National Health Insurance: implications from a measurement perspective

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Abstract

The South African Department of Health (DoH) has reached the pilot stage of the proposed National Health Insurance (NHI) program. The NHI has been justified on the basis of healthcare as a basic human right, rather than on the basis of economic efficiency or gains. However, the NHI to date includes no explicit consideration of the measurement or quantification of health outcomes, both of which are essential as part of monitoring and evaluating the system as emphasised by the DoH. Measurement becomes especially vital in an environment of scarce resources, where trade-offs across patients and treatments will unavoidably occur, in order to justify objectively the decisions to favour one patient or treatment over another. The Quality-Adjusted Life Year (QALY) appears to be an obvious candidate as an individual health metric; it is the most widely used measure of health-related quality of life and is used in other national health programs such as the United Kingdom's National Health Service. Yet analysis of the QALY raises further questions regarding the extent to which individual preferences are valued within the larger welfare framework of public policy in South Africa. The QALY combines quantitative and qualitative aspects of health for the individual, diverging from the idea that health care is an objectively quantifiable good that should be distributed identically across individuals. The latter idea poses a dilemma with respect to healthcare allocation, as there is no indication of how to choose between individuals in case of insufficient resources, where treatment for all patients is not possible. An accurate and theoretically validated measurement tool such as the QALY can assist in clarifying this rule. This paper is an extension of my LSE Masters thesis and is not affiliated with the South African Reserve Bank.

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Introduction

The National Health Insurance (NHI) policy initiative, announced in 2009, represents an ambitious national health coverage program aimed at standardising and improving the quality of and access to healthcare for all South Africans. The initiative is justified by an underlying framework of human rights, although efficiency is a (secondary) consideration (Department of Health (DoH), 2011).

The NHI provides a useful basis from which to discuss certain measurement issues common to public policy in South Africa. Measurement should be as accurate as possible, given practical constraints. When considering intangible, multidimensional qualitative ideas, the fundamental problem of measurement becomes more relevant. The problem is that researchers do not have independent access to the concept that they wish to measure, e.g. when measuring well-being through preferences, researchers do not know the true value of well-being and so cannot determine their measure's accuracy (Reiss, 2008). Secondly, measurement should be context-specific, i.e. best practice measurement concepts should be adapted to local conditions in order to improve their accuracy where necessary.

The two statements above suggest that there is a need for those involved in policymaking and data analysis to interrogate the measurement concept that they adopt. We need to deconstruct and consider the concept at multiple levels, before pragmatic ("how to") considerations become important.

The Quality-Adjusted Life Year (QALY) concept, as a health-related quality of life measure, is one potential measurement tool for the NHI policy. Although the QALY is widely used and is an analytically advanced, useful measure in many respects, it remains imperfect. However, addressing some of these flaws by adjusting the QALY concept to be more context-appropriate for South Africa may in fact improve the internal consistency of the concept itself. The QALY concept within an NHI policy framework may then illustrate an opportunity for South African-specific work to enhance existing global work.

In an environment of limited healthcare and public funding resources, trade-offs will inevitably occur. In these cases, it is important that i) there is some method of measuring health outcomes for the various patients or health interventions that facilitates comparison across the choices and ii) there is some (social) consensus on which patient or intervention will be favoured if distribution is

not possible across all. In essence, this implies a decision rule for healthcare allocation to be applied on the basis of data.

More pragmatically, measurement of health outcomes within the NHI framework will be difficult and uncertain. It is unclear how the QALY concept would be practically implemented in South Africa if adopted by policymakers and practitioners. This paper concludes with some ideas, but does not offer a single satisfactory solution. Rather, the intention is to increase focus on and understanding of the measurement concept, particularly when measuring non-quantifiable yet important objectives such as quality of life.

This paper proceeds as follows: the first section introduces and defines the QALY concept within the NHI framework, before discussing some problems with the QALY concept as currently practised. The second section introduces a communitarian framework that may offer some refinements to the QALY concept. Finally there is a general discussion before the paper concludes with policy implications.

The QALY Concept

The QALY concept represents a health indicator for individual well-being. It was developed to combine the quantitative (medical efficiency) and qualitative (individual subjective valuation) effects of a specific health intervention, so that health improvements could be assessed on multiple dimensions (Kind *et al*, 2009). It is the most widely used quality of life measure for health.

Various measurement techniques are used for QALY construction, and certain 'best practice' standards have been suggested, although not universally adopted (Neumann *et al*, 1997). Generic[2] QALY construction involves three steps: firstly, individuals are asked for their preferences over various health states. Each health state ranges in desirability from zero (death) to one (perfect health). Secondly, individual preferences are aggregated into a collective preference ordering over generic states. Finally, a health state's rating is multiplied by the amount of time spent therein to calculate the QALYs from the change in health states owing to the intervention (Weinstein *et al*, 2009).

[2] Disease-specific QALYs are also fairly common, in which rated health states relate to a specific disease. I will discuss the generic QALY as this is most relevant in a public policy context (Neumann *et al*, 1997).

The QALY concept is one of an array of tools utilised for public health decisions. Different understandings of what constitutes individual well-being will result in different quality of life measures. However, in constructing the conventional QALY, individual preferences are taken as exclusively constitutive of individual quality of life, implying the preference satisfaction theory of well-being (PST). The PST states that individual well-being is determined by the satisfaction of preferences held by the individual. Various problems have been raised with this theory (Hausman and McPherson, 2006). In a public policy context, where the trade-offs between individuals must be justifiable, the PST's severest problem is the implausibility of interpersonal comparison. I return to this problem below.

The PST falls within the broader ambit of individualistic conceptions of well-being, i.e. theories in which the independent individual solely constitutes her own well-being, although this individualism is usually unmentioned (Jennings, 2007). Other people, no matter how closely related to the individual, have only an indirect influence on the individual's well-being. The individual intrinsically values only herself; all other people and social structures are instrumentally valued in relation to her.

The QALY concept and NHI

The National Health Insurance (NHI) policy initiative was announced by the (President) in his State of the Nation 2009, although aspects of the policy had been previously suggested or discussed. NHI is underpinned by a human rights framework justifying equal access to and standards of healthcare for all South Africans regardless of ability to pay (DoH, 2011). This framework implies that healthcare access and distribution is allocated on an individualistic egalitarian basis rather than any social function, i.e. any social benefits of the NHI are positive externalities[3]. It also implies that the NHI is justified independently of its efficiency. Nonetheless, the Department has emphasised that efficiency and sustainability are all important in the implementation and evaluation of the policy (DoH, 2011).

As yet the NHI literature (from the Department of Health) does not contain any measurement targets or tools for gauging health outcomes, although it does contain tools for gauging healthcare

[3] There is clear recognition of the socioeconomic benefits as well as the future efficiency gains from improved healthcare in the policy documents, however access to healthcare based on individual need is the primary objective listed for the NHI policy.

facilities and other relevant structures (Matsatso and Fryatt, 2013). In particular, the NHI framework does not provide decision-making guidelines in the inevitable event of a trade-off. Regardless of the improved quality and access to healthcare for individuals within the NHI framework, it is extremely likely that resource constraints will become binding at some point. Discussion of priority-setting and rationing is increasing not because of an individualistic framework but because resources are scarce and not every health-related need can be met (Daniels and Sabin, 2008). The resulting trade-offs require some non-arbitrary, defensible criteria for assessment of (expected) outcomes, and this is where measurement tools become essential to the public policy process.

The defensible argument will differ depending on the aim of the specific public policy, e.g. within the NHI, although the human rights basis implies equal access to resources, access in the event of resource constraints may be prioritised for low-income groups. Therefore it may be necessary to measure the impact of certain healthcare interventions on various income groups to see which ones benefit low-income groups the most. A successful NHI system may well result in a narrowing of health outcome divergences across income levels[4] and a significant improvement in health outcomes across lower income groups.

Although the NHI is based on an individualistic premise, it is nonetheless a public policy, and social consensus requires some facilitated comparison of health outcomes across competing choices. The QALY is an intuitively appealing measurement concept for this purpose. The instrument is primarily utilised in cost-effectiveness analysis, i.e. in comparing the efficiency of various interventions (QALYs saved per unit of expenditure), with one QALY equivalent to one year in perfect health. The QALY therefore represents a method of comparing quality of life across competing interventions.

However, the implications and underlying meaning of the QALY concept are disputed and there is some confusion regarding its fundamental worth. Some consider this to be its 'democratic' character – allowing ordinary members of society to contribute their views to public health decisions under the assumption that only the individual knows what is good for her (Edgar *et al*, 1998). Others believe it lies in achieving an objective, accurate account of the social value of different health states (Nord *et al*, 2009). And many conflate it with a utilitarian approach to health care allocation, aiming

[4] The NHI does not preclude private funding of healthcare, thus some income-based differences in health outcomes may justifiably remain within the framework.

to maximise health care with distributive neutrality (Anand, 2001). Hereafter these claims will be referred to as the Democratic Claim, the Objective Claim and the Maximisation Claim, respectively.

Throughout this paper I refer to a Democratic Claim version of the QALY concept. There are two problems in operationalizing the concept, which are related to its inherently individualistic paradigm. Briefly, these are: whose preferences should be measured? And how are these coherently aggregated into a social preference ordering?

In general, as a quality of life instrument, the QALY endorses a specific theory of well-being, i.e. the PST, which is essentially individualist. Individualism might be thought to render the concept incompatible with certain ethical frameworks, e.g. the African Ubuntu framework, which is communitarian. Actually, the core Ubuntu principles of solidarity and consensus can be incorporated in the QALY concept to address these deficiencies while respecting the individualism underlying the concept.

These deficiencies reflect the inherent difficulty in balancing individual-centred well-being with the broader, more socially focused aims of public policy. Well-being within this paradigm is purely self-interested, autonomous of relationships and community. Thus individuals may legitimately see themselves in competition with one another for limited health care resources to increase their individual well-being. In contrast, the public policy perspective emphasises social well-being – it considers all individuals within society and attempts to design policies that are individually fair and socially optimal (Daniels and Sabin, 2008). A community-centred well-being would instead link the individual's well-being intrinsically to her engagement with the community and relationships therein. What is good for the individual should link organically to what is good for the community.

This dilemma raises several ethical questions. If social well-being is the focus of public policy, then whose individual well-being comprises social well-being? And further, how is it constituted? Even if it is generally accepted that social well-being is the sum of individual well-being across all individuals, there remain many potential methods for this summation, e.g. more economically productive individuals may be considered of primary importance to social well-being, thus their individual well-being may be more heavily weighted in the sum. This choice is important because it reflects the ethical inclinations of a society.

The QALY concept does not present any obvious answers to these questions. More importantly,

although the concept is frequently utilised, these questions are rarely addressed or discussed. However, despite their apparent incompatibility, a communitarian framework such as the African Ubuntu framework offers possibilities that may be incorporated into the QALY concept to clarify its underlying meaning, much as different ethical theories contribute to "a continuing discussion about how to organise society" (Roberts and Reich, 2002).

The Ubuntu framework is one in which the community and interpersonal relationships carry intrinsic value and are central to the development of the individual (Munyaka and Motlhabi, 2009). The core Ubuntu principles of solidarity and consensus introduce the idea that intensive social interaction over public policies deeply affecting both the individual and the community may enhance rather than diminish individual autonomy and go some way to resolving the problems described above.

Problems with the QALY Concept

As an intangible, multidimensional qualitative idea, the QALY concept suffers particularly from the fundamental problem of measurement. There is no way to guarantee that a QALY is a true measure of quality of life (as with all such measures). The second-best option, then, is to ensure that a QALY is a coherent measure, which is as accurate and appropriate as possible for its purpose.

As aforementioned, the QALY concept was developed and is used for public policy purposes. The QALY concept is thus applied in a social context; however, QALYs are developed in an entirely individualistic way. There is an essential tension embodied in the idea of QALYs, i.e. the tension between how the individual and society value individual health gains. This tension is pronounced because in the individualistic paradigm, individual well-being may be entirely autonomous of society. There is no obvious way to integrate these two views into a coherent policy.

Within the PST, the only way in which the community or interpersonal relationships may affect well-being operates through the desires the individual has regarding interpersonal relationships or the community. Individuals may consider themselves in competition with one another for well-being, because each individual's well-being is entirely independent of the others (McKie *et al*, 1998). Thus, if preferences of different individuals conflict (or if resource constraints ensure that not all preferences can be satisfied), then a trade-off will be necessary – increasing the well-being of some individuals will come at the expense of other individuals' well-being.

There are two key problems reflecting the larger question: what contributes to social well-being (if

social well-being consists in the satisfaction of rational social preferences)? The answer to this question will drive a solution to the two problems: firstly, whose (which individuals') preferences do we measure? And secondly, how do we aggregate these preferences into a collective preference ordering? These problems are central to the coherent construction and interpretation of QALYs.

The first question is widely addressed in QALY-related literature. The various options include (a representative sample of) clinicians, the general population or patients, of which the second option is most commonly advocated (Dolan, 2001). Nord (1999) opposes this view on the grounds that patient-reported preferences (i.e. preferences of individuals personally experiencing the health states in question) are more accurate. The general population claim is supported by the argument that everyone affected by health care decisions should contribute to the social preference profile shaping those decisions (Edgar *et al*, 1998).

Nord (1999) assumes that (accurately measured) QALYs represent an objective quality of life applicable to everyone, implying empathetic preferences (Binmore, 2007). This assumption also drives the argument that elicited preferences used in QALY construction are not individual self-interested preferences but rather individual ethical preferences, as would exist behind a veil of ignorance (i.e. the individual does not know her social position, but knows the social distribution of health). The implication is that such (empathetic) preferences would be identical across individuals, thus they are commensurable and their aggregation is unproblematic (Nord *et al*, 2009). This characterisation assumes that all rational individuals will rank health states in the same way. Yet identical preferences are unlikely to occur naturally, because values differ across individuals. In the end, the same problem pertains with ethical (rational) preferences as with self-interested (actual) preferences, because the ranking of health states will vary depending on which individual's well-being is prioritised according to a value judgment.

Pursuing the objective value of a health state requires sacrificing recognition of a legitimate plurality of health state valuations across individuals. Basic natural differences between individuals exist and these will result in different appropriate health interventions across individuals to maximise the well-being of the specific individual (Nord *et al*, 2009).

The second problem (how to aggregate individual preferences) requires a decision rule on how to relate individual to social well-being. The preference aggregation rule represents the shift from individual to social preferences, and it reveals the chosen structure of social well-being. It is thus a

measure of the substantive power that an individual has within the quality of life assessment process.

This is distinct from the distribution rule, determining allocation of healthcare across the society. Logically, the distribution rule should be compatible with the preference aggregation rule, but the two do not need to be identical, because of the broader considerations (including justice, equity and social stability) included in the former. The NHI implies an egalitarian distribution rule (i.e. equal access to healthcare based on need) without specifying a preference aggregation rule.

Clearly, some rules would exclude certain types of preferences from contributing to a social quality of life measure. If these preferences are correlated with minority or otherwise vulnerable groups then the concept may systematically exclude the views of these groups (Edgar *et al*, 1998). This repugnant conclusion holds because there is no supplementary process for the minorities' preferences to be acknowledged and included – preferences are measured and then aggregated, and the resulting QALYs are the sole indicator of quality of life. Thus the concept purporting to include individuals in the public health decision process systematically excludes dissenting individuals, effectively disenfranchising them (Anand, 2001). For example, Sheila, a transgendered individual, may rate a health state with complete physical health but deep mental anguish over that physical health worse than a health state of severely limited mobility, yet the majority of individuals within society may rate the health states in reverse order. A majoritarian rule would rank the health states such that severely limited mobility is worse (less preferred) to complete physical health with mental anguish. The QALY concept may be accused of moral illegitimacy because of this.

The QALY-related literature demonstrates awareness that QALY construction, and the composition of QALYs, is significantly influenced by the choice of group whose preferences are measured. However, there is little discussion of how the preference aggregation rule impacts QALY construction and shapes the resultant QALYs.

A Communitarian Paradigm: Ubuntu

There is little discussion of a communitarian paradigm for health-related quality of life measures; this despite the wide recognition that an individual's health affects his or her broader community (especially his or her carers) in significant ways (McKie *et al*, 1998). However, even if the QALY concept specifically is incompatible with a communitarian paradigm, this paradigm may assist in clarifying the concept.

I will use the term Ubuntu to refer to the associated African philosophy, which places the community at the centre of life and individual well-being. The specifics may vary but certain traits are shared: an emphasis on the importance of community, interpersonal relationships, and a view of the individual as constructed by the community rather than as an independent, separate organism. The individual is understood and achieves self-realisation through others within this community, which is interdependent not simply because individuals share scarce resources, but because individuals require others for personal growth and development (Ramose, 1999).

Most Western conceptions of personhood emphasise the rational, self-conscious capabilities of the individual, which manifests in an internal manner – personhood is embodied within the mind and is developed privately (Newson, 2007). In contrast, an African (Ubuntu) conception of personhood manifests in an external manner – personhood is necessarily achieved and developed through one's actions towards and relations with others (Metz, 2011a). Further, personhood is construed primarily through relationships themselves, i.e. relationships are intrinsic rather than instrumental to personhood. Solidarity is thus an important principle within the Ubuntu framework because of the importance of cooperation and 'friendly' relationships to all aspects of life (Munyaka and Motlhabi, 2009).

Consensus is another core principle within Ubuntu. In the traditional African indaba (meeting), everyone has a chance to speak – individual preferences are gathered – before discussion ranges until consensus is reached – a deliberative process (Shutte, 2009). Wiredu (1996:186) argues that this approach is more demanding than a majoritarian approach which "deprives the minority of the right to have their will reflected in the given decision". He also points out that a consensus-based approach presupposes the existence of disagreement or diverse opinions on an issue while assuming an underlying common interest. It would seem logical that many public policies presume a common underlying interest, e.g. NHI may presume equal access to adequate healthcare on the basis of need is an underlying social interest.

Metz (2007:338) specified an Ubuntu-compatible moral theory as follows: "an action is right just insofar as it promotes shared identity among people grounded on good-will; an act is wrong to the extent that it fails to do so and tends to encourage the opposites of division and ill-will". This theory embodies the core principles of harmony, solidarity and consensus.

Thus far, there is no articulated theory of well-being linked to Ubuntu. It seems plausible that such a theory would accord value to (at least) the individual, the community, and the interpersonal relationships within the community, e.g. maintenance or protection of the community, promotion of positive (friendly) relationships within the community, and some basic goods for the individual[5]. This suggests that the QALY concept is insufficient according to the Ubuntu moral theory, because only the individual's preferences are accorded value in the QALY concept, as discussed in more detail below.

Ubuntu and the QALY Concept

If a communitarian conception of individual well-being may be accused of unrealistically prioritising the community at the expense of the individual, an individualist conception may be accused of the reverse. Individual preferences are elicited for QALY construction, yet there is no room for discussion, development and preference reconfiguration before the aggregation process. In a communitarian conception this step would be necessary because of the importance of consensus. However, even if consensus was not the aim, deliberation would not be worthless (even on consequentialist grounds), if it shifts participants closer to consensus (List *et al*, 2011). In the communitarian paradigm influencing the individual's preferences through the community (in a fair public deliberative process) enhances individual autonomy because this implies active engagement in relationships (Munyaka and Motlhabi, 2009).

There is nothing in the Ubuntu framework fundamentally precluding individual health-related quality of life measures (if broadened in the respects discussed). Even QALY construction is not inherently incorrect within an Ubuntu moral framework. To see this, the various actions involved in QALY construction can be assessed according to the Ubuntu moral framework. First, individual preferences are elicited. Elicitation of preferences is neither right nor wrong intrinsically, e.g. it may be right if this is the first step in a collective decision process, as long as later steps involve deliberation until consensus is reached. Or it may be wrong if preferences are used without any attempt to reach consensus (assuming non-identical preferences across individuals) to promote individual autonomy at the expense of shared identity.

Second, individual preferences are aggregated into collective preferences. By Ubuntu standards, this

[5] I am indebted to Thad Metz for discussion on this point

action does not seem sensible without some deliberation first; Ubuntu favours consensus over (rigid) respect for autonomous preferences. Thus instead of aggregating preferences by some formula, Ubuntu suggests that everyone's preferences are recognised through deliberation until the differences are resolved. As aforementioned, it is unrealistic if not outright illogical to expect identical preferences over health care after deliberation. More realistically, deliberation may achieve consensus on a set of underlying principles common to individual preferences, and then use those principles to guide health care decisions (Mooney, 2001).

In contrast to an individualistic well-being framework, a communitarian well-being framework would not find inherent tensions between individuals and the community or social well-being. In a consensus-based society what is not good for the community cannot be good for the individual, because individual well-being is closely linked to the well-being of other individuals in the community and to social well-being. In an Ubuntu paradigm the trade-off is between different health profiles for society, which benefit society as a whole in different ways, rather than between different individuals.

This may seem trivial, because there is no doubt that public health policy requires some trade-offs owing to a scarcity of resources. This imparts urgency to the way in which QALYs are constructed (and later, to the health care allocation rule), as these determine which individuals benefit or lose most.

Nonetheless, there is a lack of coherency in the current QALY construction process. The communitarian paradigm highlights the principles of solidarity and consensus, which clarify these problems. Within the individualistic paradigm, ethical (empathetic) preferences are seen as an option heeding individual autonomy while achieving rational agreement across individuals. The empathetic concept is similar to the solidarity principle, as both reflect concern with understanding and caring for others. Yet the individualistic paradigm assumes that this consensus using empathy can be reached by individuals in isolation, each using their rational ability, while the communitarian paradigm encourages interaction between individuals as paramount to the goal of consensus. This isolationist assumption is criticised for ignoring the problem of value judgments that may differ across individuals, but it is also flawed because, depending on the aggregation rule, minority preferences may be entirely ignored within the QALY construction process. The individualistic nature of this process excludes any engagement with alternative, unusual, non-majoritarian preferences

across individuals, and such exclusion is not morally justified by the concept (it is, rather, in contradiction of the Democratic Claim's function as a participatory instrument). A deliberative process, supplementary to individual preference collection, requires individuals to provide reasons for their preferences, as well as establish common norms for decision-making and a forum for open-minded debate (Miller, 1992).

QALYs represent a health-related quality of life measure, correlated to underlying well-being, because of the acknowledged importance of incorporating individual well-being into health care policy. Within an Ubuntu framework, this individual well-being would look different. Individual well-being would still exist (i.e. the individual is not subsumed within the community), but it would be dependent on how the individual's actions affect other people and the community as a whole. This is not to argue that only relationships will impact individual well-being. Instead, satisfaction of basic needs remains an instinctive, justified imperative. Selfishness is justified if it is to satisfy basic needs, but for other reasons, it will result in a significant amount of harm to relationships and the community, and thus the net effect on the selfish individual's well-being will be negative. Overall, this implies a strong ethic of solidarity among individuals within a community.

With this alternative in mind, I turn to the two major conceptual questions initially raised. These were: whose preferences are measured? And how are these preferences aggregated? Within an Ubuntu framework, every voice within the community must be heard, implying that everyone's preferences should be measured, i.e. a representative sample of the general population. This implies broad access to preference measurement procedures and openness to discussion and revision of those procedures. There is a great deal of focus on transparency in health care allocation decisions, e.g. rationing (Mullen and Spurgeon, 2000). However, there is less focus on the design and construction of tools essential to those decisions, such as QALYs, possibly because these tools are seen as in the domain of (i.e. comprehensible by) experts only. But if the basis of the QALY concept is that individuals are best placed to know what is good for them, then this discrepancy in focus is illogical – individuals should be able to understand how their preferences have been incorporated into health care decisions.

Finally, there is the question of how to aggregate preferences. Earlier I suggested this requires a socially acceptable ethical decision rule. Within an Ubuntu framework, the most important aspect of any decision is consensus. Again, this appears unrealistic at first glance – individuals within a society may have excellent reasons to support different ethical rules, and may not change their minds after

long discussion. One important transferable component of the Ubuntu approach is the deliberative process, wherein public debate ranges on the issue at hand. No opinion is dismissed without consideration (Wiredu, 1996). It is essential to remember that this deliberation concerns individual health state preferences and not health care allocation rules. The deliberative process would include the subjects of health state preferences and a suitable preference aggregation rule. It may be impossible to reach detailed consensus on either of these subjects, but perhaps some broader principles underlying health state preferences can be determined, or representatives to make these decisions can be chosen. Mooney (2001) has suggested the need for a health constitution including such principles, as formulated within communities. He emphasises the opportunity to articulate values underlying health care preferences, and to give communities a direct, important role in health care decision-making processes. This suggestion accords with empirical work that shows public support for more participatory debate, transparency and awareness around public health decision-making (Nord, 1999).

The current focus on health care allocation decisions and concern over resources illustrate a strong public interest and (emotional) investment in public health policy. The QALY concept itself represents recognition that the desires of individuals should be included in health care decisions. However, the way in which these desires are taken into account is confused and insufficient. The Ubuntu framework presents alternative solutions compatible with the concept.

Discussion

The QALY concept within an NHI framework raises two essential measurement-related issues. Firstly, as economists, it is important that we consider the content underlying our measures, and consider not simply the feasibility but also the desirability and accuracy of measurement concepts to capture the core of whatever we would like to measure. Secondly, as policymakers, it is important that while we adopt best practice as developed in other countries, we also adapt those practices to suit the specific South African context where necessary.

The deconstruction and interrogation of the QALY above illustrates the first issue in more detail. On the second point: evidence suggests that the burden of disease in South Africa is disproportionately borne by (female/elderly) relatives of the diseased – institutional support structures for the sick are weaker in South Africa than in other, more developed countries. This suggests that the positive externalities of improved healthcare in South Africa may be higher than in other countries for certain groups: e.g. if the NHI policy is designed to more significantly impact the lower-income groups with

poor access to healthcare currently, then there may be higher secondary impact on these groups through positive externalities via effects on carers, than for in countries with stronger institutional support structures. This implies that a health-related measurement concept for South Africa should be quite stringently focused on capturing some of the positive externalities (which would be internalised within a communitarian framework) within an individualistic, preference satisfaction theory of well-being.

As discussed, the QALY concept is premised on the (flawed but widely used) PST of well-being. In a public policy context, it is important that policymakers acknowledge the core of the PST, i.e. the idea that well-being is intrinsically linked to the preferences an individual holds for herself. It is necessary for policymakers to assume some generic preferences (e.g. a preference for improved healthcare, a preference for standardised quality of healthcare) across individuals in order to propose policies on an individualistic basis. However there are limits to these assumptions, and measurement provides an opportunity for policymakers to confirm the broad accuracy and validity of some of the assumptions previously made.

Conclusion

The QALY concept was developed because of a need for simple, broadly applicable health-related quality of life measures, so that individual well-being could be included alongside costs, effectiveness and feasibility considerations in health care decision-making processes. It is the most widely used health-related quality of life measure, as well as the most cited. Several countries have adopted the measure for official policy use, including the UK's National Institute for Health and Clinical Excellence (NICE). The concept has a widely recognised foundation in its theory of well-being as preference satisfaction. It also accords with the enormous public interest in health care decision processes and public input to these decisions.

However, the QALY concept is problematic for various reasons. The key conceptual issue is the rigid separation between individual and social well-being. If health care resources are scarce, and satisfying one individual's preferences comes at the expense of another, then before any allocation decisions are made it is crucial to define exactly whose preferences constitute social well-being. Is every individual equally valued in the social well-being function? And how are these individual preferences coherently aggregated into a collective preference ordering as a prelude to QALY construction?

As an alternative to the individualistic paradigm, the Ubuntu paradigm can address these questions. This African communitarian philosophy emphasises the community and relationships within the community. The individual is fundamentally constructed and understood through the collective, and through his interpersonal relationships. This interdependence is the foundation for the individual's personhood and self-development, and is crucial to his well-being. The Ubuntu framework provides an entirely different perspective for health-related quality of life measures. It is incompatible with the QALY concept – implying inherent limits to the QALY concept's cross-cultural validity – because a theory of individual well-being compatible with Ubuntu would have to be broader than the PST, incorporating the intrinsically valued components of community and interpersonal relationships independently of the individual's desires. However, the Ubuntu framework is not incompatible with all health-related quality of life measures.

There are two relevant principles, both central to decision-making within the Ubuntu framework: solidarity and consensus. Solidarity ensures that individuals are strongly affected by the well-being of others, thus all individuals share in any impact on one individual's well-being. It implies an ethic of care and identification with other individuals, echoing the individualistic paradigm's empathetic preferences, yet solidarity is externalised through actions and engagement rather than internalised through rational thought.

The second principle is consensus, some degree of which is required for a legitimate collective preference ordering in QALY construction. Mooney's suggestion of a health-related constitution, outlining general principles for health care decisions that have been discussed and designed by communities, is one example of incorporating the consensus principle into an individualistic framework (Mooney, 2001). Consensus recognises that health care is an important issue to many people, all of whom want direct input into decisions that will affect them. It recognises that – even though the individual is recognised as an autonomously construed being – the interaction and active engagement of those individuals with one another is compatible with an individualistic paradigm. This interaction between paradigms suggests that the QALY concept's cross-cultural limits are more flexible than they first appear.

The QALY concept provides a useful and necessarily complex first step in considering how to measure health outcomes within the NHI framework. However, the measure requires some adjustment to improve its appropriateness for the South African context. This improvement would ideally combine elements of both the individualistic and the communitarian paradigms to represent

the relevant factors affecting individual health outcomes. Such an adjustment would increase the accuracy of the measure and may usefully supplement use of the QALY in other countries.

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