Southern Health

Discussion Paper

Disinvestment of technologies and clinical practices in health services: Conceptual and policy perspectives.

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Background

In the context of limited health resources, health organisations must make decisions about the services that are to be funded and those that are not. Health budgets are increasingly under pressure due to the influence of a variety of factors including the funding of new technologies and clinical practices.[1,2] One response to this pressure has been to explore opportunities to release funds by reducing or ceasing the delivery of certain practices or services that provide less favourable health outcomes – a process that has been referred to as 'disinvestment'. [3,4]

The process of disinvestment has been increasingly promoted as a potential source of funding new technologies and clinical practices (TCPs), however it is a relatively underdeveloped area in terms of conceptual and policy development.[4] Our aim was to explore the emerging literature to inform decision making about disinvestment activities, methods and opportunities in a multi-campus health service in Melbourne, Australia.

Method

Search

A search strategy was developed to identify relevant publications including journal articles, technical reports and policy documents.

The search strategy was iterative with new terms added as they were identified. The following search terms were used with truncations appropriate to the databases utilised.

- Medical Subject Headings (MeSH): Health Care Rationing, Resource Allocation, Health Priorities and Health Services Needs and Demand
- Text words: disinvestment, decommissioning, defunding, resource release, allocation, reallocation, hit list, ineffective services, low value services, wish list, exclusions, priority setting, program budget marginal analysis, PBMA, resource scarcity, rationing, invest to save

These terms were used to search medical databases (Ovid Medline, All EBM Reviews, EMBASE, Cochrane Library), the internet (via the Google search engine) and within guideline websites in January 2008.

These methods were supplemented by the follow up of reference lists in key publications and searches for publications by identified authors in the field.

Inclusion criteria

A single reviewer selected publications for inclusion based on the following criteria established a priori: English language publications that addressed the issue of disinvestment from a conceptual (terminology, definitions and operational criteria) or policy perspective and any relevant guidelines, reviews or research studies.

Publications that did not meet the criteria were excluded on the basis of review of title and abstract. When a decision could not be made based on abstract alone, full text was retrieved.

Synthesis

Identified articles which met the inclusion criteria were summarised based on content relevant to the major themes of the review. These were conceptual perspectives (terminology; definitions and operational criteria) and policy perspectives.

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Results

As a result of the broad, comprehensive approach to the literature search over 1000 potentially relevant citations, presentations and other documents were identified. The majority of these did not meet inclusion criteria.

In general, the small number of relevant publications addressed the issue of disinvestment by providing a statement of the policy context, the rationale or need for disinvestment and/or a critique of existing processes. The emergent conceptual and policy perspectives are summarised below.

1. Conceptual perspectives

Terminology

While the term 'disinvestment' is most commonly used in the literature a variety of other terms have also been used such as 'decommissioning', [5] 'removing ineffective services' [6] and 'resource release'. [7,8]

The term disinvestment can have negative connotations. It has been used in health and social policy literature when referring to a process of 'defunding' services, particularly publicly funded services. High profile examples include the reduced funding of publicly funded psychiatric services[9,10] and the reduced public and private investment in the inner city areas of some cities in the USA that have been affected by the loss of manufacturing industries such as Detroit.

Definitions/ operational criteria

While the concept of disinvestment is receiving increasing attention within the health policy literature the meaning of the term has not been clearly defined.

At the most basic level the term disinvestment has been used to refer to a process of ceasing or reducing the provision of specified TCPs. However when defining the types of TCPs that are to be targeted various definitions or criteria have been provided. This may in part reflect differences in the approaches developed within particular health services in response to local needs and constraints. It may also reflect the fact that from a policy perspective narrowly defined criteria are not necessary for designing or implementing a disinvestment initiative. If the aim is to find some TCPs to reduce or cease in order to release resources the criteria may develop as a outcome of the decision making process rather than some prior definition.

The major themes that emerge from the definitions provided in the literature are disinvestment of technologies or clinical practices that are:

- Unsafe or harmful
- Clinically ineffective or of no or low health gain
- Outdated, superseded or obsolete
- Cost ineffective

Unsafe or harmful

While some authors make reference to unsafe or harmful TCPs when describing the concept of disinvestment, the specific meaning is difficult to discern as operational criteria are rarely provided.[3,4,6] In particular it is unclear whether the intention is to include TCPs with serious safety problems in the definition. This is an important issue to consider in relation to development of disinvestment initiatives as it relates to the relevance of existing mechanisms for identifying and responding to emergency safety problems (eg national safety surveillance and vigilance systems). It should be noted that no authors referred to these systems when discussing the issue of disinvestment. It is likely therefore that the intention is to include TCPs with ongoing low-level safety issues rather than instances of emergent public safety crises. A recent survey revealed that policy makers in Australia perceive that a significant proportion of patients continue to receive treatments that are potentially harmful.[11] They also found that respondents could recall numerous examples where disinvestment had occurred based solely on grounds of safety and that these were primarily pharmaceuticals.[11]

Clinically ineffective or of no or low health gain

Some authors have used the term 'clinically ineffective' when describing the TCPs to be targeted for disinvestment. [2,3,4] This refers to a clinical procedure or health technology that results in no significant clinical benefit. The similar term 'low health gain' has also been used in relation to the definition of disinvestment. This refers to a situation in which the TCP contributes relatively little to the overall health outcomes for the population in question.[3,12] These criteria may include procedures that are provided for reasons other than the treatment of a medical condition (eg some cosmetic procedures).

Outdated, superseded or obsolete

Some authors have referred to TCPs that are inferior in comparison to other more recently introduced ones and have

used the terms outdated, superseded or obsolete when describing the TCPs to be targeted for disinvestment.[2,3,6] This usually relates to situations in which a new health technology has been developed and it is considered to be more effective than the existing technology that it replaces. It should be noted however that most national approaches to health technology assessment do not include quantitative rating methods or consideration of cost benefit for priority setting.[1] This raises the question about the operational criteria that would be used to identify an 'obsolete' technology suitable for disinvestment, an issue that has not yet been addressed in the literature.

Cost ineffective

One of the most common definitions identified relates to TCPs that are considered to be cost ineffective.[2,3,4] This involves a consideration of both the effectiveness and cost of a practice or technology and refers to a situation in which TCPs are considered to provide little health gain for their cost when compared to an alternative.

2. Policy Perspectives

In order to develop a clear understanding of the concept of disinvestment that is emerging within the health services literature it is important to consider the policy context. It could be argued that the growing interest in disinvestment derives primarily from the pressures of finding resources to fund TCPs in an environment of resource scarcity. Increasingly it is becoming clear that funding of new and emerging technologies and practices will only continue if resources can be released from existing TCPs.[3] The recent interest in the topic appears to be a response to the perception that existing health services do not have effective policies and procedures for disinvestment.[3,4] It is commonly asserted that there is more scope for disinvestment than is currently occurring but this is usually based on perceived gaps in policies and procedures rather than evidence of the specific problems associated with the efficacy and safety of the TCPs provided within health services.[2,12] There is no empirical evidence in the literature to quantify the scope or nature of the problems associated with ineffective or unsafe TCPs. It would appear therefore that the recent interest in disinvestment is primarily an attempt to fill a perceived gap in existing health service policies and procedures rather than a response to problems associated with the delivery of specific TCPs.

The issue of disinvestment has typically been raised in the context of initiatives and/or policies that are directed towards setting priorities or allocating resources within health services effectively.[3,4,14,16] The approach that has received the most attention in the literature in terms of disinvestment is priority setting. The priority setting approach focuses on the structure and process of decision making and emphasises the importance of factors such as consultation, the values and ethics of the process and the role of evidence and support from experts.[1]

Examples of the priority setting approach have utilised program budgeting and marginal analysis (PBMA), health sector wide (HSW) priority setting, the use of quality adjusted life year (QALY) tables and generalised cost effectiveness analysis. The most prominent example of the priority setting approach is PBMA.[17,18] The starting point of the PBMA approach is to examine the current resources available and how they are spent (ie program budgeting). This is followed by a focus on marginal health gains and costs of changes to determine if a change in allocation of resources will result in a greater health benefit (ie marginal analysis).[18] A framework proposed by Mitton et al (2003) involves asking the following questions:

1. What is the total amount of resources available?
2. How are these resources currently spent relative to priorities and activity?
3. What is the 'wish list' of services that are the main candidates for receiving more resources (and what are the costs and benefits of these expansions)?
4. Can any existing services be provided as effectively but with fewer resources, allowing some of the items on the wish list to be implemented?
5. Are there services that should receive fewer resources because they are less effective per dollar spent than something on the wish list?[10]

A later paper by Mitton and Donaldson has published more detailed guidelines to PBMA which are not reproduced here.[14]

PBMA has been applied with varied levels of success in numerous settings in a number of different countries including the UK, Canada, Australia and New Zealand.[7]

In the priority setting approaches, a specific group within an organisation is typically given responsibility for making decisions about resource allocation or priority setting. This may be an existing committee or decision making body within an organisation although most examples within the literature refer to groups that are specifically convened in order to undertake a disinvestment initiative with a priority setting or resource allocation framework,[12,16] This group is typically referred to as an 'expert panel' or 'advisory group'.[17,18]

In the PBMA approach, the membership of the advisory panel and various stakeholder groups is an important consideration. The objective is to achieve adequate representation from key stakeholders without producing an unworkable process.[18] The membership may include managers, policy makers and clinicians and may also extend to consumer representations or other members of the public.[17,18] Typically input is sought from experts with knowledge of key clinical and financial data and evidence from clinical research studies is also utilised.[18] Often support is sought from external experts who can provide guidance to the priority setting process including the evaluation of evidence including economic considerations.[7] The size of the decision making group used in these approaches varies according to factors including the scope and objectives of the task, the process adopted and the availability of skilled staff. In an evaluation of seven PBMA initiatives in Canada the expert panel size ranged from 2 to 12 members.[7]

Discussion

'Disinvestment' has been the term most commonly used to describe the process of reducing or ceasing TCPs that provide less favourable health outcomes than known alternatives. While this term may have some negative connotations due to its association with public cost cutting exercises it would appear at this stage that other terms such as 'resource release' are not likely to achieve wide application as an alternative. This suggests that in order to overcome any negative preconceptions those responsible for implementing disinvestment initiatives will need to give careful consideration to explaining the process. It is possible that within health services many clinicians whose practice is affected by disinvestment initiatives may initially view this type of initiative as a cost cutting exercise particularly if they have no role in deciding how the 'released' resources are used.

The concept of disinvestment that emerges from this review is that of a policy initiative or strategy that is being proposed as solution to the pressure of funding TCPs. In this paper we have summarised the various definitions of disinvestment that have been proposed in the literature. It is apparent that some similar themes emerge from this summary. Many of the definitions identified refer to a TCP that is clinically ineffective or offering little health gain. However there are some inconsistencies and lack of clarity regarding the scope and as yet no clear statement of operational criteria. For example some authors refer to unsafe practices as a potential criterion while others do not. Also some approaches appear to be based on a comparative assessment whereby the process of selecting practices for disinvestment or resource release involves consideration of a broad range of factors. No single accepted definition has emerged from the literature to date. This may reflect in part the differences in the health services or systems in which the context of disinvestment has been discussed.

While the lack of clarity of the concept may be understandable at this point it raises potential difficulties for those managers or policy makers who need to develop clear operational criteria when implementing disinvestment initiatives. It is also important in relation to the design and implementation of research and evaluation projects addressing the issue.

At the most basic level we can understand disinvestment as a policy-driven initiative that is directed towards releasing resources to be used more effectively. Viewed from this perspective the rationale and objectives of this type of initiative become clear and this provides a useful framework for understanding the concept, how it may be operationally defined and the processes for decision making and implementation.

The most relevant approach is the priority setting framework of which the PBMA initiatives are most prominent. The theoretical framework informing the priority setting approach is within the rational decision-making tradition. This approach is generally consistent with the philosophy underlying the evidence based medicine (EBM) approach in which decisions are informed by analysis of evidence which includes objective scientific evidence from clinical trials. The positivist empiricist approach to EBM has been criticised on the grounds that it does not adequately deal with cultural, political, and social contexts and values.[19] It is important to consider such criticisms in the context of decision making processes within a health service where these factors are likely to be important influences – indeed it has been argued that issues of politics, culture and power should be considered to be potential barriers to effective disinvestment.[3,4,7] Some of the PBMA approaches have sought to include consideration of issues such as values and ethics within the framework they have adopted.[17,18]

Conclusion

We attempted to explore the conceptual and policy perspectives emerging from the literature regarding disinvestment. Whilst the term disinvestment does appear to have negative connotations it is the most commonly used term and it seems unlikely at this stage that more positive sounding terms such as resource release will become favoured.

In terms of operational criteria the major themes emerging from the literature are that disinvestment relates to TCPs that are unsafe or harmful; clinically ineffective or of no or low health gain; outdated, superseded or obsolete or cost ineffective.

From a policy perspective it seems that interest in disinvestment has been driven primarily from the need to release resources to fund new and emerging TCPs, rather than response to problems or safety issues with delivery of existing

TCPs. The idea of disinvestment seems to arise from policies or initiatives directed towards setting priorities or allocating resources within a health service and the most commonly reported method of priority setting is PBMA. The methods of PBMA allow the consideration of evidence and economic consideration as well as values and ethics.

Any attempt to implement disinvestment in initiatives within a health service will require careful and thorough explanation of the process and involvement of appropriate stakeholders in order to avoid negative connotations of the exercise.

References

1. Norman, H, Husereau, D, Boudreau, R (2007) Priority setting for health technology assessments: A systematic review of current practical approaches. Intl J of Technology Assessment in Health Care, 23 (3), 310-315
2. Walker, S, Palmer, S, and Sculpher, M (2007) The role of NICE technology appraisal in NHS rationing. British Medical Bulletin, 81 and 82: 51-64
3. Pearson, S. and Littlejohn., P. (2007). Reallocating resources: How should the National Institute for Health and Clinical Excellence guide disinvestment efforts in the National Health Service. Journal of Health Services Research and Policy 12(3): 160-165.
4. Elshaug, A., Hiller, J, Tunis, S. and Moss, J (2007). Challenges in Australian policy processes for disinvestment from existing ineffective health care practices. Australia and New Zealand Health Policy 4: 1-23.
5. Ricketts B. "Cultivating the intelligence of commissioning". Presented at the Early Achievers & Pioneers Whole Health Community Workshop Primary Care & Commissioning Focus 25 July 2007.

   http://www.pcc.nhs.uk/uploads/18_weeks/august_07/18_weeks_bob_ricketts_cultivatingtheintelligenceofcomm.ppt (Accessed February 2008)
6. Davies, C. and P. Walley (2002). Quality of care: replacing or removing ineffective services. International Journal of Health Care Quality Assurance 15(3): 124-129.
7. Mitton, C. and Donaldson., C. (2003) Setting priorities and allocating resources in health regions: Lessons from a project evaluating program budgeting and marginal analysis (PBMA). Health Policy 64: 335-348
8. Mitton, C. Donaldson, C, Shellian, B, and Pagenkopf, C (2003). Priority setting in a Canadian surgical department: a case study using program budgeting and marginal analysis. Can J Surg ;46(1):8.
9. Appelbaum, P. S. (2002). "Response to the presidential address--the systematic defunding of psychiatric care: a crisis at our doorstep." American Journal of Psychiatry **159**(10): 1638-1640.
10. Kane, T. J. (1989). "Opinion: Systematic discrimination: A strategy for survival." Administration and Policy in Mental Health **16**(3): 179-182
11. Elshaug, A., Hiller, J, and Moss, J (2008). Exploring policy-makers perspectives on disinvestment from ineffective healthcare practices. International Journal of Technology Assessment in Health Care 24(1): 1-9.
12. Scott, S (2004) – Potential for disinvestment in procedures of low health gain in Scotland. Presented at the Priorities in Healthcare Conference, Nov 2004.

    http://www.helse-nord.no/getfile.php/RHF/Prosjekter/Making%20it%20Work/Potential%20for%20disinvestment%20in%20procedures%20of%20low%20health%20gain%20in%20Scotland%20-%20Sheila%20N%20Scott.ppt (Accessed February 2008)
13. Sheldon, T. A. C., N. Dawson, D, Lankshear, A. Lowson, K. Wott, I. West, P. Wright, D. and Wright, J. (2004). What's the evidence that NICE guidance has been implemented? Results from a national evaluation using time series analysis, audit of patient's notes and interviews. British Medical Journal 329: 999-1008.
14. Mitton, C. and Donaldson., C. (2004). Health care priority setting: principles, practice and challenges. Cost Effectiveness and Resource Allocation 2:3.
15. Addanga, E, Leo Voordijka L., van der Wilta G., and Amentba, A. (2005) Cost-effectiveness analysis in relation to budgetary constraints and reallocative restrictions. Health Policy 74: 146–156
16. Cohen, D. and Cohen D. (1994). Marginal analysis in practice: an alternative to needs assessment for contracting health care. BMJ 309(6957): 781-4.
17. Mitton, C. M., J, Cranston, L. and Teng, F. (2006). Priority setting in the Provincial Health Services Authority: Case study for the 2005/2006 planning cycle. Healthcare Policy **2**(1): 91-106.
18. Ruta, D., C. Mitton, et al. (2005). Programme budgeting and marginal analysis: bridging the divide between doctors and managers. BMJ **330**(7506): 1501-3
19. Goldenberg, M. (2006) On evidence and evidence-based medicine: Lessons from the philosophy of science. Social Science & Medicine 62: 2621-2632

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