these countries. They have been applying social values in a systematic way from several decades ago. It seems that specialized bodies for developing and evaluating the health priority decisions are key in making rationale health priorities. Republic of Korea (23) has agencies and committees for assessment and making the decisions. However, these entities seem to be poorly coordinated. However, Iran and chinan (24) have no suitable bodies for the assessment of health priority decisions leading to a minor role of social values in defining health priorities. Strikingly, process values in health priorities of these countries are reflected less than content values.

UK involves different groups of stakeholders as well as public in decision making processes more than other countries. This results in decisions that embrace a wide set of values and public preferences. The direct participation of individuals in health priority decisions is modest; however, various stakeholders and professional groups on behalf of individuals participate in the process of decision making. Iran (19), China, and Korea have a minimum public participation. The lack of clear list of social values and guidelines is one reason for a low involvement of various groups in making healthcare decisions. Similarly, the transparency of decisions and accountability of decision makers in front of people is low. Managers and experts that made priority decisions give little attention to public views and only in some special cases explain their decisions. For example, MOHME as the main body of health priority decisions in the Iran, only explains the logic of its decision to Supreme Audit Court and the Inspection Organization. Among content values, equity is the most important value. Almost all included countries in the present study pay special attention to equity. Although the level of equity and the way to provide equitable access to health services vary between the countries, the importance of equity is acknowledged by all. The main goal of health systems in the world is delivering the services with a minimum cost for the whole population. Hence, NHS and Universal Health Coverage are the most significant policies for having an equitable health system in the studied countries.

Our findings indicate that these countries have more commitment to content social values than to process values. However, they apply content values at different levels and by diverse means.
Equity, freedom of choice, and solidarity are the most important social values in Iran. Equity is an imperative value in China. Freedom of choice or autonomy has been considered more than other social values in the Republic of Korea. Although advisory bodies and committees are established to assess health technologies, evidences are insufficient and decision makers tend to make decisions based on subjective criteria in these countries (Iran, China, and Republic of Korea). Other countries, including UK, Germany, and Australia, and to some extent Thailand, consider almost all content values in their decisions. It is possible that the existence of developed and responsible bodies affects the application of the values in the decisions. The commitment of HTA bodies to examine and assess the health technologies improves the quality of decisions. The findings of the current study showed that Iran, China, and Republic of Korea face challenges in developing and also implementing the appropriate appraisals. The main reason of imbalance between needs and services is the lack of strong appraisal system. Such system can facilitate the process of health decisions and delivered services, and report the deficits.

We can divide these countries into two groups based on their commitment to the social values. The first group includes UK, Germany, Australia, and Thailand and the second group includes Korea, china, and Iran. Most of social values are applied in the first group but only some of them in the second group.

With regard to universal coverage, if UK, Germany, and Australia cannot be imitated, lessons can be learned from Thailand on how to expand coverage. It took developed countries ages to learn how to organize health systems. Therefore, achieving similar successes in service coverage or priority setting is feasible even if time-consuming and costly. Our study had some limitations. First, although reviews are the common approach to reach the huge body of information, the present study does not provide a complete picture of knowledge about details of values applied in the health system of countries. Second, developing countries often do not present their studies in the global level, so it is possible that experiences of these countries be missed. Third, the limited number of studies may have limited the generalizability of our findings.

It is difficult to examine how exactly health priority setting decisions are influenced by social values in health systems. However, a comparative picture of values and their relative importance can contribute to understand status quo and under-represented values.

Conflict of interest
Authors declare no conflict of interests.

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