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Issues of Economic Efficiency of Human Service Delivery in Australia

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Since the 1980s, public sector reforms that reflect the desire to improve the efficiency of the human service sector and improve service outcomes have effected a significant change in the delivery of human services in Australia. There is an increasing recognition that market mechanisms should influence both the production and distribution of most services, if not all. Parallel to this move towards dependency on markets, a new wave of human services reforms has emerged in different States and Territories in Australia in the form of contracting, provision through non-government organisations and partnership with local governments. An important part of this reform is the emphasis on efficient resource allocation. This paper briefly describes the resultant models of government investment in human service delivery in Australia, describes methods for economic evaluation appropriate to human services, documents the existing literature on the application of economic evaluation and comments on progress to date in using economic evaluation for resource allocation.

Field of Research: cost-benefit analysis, cost-effectiveness, human services, resource allocation

1. Introduction

Governments and policymakers struggle to appropriately synchronise human services to social, economic and operational changes. Globalisation and technological advancement have placed both producer and distributor under increasing pressure to introduce new models of service delivery to:

- enhance customer choice,
- improve service efficiency and quality, and
- ensure that the government is operating effectively, efficiently and transparently.

With increasing transparency of public investment, governments in Australia have had to justify that they are doing the 'right thing', in the 'right way' and achieving the 'right outcomes'. When delivering human service programs, both governments and non-government organisations (NGOs) are increasingly being required to show that a program does indeed 'work'. Intense competition for limited resources, combined with increased scrutiny

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for the allocation of these resources, has created a need for a better understanding of how costs and benefits are weighed up in service delivery. Resource allocators now have to validate that resources are invested where ‘cost effectiveness’ and ‘return on investment’ are evident.

In an effort to improve delivery mechanisms for human service programs, increasing focus is placed on:

- evaluating existing, emerging and alternative models of human service delivery, their models of resource allocation and comparative cost-effectiveness,
- using appropriate economic evaluation of the programs,
- developing better methodologies to justify the allocation and use of limited resources, and
- public policy implications of the findings.

The term ‘human service’ is variously referred to as ‘public service’, ‘social service’ and ‘community services’ in the literature. In this paper, by human services, we mean goods and services that provide benefit and support to individuals and their communities, including child care and protection, health care, legal aid, housing and other support to address homelessness, respite care, support to people with disabilities and other need-based services.

This paper reviews models of government investment in human service delivery in Australia and their efficiency in resource allocation from the perspective of society. In the following sections, the paper:

- describes the models of human service provision in Australia,
- reviews economic efficiency criteria for public investment, and
- provides evidence of different models of service provision and their economic efficiency.

2. Models of Human Service Delivery in Australia

In Australia, as in many other Western countries over the past two decades, the public sector has been subject to a reform agenda which is often characterised by ‘leaner, meaner’ resourcing. As Shergold (1996) stated: “[public sector] has undergone significant reforms to meet the increasing expectations that the government, the Parliament, and the Australian community have of its performance” (P: 1). Although macroeconomic reform in Australia, characterised by improved monetary and fiscal policy, financial deregulation, tariff reform, trade liberalisation, labour market reform and so on, was initiated in the late 1980s; by the early 1990s, the focus had shifted to the reform of microeconomic policies with the philosophy that “government should step back from direct management of the economy” (James, 2003: 96), and let market forces work.

A new wave of human services reforms has emerged in different States and Territories in Australia in the form of contracting, provision through NGOs and partnerships with local governments. An important part of this reform is the emphasis on efficient resource allocation. Governments are being delayered, devolved and downsized everywhere. Indeed, many goods and services previously provided directly by the government are now produced and delivered by NGOs and other channels of delivery, with input from government in the form of funding assistance, legislative and policy direction, and program review.

In Australia, there are at least six channels of service delivery; these being:

- public sector or in-house provision,
- private sector provision,
- public-private partnership and other mixed investment models,
- for-profit organisations,
- not-for-profit organisations, and
- joint arrangements between different tiers of government, particularly through local governments.

A common rationale for a move away from direct service delivery by the public sector to privatisation or contracting out, is that it will “increase the application of market forces and other forms of competition to service delivery” (Tang, 1997: 98). This economic rationalist approach is intended to promote greater efficiency, enhance economic performance and increase incomes, employment and living standards (Productivity Commission, 1999). The role of the public sector in direct human service delivery has been downsized, and increasingly privatised (Lyons, 1994; Tang, 1997). NGOs are increasingly taking on the role of human service provider. Drivers for the reform of human services delivery include:

- commitment by the government to introduce a ‘competitive market’,
- preference for smaller government, and
- reduction of public expenditure in human services (James, 2003; Raper, 2000).

The Australian Government’s Intergenerational Report 2007 considers the sustainability of government policies over the next four decades (Commonwealth of Australia, 2007). It identifies that the aging of the population will lead to significant government expenditures in a number of human services, particularly health, disability, aged pensions and aged care under current models of service delivery. In the light of such a forecast, it is timely to re-examine the models of public investment in human services in Australia, for alternative uses of resources or alternative distribution of services, and possible economic efficiencies.

3. Economic Evaluation of Human Services

3.1 Allocative Efficiency

Increased pressure to scrutinise the allocation of resources requires the measurement of their ‘allocative efficiency’. Allocative efficiency is a benchmarking construct where the optimal allocation of resources is one where an equality of access is achieved, and no one can be made better off without making someone else worse off. Allocative efficiency involves the related issues of fairness and equity, but “can only highlight the differences in both the volume/mix of services and the cost which may occur under different distributional conditions” (Deeble, 2000:2). It aims to achieve the greatest benefit per unit of cost.

Allocative judgements are usually made from within a service delivery system where users are usually well informed about community values and individual preferences. Allocative efficiency enables competing programs to be assessed and permits executive judgements regarding the extent to which they meet objectives. It enables resource users to choose among different alternatives to produce maximum possible outputs. In the area of human service delivery, evaluation of the allocative efficiency of programs and activities is particularly challenging because human services address a wide diversity of problems with many possible solutions.

3.2 Economic Evaluation

Economic evaluation is the systematic appraisal normally undertaken to determine the relative economic efficiency of service programs and “to help contain costs and improve efficiency in an evidence-based decision-making environment” (Kanavos *et al.,* 2000:1179). It is used to define the relevant criteria for choosing between alternatives, and to simplify conceptually the potentially many relevant criteria. Economic evaluation can be used as a practical aid to decision making and help ensure that resources are allocated in the most efficient and ‘value enhancing way.’

Economic evaluation estimates net gain (benefit) from society’s perspective, and thus provides important information about the efficient allocation of resources. Economic evaluation is of limited usefulness where there is either a lack of or poor quality data, and where decisions have to be made quickly and take into account factors other than efficiency (Ross, 1995). An economic evaluation assesses whether or not the additional benefits generated by the new intervention are greater than the loss in benefits from the reduction in other programmes (Palmer *et al*., 1999), i.e., is the reallocation efficient?

There are four key techniques for economic evaluation that are widely used in public sector resource allocation, being:

- Cost-benefit analysis (CBA),
- Cost-effectiveness analysis (CEA) which includes cost comparison,
- Cost-minimisation analysis (CMA), and
- Cost-utility analysis (CUA).

In the context of social service and human service delivery, preferred techniques for resource allocation are cost-benefit analysis (CBA) and cost-effectiveness analysis (CEA) (Commonwealth of Australia, 2006). Before conducting an economic analysis of a human service provision, a decision regarding the most appropriate methodology to be used must be made. A number of questions need to be considered, including:

- over what period of time is the analysis of the service and its benefits and costs to occur?
- should non-market goods and services (e.g. benefits of child immunisation) be valued, and if so, how? (CEA does not require measuring outcomes in dollar terms.)
- should intangible costs of an intervention be included, and if so, how?
- should market prices be adjusted to ensure that these reflect true opportunity cost of resources, and if so, how?
- should counter-factual effects (i.e., effects from no-action or activities already in place) be taken into account, and if so, how?
- how to adjust the discounting procedure for risk and uncertainties associated with the implementation of a project or program?

3.3 Cost-benefit Analysis

CBA compares the opportunity cost of a program to its economic benefit, measured in monetary terms such as dollars. Results are expressed as a benefit-cost ratio or net benefit estimate (benefit minus cost), and an intervention is usually cost beneficial if the benefit-cost ratio exceeds unity or if the net benefit estimate is positive. A systematic analysis of costs and benefits is undertaken to decide if the investment should be made or if continued support is justified. CBA places both costs and benefits into standard units (usually dollars) so that they can be compared directly. The challenge when conducting a CBA is to identify, quantify and measure the benefits and costs of a program intervention.

3.4 Cost-effectiveness Analysis

When it is difficult to assign dollar values to the benefits/outcomes, CEA is used. For example, there may be more than two options of dealing with substance use in a particular community that will result in similar estimated reductions in death and disability. In such a case, it is appropriate to choose between the options on the basis of minimum cost only. The aim of a CEA is to find least-cost options with approximately similar outcomes. A CEA is appropriate when the benefits/outcomes from competing alternatives are judged to be identical or where a given level of benefits must be provided as the result of a specific new legislative or policy decision or program intervention.

The procedure for conducting a CEA is similar to that of a CBA - except CEA does not require estimating benefits/outcomes of an intervention as these are physically quantified. The cost-effectiveness of an intervention is typically measured in costs per unit of outcome, such as cost per case of child maltreatment prevented or cost per life year saved, compared to some alternative intervention. As Knapp and Lowin (1998) stated: “If two [child] care options are of equal cost, which option provides the greater benefits from a given budget? Or if two options have been found to be equally beneficial in terms of child or population impact, which is less costly? In the strict sense, a cost-effectiveness analysis looks at a single effectiveness dimension and constructs a cost-effectiveness ratio” (P: 175).

3.5 Measuring Efficiencies of Human Service Delivery: CEA or CBA?

Both the techniques of CBA and CEA are useful to provide a format for analysis that can lead to better decision making. As Freeman (1993) stated, in relation to the application of CBA, “… it should be considered as a framework and a set of procedures to help organize available information. Viewed in this light, CBA does not dictate choices; nor does it replace the ultimate authority and responsibility of decision makers. It is simply a tool for organizing and expressing certain kinds of information on the range of alternative courses of action” (P: 9-10). Neither CBA nor CEA is a panacea for efficient resource allocation. Both require judgements of other non-economic criteria, such as social, environmental, ethical, distributional and political issues that should be brought to the attention of the decision makers.

4. Evidence of Economic Evaluation of Human Services

The use of economic evaluation in decision making appears to have increased over the past few years. In Australia, both CBA and CEA are now routinely used in evaluations of a broad range of public policies, including a variety of human service related projects and programs. More recently, some states are exploring new and alternative service delivery approaches and funding sources for human/community service delivery. In South Australia, the Department for Families and Communities (DFC) has undertaken a new approach of delivering services through a mix of non-profit, non-government, for-profit private and government providers, based more on cooperation and collaboration. To make this new paradigm effective, the DFC is applying ‘the value for money check’ in community services funding in order to achieve “the best return and performance for the funds being allocated” (DFC, 2006: 17).

In Queensland, efforts have been made to estimate intangible or ‘non-quantifiable’ outcomes in monetary terms and to integrate these into resource allocation decision making. The Department of Communities is conducting a CBA within the juvenile justice system as a part of a micro-simulation for assessing the short and long term effects of policies, through incorporating the cost of court appearances and supervision of detention and community-based orders (Livingston *et al.,* 2006). Ironmonger (2006) estimated the economic value of volunteering in Queensland, both using market prices and assigning dollar values on unpaid non-market activities. Manning *et al.* (2006) used a cost-comparison analysis (CEA) to estimate the cost savings achieved through the implementation of a community based early intervention program. In this study, child-focused (i.e. school-based) and family-focused (i.e. community-based) preventative interventions were implemented in socio-economically disadvantaged urban communities in Queensland. The study revealed that preventative interventions early in the developmental pathway compared to later in the pathway generated significant cost savings. For instance, diverting one child from a reading recovery (remedial) program as a result of a preventative intervention was estimated to be $20,672 in future cost saving.

4.1 Comments on Economic Evaluations in Human Services

The variety of service delivery models studied in this paper suggests a number of alternative ways of delivering services to communities that are both cost-effective and more equitable. However, supportable 'wholesale' recommendations about specific human services that can be delivered cost-effectively through a particular investment mechanism cannot yet be made. For instance, although evidence exists of significant benefits of outsourcing or contracting out services:

- Zellman and Gates (2002) found no evidence that outsourcing child care would save money. They found overall cost of providing child care for military families was similar in centres run by both the US Department of Defense and private contractors.
- Lipsky and Smith (1990) indicated that the improvement in service quality and increased cost savings were unlikely to be achieved simultaneously in contracting for human services.
- Unit cost data on social care services provided by local authority, voluntary sector and private sector do not help much for a fair comparison between different types of provider (PSSRU, 2006).
- An Australia study conducted by Boardman and Hewitt (2004) found poor performance in terms of cost, quality and externalities of contracting out of the orderly services at Sir Charles Gairdner Hospital in Western Australia. They also noted significant cost saving and improvement of quality on the subsequent return of the service to in-house provision.

The review of economic efficiency of different models of human service provision reveals that to date, the application of economic evaluation techniques to resource allocation decisions for human services are extensive, although it is very limited in Australia. Most importantly, its application to resource allocation decisions both in Australia and overseas is confined largely to the health sector (Foster *et al.,* 2003). Nevertheless, their application for comparative studies of alternative service delivery options and their cost-effectiveness is non-existent in the Australian context. House of Representatives (1998) stated that "there were no detailed empirical studies which had specifically looked at the impacts of contracting out of welfare services in Australia" (P: 30).

On the basis of the current evidence on the effectiveness of implementing alternative models in practice, a reliable conclusion regarding the clear merit of one investment model over another for each of the activities across the spectrum of human services can not be drawn. There has been insufficient rigorous testing and evaluation of the implementation of investment models in practice. Furthermore, from an equity and income distribution point of view, some issues need to be considered while judging the appropriateness of economic efficiency criteria to human service delivery, including:

- McDonald (2002) raised the question of applicability of market models such as competitive tendering in rural and remote areas of Australia. These are criticised for their ‘urbo-centric assumptions’ that have limited validity in rural and remote areas. The dispersion of the Australian population makes it difficult to establish services in small communities with a limited market.
- Many human services are provided to people who are poor, and therefore cannot afford to pay a market price (e.g. service for homeless people) and pose a challenge to the viability of a for-profit provision or ‘user-pays full price’ service model.
- Another area of concern in human service provision relates to the equitable distribution of the services (e.g. by region and age, and across ethnic, cultural and faith-based communities). For instance, poverty is comparatively high in remote Indigenous communities with a high concentration of social disadvantage. Market mechanisms may not work to produce and distribute essential services in those areas.
- Many human services are considered to be a human right (e.g. support for people with disabilities) or essential to meet basic living standards (e.g. disaster recovery and crisis accommodation). Therefore these are provided free-of-charge, as a last recourse to communities who had nowhere else to turn. This means that for many of these services, there is no established ‘market’ and without public provision, services would not be provided.
- Public investment is also influenced by social factors. For instance, both public sector agencies and non-government organisations, including charities, religious and not-for-profit entities, have a long and sustained history of involvement in the funding and provision of human services such as disaster relief and support for people with a disability and other disadvantaged groups.

5. Conclusion

The purpose of this paper was to provide a review of the literature on the economic analysis of public investment in human service delivery. The above discussions demonstrate that:

- a range of models in delivering human services is possible and desirable both from society and government perspectives.
- there are associated costs and benefits of each model which would be amenable to economic evaluation.
- given the current state of inadequacy in available studies, particularly in Australia, it is extremely difficult to compare and then weigh up the various competing models and to make prescriptions about the desirability of a particular model.
- it is still safer to assess each model on a case-by-case basis until a rigorous body of evidence is available.

While the reform measures are aimed to increase the efficiency, effectiveness and accountability of government departments, their impact both at macro and micro levels are yet to be fully measured. Also, whilst there is some cost-benefit or cost-effectiveness analysis on a number of programs, comparative analysis of the relative benefits of using alternative approaches to delivering human services is near to non-existent. There is a scarcity of empirical evidence for human services within the Australian public sector. In particular, very little research has been done on measuring the economic efficiencies of various models of service delivery in Australia. Despite considerable methodological and empirical developments in economic evaluation studies of public sector investment, economic techniques have rarely been adapted to studies of human services delivery, particularly in the Australian context. Thus, policymakers and human service professionals could benefit from a clearly articulated economic evaluation of human service provision using different delivery models.

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