

Accounting for institutional change in health economic evaluation: A program to tackle HIV/AIDS and gender violence in Southern Africa

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Abstract

There has been growing interest in the application of institutionalist perspectives in the health economics literature. This paper investigates the institutionalist notion of social value and its use in economic evaluation with particular reference to a program to address HIV/AIDS and gender violence in Southern Africa (IMAGE). Institutions are the rules that govern the conduct between individuals, groups and organisations. Their social value stems from their capacity to reduce the uncertainty in human interactions thereby both reducing transaction costs and, importantly, enabling the initiation and sustainability of various activities (instrumental value). Furthermore, institutions tend to be formed around certain ethical positions and as a consequence, act in binding future decision making to these positions (intrinsic value). Incorporating such notions of social value within a conventional welfare-based measure of benefit is problematic as institutional development is not necessarily consistent with individual utility. An institutionalist approach allows for these additional domains to be factored into economic evaluation.

IMAGE is an intervention to reduce gender violence and HIV through microfinance, health education and community development, and involves significant initial investment in institution-building activities, notably through training activities with program staff and community members. The key to employing an institutionalist approach to the evaluation of IMAGE is in understanding the nature of those actions that can be seen as institution-building and determining: (1) the instrumental value of follow-up activities by appropriate amortisation of transaction costs over an horizon that reflects the economies gained from the intervention; and (2) the intrinsic value of any transformation in the community through a cost-consequences approach informed by an *a priori* conceptual model. This case study highlights how health sector interventions can effect institutional changes and how these are captured within a theory-based economic evaluation framework.

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Introduction

The development of health economics as a distinct sub-discipline of economics has been based in large

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measure on a recognition that health is subject to certain institutional characteristics that distinguishes it from other sectors of society (Evans, 1984; Mooney, 1994). Indeed, central to Arrow's (1963) seminal paper on the economics of medical care was the role ascribed to institutions in addressing the inherent uncertainties associated with the market for medical care. Since then, the recognition that health is in many ways different from other sectors of the economy in terms of its institutional makeup has led health economics into areas of enquiry that have resulted in innovative contributions to *inter alia* the study of equity, the study of hospitals, the economics of primary care, agency theory, economic evaluation and health status measurement. Institutions are essentially the 'rules' that govern the conduct of individuals, groups or organisations within a society. They include formal rules such as legislation and regulation and informal rules such as customs and social norms and are generally manifested by repeated patterns of behaviour (more detail provided below). Despite the analytical impetus given to health economics by the unique institutional context in which it operates, there has been little recognition within the literature of the potential contribution provided by institutionalist schools of thought. This is surprising given that these represent a long established branch of economic theory in which institutions form the core unit of analysis.

Institutionalism originally developed in response to the perceived failure of conventional economic approaches to explain aspects of economic development in United States in the 19th century. For instance, institutionalism sought to examine phenomena that were perceived to be beyond the remit of economic science, such as legislation and social norms, in influencing individual and organisational decision making and thus economic activity (Commons, 1931; Veblen, 1924). Although institutionalism has gradually evolved into numerous diverse branches (the most commonly used taxonomy being 'old' and 'new institutionalism'), the feature they have in common is that they seek to explain rather than assume (as exogenous) institutional structures. They thereby provide a potentially more complete account for how such institutions influence economic activity. Health programs, particularly in resource poor settings, often involve what can be seen as 'institution-building' and it is the treatment of this aspect of change through the lens of institutionalism that we seek to explore in this paper. In contrast to conventional approaches which view interventions simply in terms of inputs and outputs (or costs and benefits), the institutionalist approach requires an analysis to be informed by a theory of how an intervention works, firstly, distinguishing, in

particular, those aspects of change that have institution-building elements and secondly, incorporating ethical judgements about what type of change is deemed to be of positive (intrinsic) value.

There is nothing essentially new in terms of the practical tools used in this approach. The treatment of costs draws on methods for the evaluation of primary health care programs in resource constrained settings outlined in Creese & Parker (1994) and the treatment of outcomes involves the use of cost-consequences analysis. The rationale for adopting the institutionalist approach, however, is that it provides a general theoretical base that informs how and when such techniques can be applied and therefore potentially facilitates greater consistency in method across evaluations.

Much of the discussion presented in this paper will be grounded in an example drawn from a program aimed at addressing HIV/AIDS and gender violence in Southern Africa: the Intervention with Microfinance for AIDS & Gender Equity (IMAGE) is a community development and health education intervention built onto a microfinance program targeting poor rural women. The aim of the intervention was to empower such women through enhancing knowledge alongside economic opportunities to generate the skills and resources to challenge community norms around gender violence and HIV (Pronyk, Hargreaves, et al., 2006).

The next section discusses the context in which institutionalist analysis is used, including a definition of the term, 'institutions'. The third section outlines the basis of such an approach to economic evaluation by specifying an institutionalist notion of social value and why such value is not well-captured by the conventional welfare approach to cost-benefit analysis. It then outlines the domains that this introduces into economic evaluation. The fourth section provides examples to illustrate the application to the IMAGE program. Finally, some brief conclusions are made summarising the comparative features of this approach.

Why institutionalist analysis?

The use of institutionalist approaches in the analysis of economic problems within the health sector is based on a recognition that, in understanding the structure, conduct and performance of health care systems, there are limitations to conventional economic methods that render unexplained a certain set of potentially significant variables, namely, its institutions. The objective is to provide a more holistic and potentially complementary approach to the economic evaluation of health and health care by investigating how an understanding

of its institutions can aid in addressing key normative questions.

It is important to recognise, however, that in attempting to extend the scope of analysis in this way, there is a danger in becoming too broad. An institutionalist framework, if it is to be more than descriptive, requires clearly defined parameters. It cannot seek simply to examine in some rather *ad hoc* manner everything that is found to be omitted from usual forms of analysis. In adopting an institutionalist approach, there consequently need to be well-specified conceptual bases on which to work. This means providing a consistent basis for analysis by determining precisely what constitute and conversely, what do not constitute, institutions.

There are numerous definitions of institutions available. One problem in selecting an appropriate one is that its use in common parlance is not always commensurate with the way it is used in the institutionalist literature (and indeed, within this literature, there are also differences across writers — see Nelson & Sampat, 2001). Often the term is employed interchangeably with ‘organisations’ and thus hospitals, government agencies and NGOs, for instance, are sometimes referred to as ‘institutions’. It is therefore worth drawing attention to the way North (1993) distinguishes between institutions and organisations: ‘Institutions are the rules of the game and organisations are the players.’

He further states that institutions:

‘are the humanly devised constraints that structure human interaction. They are composed of formal rules (statute, common law, regulations), informal constraints (convention, norms of behavior and self-imposed rules of behavior); and the enforcement characteristics of both’ (North, 1992).

This is the basis for the definition provided earlier and which will be adopted in this paper. The role of institutions in economic life is their influence on the way in which individuals, groups and organisations interact with one another. For instance, in a business transaction between two parties, there are, at one level, laws and regulations that govern the way in which such transactions are carried out. This usually implies that there are certain requirements as to the level of information each of the parties should supply in the transaction and recourse to legal action should there be a breach of the various agreements made during this process of transacting. Furthermore, the influence of these institutions is also determined by the extent to which they are enforced.

At another level, however, if the two parties concerned are somehow related, for instance, they are close

neighbours, acquaintances or family, then there are likely to be important informal institutional considerations that affect the nature of their transactions such as local customs and trust. In these circumstances, the existing relationships between the two parties and prevailing norms of behaviour that govern their interactions also have an influence over how transactions are carried out. Such informal institutions can often also exist between ostensibly unrelated parties through wider social norms. From an analytical viewpoint, the prospect of future interactions, the way they were carried out in the past and the context of the community in which they take place are all seen to be important.

Within the health sector, constraints on the delivery of effective care and support services for HIV/AIDS and gender violence in countries like South Africa can be framed by institutionalist perspectives. During the process of decentralisation, the makeup of district health systems was extremely fluid, with accountability systems — the rules of the game — changing regularly. Organisational structures, staff establishments, and municipal boundaries shifted rapidly as districts took shape, leading to a serious lack of clarity and major management gaps (Barron & Asia, 2001). Decentralisation placed a heavy burden on what was perhaps the least capacitated level of government in terms of finance and management skills. This was compounded by high staff turnover, unclear accountability and rigid hierarchies, and a lack of rewards for competence and sanction for incompetence. All were felt to be major barriers to managing and delivering a quality service — issues that were significantly amplified in the rural context (Hargreaves & Pronyk, 2003; Health Systems Trust, 2001). Relevant here is that health sector interventions do often impact directly and indirectly upon these institutions and, as a consequence, the capacity of systems to deliver services to communities. This means that such change has value. As discussed in the next section, such value is not captured well in conventional forms of economic evaluation.

Institutions, both formal and informal, may develop because they enable human beings to have recourse to an understood framework in their dealings with others. In effect, ‘(t)hey reduce uncertainty by providing a structure to political, economic and social exchange’ (North, 1990). Different institutional arrangements represent different sets of rules within which such interactions are carried out and some may do so better than others. In other words, one institutional arrangement could facilitate economic transactions in a less costly manner than another. In contrast, the conventional assumption is that optimality is achieved, as in competitive markets,

when marginal rates of substitution are equalised across the economy (Bator, 1958). There tends to be the assumption that shifting resources in response to such signals can be done costlessly (or at least the costs of doing so fall outside the scope of analysis). As a consequence, its normative concerns are restricted solely to the task of ‘getting the prices right’ (North, 1999). In the absence of competitive markets, similar assumptions are also employed in the use of quasi-price signals implicit in cost-effectiveness/benefit ratios in priority setting (Jan, 2003a, 2003b).

Institutionalism therefore highlights the role that institutional arrangements have upon the transaction costs to the various parties engaging in exchange. This means that institutions may be important in enabling the initiation of activities and facilitating their sustainability. In this respect, their role can be seen as instrumental in developing the conditions required for certain activities to thrive by reducing the costs of transacting. Conversely, high transaction costs may prevent or undermine the proper functioning of a program or intervention. Transaction costs therefore constitute a criterion on which institutions can be evaluated: the value of any institutional arrangement being the extent to which it affects the costs of exchange between two parties.

Valuing institutional change

In this section the possibilities for building in institutionalist notions of social value into economic evaluation will be investigated. The starting point for this examination is the widely recognised concern that economic evaluation, particularly cost-effectiveness analysis, focuses too narrowly on health outcomes (Berwick & Weinstein, 1985; Hurley, 1998; Mooney, 1998; Ryan, 1998; Salkeld, 1998). While it is generally acknowledged that cost–benefit analysis is the broadest form of economic evaluation, it is submitted here that it too is ill-equipped to deal with institutional change.

Although recognition of the community aspects of benefit associated with health and social programs is not new and has been recognised elsewhere (e.g. Sefton, Byford, McDaid, Hills, & Knapp, 2002; Shiell & Hawe, 1996), a feature of the institutionalist approach is in its conceptual framework grounded specifically on the notion of institutional change.

The premise for an institutionalist-based principle of social value is simply the notion that institutional change can result from the implementation of a health program. The original principle, formally developed by Tool (Jan, 1998; Tool, 1977, 1979) is known as ‘instrumental valuation’. According to it, social value is

judged in terms of how well an action contributes the ‘re-creation of community’ (as opposed to simply altering the standing of one individual or group vis-à-vis another — this distinction has its roots with classic institutionalists such as Veblen (1924) and more recently, Galbraith (1967)). Such change can be important in the context of health and health care because the implementation of a program may, aside from yielding incremental health gains, have ongoing value to the community. It may also affect the capacity with which a community is able to transform investment in future health and social programs into welfare gains by reducing the costs of carrying out these activities.

Institutional change and cost–benefit analysis

Given that cost–benefit analysis is conventionally viewed as the broadest form of economic evaluation, it is thus relevant to examine why it, nonetheless, may fail to capture institutional variables. In short, why would such changes be manifested in consumer surplus and in turn, willingness to pay valuations?

As indicated above, institutions constitute the rules that operate in society and by their very nature constrain the type of choices available to individuals and groups and affect also how decisions are made. A fundamental quality of institutions is their intransigence to the whims of individual preference, the very basis of ‘value’ within a conventional welfarist perspective on which cost–benefit analysis ultimately is based. The reason why institutions are important from an analytical viewpoint, and indeed it could be argued the rationale for why they develop, is recognition that certain social objectives cannot be fulfilled simply when left to the unfettered interaction of human preferences. A stark example of this is the institution of markets that establish various well-known rules of engagement across self-interested parties — in particular, the defining and enforcement of individual property rights. The rules associated with markets *inter alia* prohibit potentially utility increasing forms of behaviour such as theft and fraud (Calabresi & Bobbitt, 1978). There is recognition here that the social value of establishing and maintaining properly operating markets transcends the individual utility gains from these forms of unfettered preference satisfaction and what could be seen as the value attached by the community to the ‘rule of law’.

This problem could be characterised in the following manner. Assume a two person economy (persons A and B) where X represents a particular institutional form, say, a law prohibiting fraud. $U_A(\cdot)$ and $U_B(\cdot)$ represent the utility functions of persons A and B, respectively. In

this example, abolition of the law on fraud allows A to defraud B and thus redistribution of assets from B to A. On the basis of the cost–benefit criterion, the prohibition of fraud would be lifted if person A's maximum willingness to pay for this change in law was greater than individual B's minimum willingness to have it maintained ($WTP_A [U_A (X)] > WTA_B [U_B (X)]$). Even in instances where a proposed lifting of the law involved a direct zero sum redistribution of assets from person B to person A, such a change could fulfil the cost–benefit criterion dependent on the marginal utility of wealth and of the assets in question of each of the individuals. In effect, this perspective attributes no social value to the law itself. Expanded to a larger economy, the cost–benefit rule values the law simply on the basis of whether the gains to the fraudsters exceed those to the non-fraudsters.

Because society establishes such laws as well as other institutions for constraining preferences in this way, there is an important and more explicit recognition of the inconsistency between certain social goals and individual utility. Economic evaluation, based on a social welfare function that is increasing as a function of individual utilities, is ill-equipped to cater for the case for instance where welfare enhancing institutions confer negative individual utility. Referring back to the example above, it seems self-evident that one would not want to live in a society where fraud is rife. We would expect most individuals, if given the choice *between societies*, to choose a society that does not tolerate fraud to one that does — both because many would find fraud morally repugnant and because wide-scale fraud potentially inhibits welfare enhancing activities such as trade. (As discussed in more detail in the next section, the former can be seen as the *intrinsic value* of the law; the latter its *instrumental value*.) Using preferences, as they are defined in cost–benefit analysis, as the building block for the social valuation of institutions results in a mistreatment of this crucial social dimension and renders it an inappropriate tool for evaluating social institutions. What we are asking of our institutions is generally that they provide a means of constraining or shaping rather than fulfilling our existing preferences and therefore using the metric of individual utility results in a mismatch. Interestingly, such a restriction need not be imposed by the type of social welfare functions originally specified by Bergson (1938). See also Rothenburg (1961).

Furthermore, there is the public good element of institutions which is also likely to introduce, in practice, incentives for free riding when we ask individuals to value such items through the trade-off of personal consumption. This leads to aggregate willingness to pay estimates potentially undervaluing social benefit.

Domains introduced by an institutionalist approach

Fig. 1 illustrates the variables typically captured within economic evaluation and in the shaded boxes, the domains introduced by an institutionalist perspective. A conventional form of economic evaluation will provide an estimate of input costs associated with a program (referred to here as program A), usually some estimate of the resulting health gain (cost-effectiveness and cost-utility analyses) and the resulting cost offsets e.g. reduced hospitalisations from reduced cases of illness. Cost–benefit analysis will also potentially enable an estimate of the non-health related welfare gains e.g. process utility, utility derived from reassurance. The two domains introduced by an institutionalist perspective can be viewed as instrumental and intrinsic value.

Instrumental value represents the way in which an institutional change may encourage the initiation of further activities. In economic terms the most straightforward manner in which to measure this is in terms of transaction costs or transaction cost savings — the value of institutional change being that it reduces transaction costs in future activities. In practice, estimating these savings will require the evaluator to identify those programs that 'piggy-back' onto the current program and the anticipated effect of institutional changes brought about by program A. In Fig. 1, these are represented by transaction cost savings to programs B and C. There are examples of studies that have examined such costs in health care although not specifically in the context of economic evaluation. Ashton, for instance, identified transaction costs associated with health sector reforms in New Zealand around the contracting of health services. Although not explicitly measured, that study identified variables such as staff time in preparing and negotiating contracts, accounting and legal fees and costs associated with the monitoring of contracts (Ashton, 1998; Croxson, 1999). Such costs can be incurred either *ex ante* or *ex post* and need to be distinguished from production costs (Croxson, 1999). Many of the items that are classed as transaction costs might nominally already appear in conventional forms of economic evaluation (e.g. legal fees) and would in practice be relatively insubstantial. A full transaction cost analysis would highlight the potentially more significant cost savings to activities that flow-on from the initial intervention (i.e. those to B and C). In conducting an economic evaluation of A, these savings to B and C are offset against the original costs of A. In practice this is likely to be complicated by multiple links across programs and multiple sources of transaction costs savings. For instance in determining the savings conferred to B

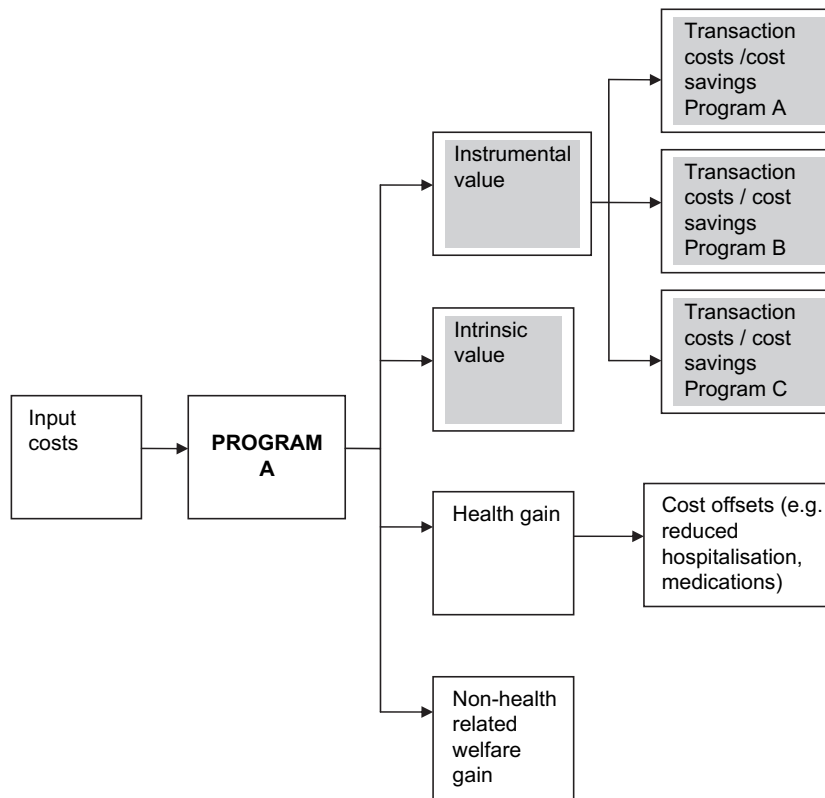


Fig. 1. Additional domains into economic evaluation introduced by an institutionalist approach.

from A for one item — say staff costs, the evaluator needs to estimate savings by comparing the current staff costs of B and with the counterfactual, staff costs without the benefit of economies conferred by A. The difference between these representing the savings to B would then be a figure that is subtracted from the original costs of A. Given the potential for multiple flow-on programs (B, C and possibly others) and multiple dimension of transaction costs (e.g. staff, operations, training) this approach can become unfeasibly complex and inefficient. It requires the costing of multiple programs and the measurement of marginal transaction cost savings rendered to each to enable the evaluator to simply cost one component of A.

A more pragmatic, albeit indirect, approach avoids these complex measurement and attribution issues by accounting for such economies through the amortisation of the initial investment in institution-building. It can be done with the following steps:

1. Identify those activities that can be seen as institution-building with benefit flows beyond the duration of the program e.g. the training of program staff.

2. Identify the resources involved in such activity and estimate their total costs. This aspect is about ‘packaging’ a set of inputs that contribute to the activities defined in Step 1. These are then treated as capital cost items.
3. Apportion such costs between the present program and those of the flow-on activities on the basis of some measure of relative use or over time — akin to how overhead costs might be allocated (Drummond, O’Brien, Stoddart, & Torrance, 1997).
4. Estimate the equivalent annual cost with appropriate discounting.

Although this form of amortisation is routinely done for capital items, the feature of this approach is that it involves the packaging of a set of cost items that contribute to activities defined as institution-building and then the spreading of their costs over a period beyond the study. In effect, this means that an intermediate *output* (e.g. training) is treated as a resource *input* — with its entire cost subject to amortisation as per capital costs. This results in an apparent inconsistency insofar as it subjects those recurrent costs included in training, notably staff, to such amortisation.

Nevertheless, this is an approach that is currently recommended and used for certain cost items — namely initial training and social mobilisation — in the economic evaluation of primary care programs in resource poor settings (Creese & Parker, 1994). Therefore, an institutionalist perspective can be seen to provide a theoretical justification for what is, to a limited extent, existing practice. What this perspective adds, however, is a theoretical underpinning for a more general application of this type of amortisation thereby potentially promoting greater uniformity in practice.

An additional element of institutional change is its ‘intrinsic value’. This refers to how an intervention can institutionalise a prevailing set of values in decision making. This is based on the notion that there are often significant ethical reasons why rules or institutions are created. Institutions do not exist in a moral vacuum; the demarcation of what is deemed right and wrong is likely to reflect a significant element of procedural and distributive justice — which in itself has value and can be seen as ‘intrinsic’. Here, institutions are valued for their role in facilitating the functioning of the community in a manner consistent with certain agreed-upon values (Tool, 1977, 1979).

An example of an evaluation where this was relevant was an evaluation of a midwifery service targeting Aboriginal women in Sydney. The intervention involved the midwives moving beyond their conventional roles to provide various forms of social support to clients who were socio-economically disadvantaged and often faced social isolation. As part of this, midwives acted as intermediaries by ensuring that clients were accessing the mainstream services to which they were referred. A feature of the program was that it was controlled and run by the community in accordance with prevailing community values around Aboriginal models of self-determination and empowerment. In capturing these dimensions, the study employed qualitative methods to identify and record how clients valued the service and the nature of the links forged as a result between the women, the community controlled organisations and mainstream health and social services. Such findings were set within a cost-consequences analysis where they were presented alongside a suite of other relevant outcomes (Jan et al., 2004).

Cost-consequences analysis is a form of economic evaluation in which costs are presented alongside multiples measures of outcome (Gage, Kaye, Owen, Trend, & Wade, 2006). It is argued that this approach provides decision makers with a more informed basis to resource allocation than cost-effectiveness analysis alone

because it does not impose value judgements in the transformation of potentially complex evidence of effect into a single measure of outcome (Coast, 2004). When used within an institutionalist approach, it allows the evaluator to capture the potentially multiple aspects of intrinsic value and thereby can either complement or act as an alternative to conventional cost-effectiveness analyses. Ideally, such sources of value would be pre-specified in a conceptual model to avoid the usual biases associated with *post hoc* rationalisation and multiple outcomes. As a consequence, there is a significant advantage in conducting such an evaluation prospectively, possibly alongside a trial.

Incorporating these additional domains into economic evaluation is, in most cases, unlikely to detract from the use of existing methodologies. However, no evidence thus far is available of studies that have examined these domains comprehensively within economic evaluation although elements of these have been found in some of the studies highlighted above. The example below indicates how institution-building activities within health programs can be identified allowing both intrinsic and instrumental sources of value to be factored into economic evaluation.

The Intervention with Microfinance for AIDS & Gender Equity (IMAGE)

The IMAGE study in Southern Africa provides a useful example of how this type of change was potentially generated. The intervention was a ‘structural intervention’ — targeting ‘upstream’ determinants of HIV infection, including poverty, gender inequalities and violence (Sumartojo, 2000). IMAGE uses access to microfinance services as a way to meet immediate needs, and to create a space to foster critical awareness around gender and HIV issues through a participatory curriculum of gender and HIV education. Building on the theory that group-based learning can foster solidarity and collective action, the intervention was an attempt to stimulate change both among direct program participants, and through them, in the wider community. The intervention was based on an ‘ecological framework’ in which individuals, households and the community create an enabling environment for action to reduce gender violence and HIV. The framework identifies influences at three levels on behaviour with respect to gender violence and HIV: at the individual level, there is the role of agency; at the household level, power relations, communication and well-being; and at the community level, networks, norms, relationships and responses. A prior statement of such a model is

important in grounding the subsequent analysis of multiple sources of evidence. The following was part of an initial conceptualisation of this model:

In relation to HIV, an ecological framework recognizes that behaviour change is complex and dynamic - and that a woman's ability to make decisions about her reproductive and sexual life is inextricably linked to her ability to make meaningful decisions in other areas of her life. For example, individual agency may in turn be influenced by factors such as power relations within the household, or broader social networks within the community. Similarly, in relation to gender-based violence, individual and household level factors may combine with broader social norms - such as those asserting a man's right to "discipline" his wife - to determine the likelihood of abuse. (RADAR, 2002)

The quantitative results of a 2 to 3-year program evaluation, using a cluster randomised design, highlighted substantial shifts in multiple dimensions of poverty, social capital and empowerment, with reductions in the primary outcome, levels of gender-based violence, by 55% (Pronyk, Hargreaves, et al., 2006). Set alongside the costs of the intervention, an incremental cost-effectiveness ratio of cost per case of gender violence prevented would be the basis of a conventional economic evaluation - either as a standalone result or as an input into an economic model extrapolating to health outcomes such as QALYs, DALYs or life years gained. Such measures, however, give only part of the story.

Instrumental value

Institutional change can facilitate the initiation and sustainability of valuable activities which in turn impacts upon the valuation of costs within an economic evaluation. Instrumental value is about creating a certain 'enabling' environment by shifting the orientation of key actors and thus the course of future events. An institutionalist perspective of such change is that the intervention potentially affects the transaction costs of subsequent activities that may be beyond the particular program under evaluation and therefore some allowance for the conferral of these savings should be factored into the analysis. The measurement of such costs, based on the four steps highlighted above, could be undertaken in relation to the evaluation of IMAGE as follows:

Step 1. One of the features of the intervention was the initial phases of program integration and formative research where workshops and consultative

meetings were held to plan and integrate gender and HIV activities with microfinance. The aim of these training sessions was to raise awareness of the intervention amongst microfinance staff, formulate the most appropriate means of incorporating the gender and HIV/AIDS component into the existing loan meetings and generate support within relevant organisations for the intervention. The packaging of these activities is justified on the basis that they would foreseeably facilitate the scaling up of IMAGE to other sites by ensuring more efficient replication since the same staff would also be involved in this phase.

Step 2. A preliminary estimate is that ZAR 395,000 was spent initially on these training activities over the course of the 3 years of the project (comprising mainly costs of staff, building, travel and materials).

Step 3. Accounting for these economies would entail amortising the costs of these activities over the period of scale-up. Based on expected levels of staff turnover and projected scale-up activities, it is anticipated that the scaling up phase would extend 2 years beyond the trial and therefore increase the period over which such costs are amortised from 3 to 5 years.

Step 4. Given a discount rate of 3%, the resulting equivalent annual cost of this item in the trial was estimated at ZAR 86,000 based on 5-year amortisation as opposed to ZAR 140,000 if amortised over 3 years. The resulting allowance made for transaction cost saving is therefore ZAR 54,000 per year.

Intrinsic value

There were additional aspects of institutional change from IMAGE that can be seen to be of 'intrinsic value' - these pertain to changes in community norms about violence, HIV/AIDS and sexual practices. Such changes embody a set of values that are seen to be positive to these communities. In understanding this, observations about a variety of changes in community, household and individual characteristic can provide supportive evidence of positive intrinsic value:

1. An ecological framework was established *a priori* in which anticipated changes to institutions were identified and then linked to observable changes at individual, household and community levels.

2. The secondary outcomes from the trial could be used to highlight individual efforts alongside community mobilisation resulting in the formation of new partnerships within civil society. This was measured in terms of social group membership and collective action. The findings, based on self-reported measures, indicated positive although not statistically significant differences between the intervention and control communities (Kim et al., 2007; Pronyk, 2006).
3. Other supporting evidence included observed activity in the intervention sites such as the initiation of 40 village workshops, 16 meetings with leaderships structures, five marches, two partnerships with local institutions and the formation of two new village committees (Pronyk, 2006).
4. Finally, the qualitative evidence highlighted the effect in terms of women challenging the acceptability of violence, demanding better treatment from partners, the leaving of abusive relationships, and the raising of public awareness around issues of violence in the community (Kim et al., 2007). In addition, quantitative evidence indicated greater levels of reported communication with household members about sexual matters in the past 12 months (Pronyk, 2006). As indicated, changes in such norms, from an institutionalist viewpoint, form key endpoints. However, the enduring qualities of such changes are more confidently asserted when set against broader changes to community structures identified in the other outcomes above.

Taken in isolation, therefore each of these sources of evidence does not necessary indicate institutional change of intrinsic value. A cost-consequences analysis used effectively for this purpose requires that the observed changes to individual attitudes and behaviour and the creation of community structures to be placed within the context of a pre-specified conceptual framework. This approach therefore involves more than simply the arbitrary listing of outcomes but instead a theory-based analysis built on an understanding of how actions at individual, household and community level potentially contribute to meaningful outcomes (Pawson & Tilley, 1997).

In highlighting intrinsic and instrumental value as two distinct domains for economic evaluation, the approach outlined in this paper establishes a means of capturing the costs and consequences of institutional change.

In terms of the analysis of costs, it is evident from the example of the IMAGE study that certain activities

carried out as part of the intervention could be identified and ‘packaged’ as institution-building. These were identified as activities around the integration of the intervention into the routines of the existing microfinance staff and in the formative research. Such activities were seen to generate economies, in terms of transaction cost savings, not only to the intervention in its trial phase but also significantly, to the subsequent phase of scaling up. The implications for the costing of the intervention was that the upfront costs of these institution-building activities could then be amortised over the combined trial and scale-up phase of 5 years rather than just the 3-year trial phase. The treatment of costs in this manner represents an allowance for these potential savings rather than a direct measurement.

The other aspect to evaluation introduced by an institutionalist perspective is recognition that an intervention changes the attitudes and norms of members of the community in line with certain agreed-upon ethical standards. Transformation of this nature is characterised as intrinsic value and has implications beyond the duration of the trial. In this example, multiple sources of evidence were compiled to highlight how changes were effected in these communities that promote the empowerment of women and the development of progressive attitudes toward gender violence and HIV. A critical aspect of the analysis of these phenomena was that it was grounded in a pre-specified conceptual framework linking inputs, actions and outcomes as well as judgements about the ethical standards used to assess intrinsic value.

Conclusion

Institutional change can be an important and enduring consequence of health sector interventions. Institutions can reduce the uncertainty in the interactions between individuals, groups and organisations. They thereby potentially reduce transaction costs and enable the initiation and sustainability of various activities. They also act to instil certain ethical values into present and future decision making. These mean that they can have social value. Incorporating such notions of social value within a conventional welfare-based measure of benefit is problematical as institutional development is not necessarily consistent with individual utility. The feature of the approach outlined in this paper is that it is theory-based. It requires the evaluator to identify elements of institutional change based on a prior understanding of how the intervention is expected to generate such change and then utilise multiple sources of evidence to factor observed changes in such variables

into economic evaluation. The example provided highlights how an intervention in gender violence and HIV/AIDS in Southern Africa can effect significant institutional change within relevant communities and thereby impact upon a set of flow-on activities. The tools used in the analysis of these variables (amortisation of the costs of institution-building activities, cost-consequences analysis) are to a certain extent currently recommended and used in economic evaluation although there is by no means any consensus about where they stand in relation to conventional practice and nor is there, at present, uniformity in their application. One of the aims of this paper is to provide a general framework providing a rationale for their use and thus enabling a greater consistency in methodology across studies. It is proposed that ultimately institutional considerations, as covered in this paper, are included in the checklist of tasks that guide best practice in economic evaluation.

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