

Medical supplies reform in Papua New Guinea: Some conceptual and historical lessons

Key points

- Reform of PNG's medical supply system is both critically important and incredibly complex.
- PNG reformers will need to be committed and courageous for an extended period of time, as will their external supporters.
- There is a strong conceptual and practical case for donors to support this process through the direct provision of medical supplies.
- There will be pressures – both internal and external – to end external support prematurely. If conceptual and historical lessons are to be beneficial, this pressure is to be resisted.

Medical supplies (drugs, dressings and equipment) are essential to an effective health service, regardless of how the service is provided or by whom. Efforts to improve the quality of service through training, supervision, innovation or partnership are almost nonsensical if a basic input such as medical supplies is not in place.

In April this year, the Papua New Guinea National Department of Health (NDOH) reported that it was making a serious effort to confront the dysfunction that has plagued the country's medical supplies system for a decade or more (1).

According to the report, the reforms being introduced confront widespread and entrenched corruption in the procurement and distribution of medical supplies in PNG. Secretary of Health, Dr Clement Malau, is quoted as saying:

That means purchase of quality required drugs and timely delivery to their facilities. At the moment, it's not happening effectively, so we want to improve on their efficiency, we want to look at the governance issues behind it, the corrupt issues behind it. We want to fix that as well.

The Secretary also indicates that a core element of reform is a "restructure of the drug procurement and tendering process". This is being done with the support of AusAID.

My purpose in preparing this brief is to support these initiatives by drawing on a number of conceptual and historical lessons to provide insight into factors which may facilitate or constrain reform.

The brief proceeds in three parts. The first outlines a conceptual framework to assist in understanding reform in fragile states. The second applies this framework to an analysis of the medical supplies system and its reform in PNG, using historical evidence and empirical data. The final part draws together lessons beneficial to the reform effort.

A Conceptual Framework for Understanding Reform in Fragile Environments

The conceptual work of Lant Pritchett and his colleagues on the mechanics of "persistent implementation failure" and "capability traps" offers some important insights for reform in fragile developing states. (2) (3)

The essence of the Pritchett et al argument is that there is a tendency for fragile, poor performing countries to "mimic" external organisations through the adoption of "best practice" in order to accelerate development. Function it is assumed will follow form. Imbued with the apparent "success" of their actions (introduction of policy, operating procedure, increased budget allocation), and operating under a cloud of "wishful thinking", those introducing reform then ask too much, too soon of fragile organisations and implementation failure follows. This phenomenon is described as "premature load bearing". The authors argue that such failure becomes "persistent" due to a range of incentives that operate on both internal and external actors to keep searching for best practice, whilst measuring progress of inputs/outputs rather than outcomes, and not looking for alternatives. This can lead to a recurrent dynamic of failure and a "capability trap".

Pritchett et al articulate a number of elements of a conceptual framework that might constitute an alternative development strategy for fragile countries who find themselves in a "capability trap":

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The only way forward is to allow for a more organic process of change, thus ensuring that institutions are embedded in the local context from which they obtain the necessary robustness to cope with stresses. More policy space is required for contextual solutions that may diverge from international best practice. At the same time the international community will need to maintain a certain amount of pressure that meaningful reform does unfold, that localised solutions do not become a free pass to state capture by powerful elites, and that the direction of reform does lead to a more equitable distribution of outcomes. (3)

Central to this strategy is the need for the state to adopt a more realistic and strategic view of what it can, and critically needs to, do. In the short to medium term others should, temporarily at least, take on parts of the functions of the state. They argue:

..the role of the state is crucial for development assistance, and therefore we have to treat the state capability as a scarce resource, or perhaps even a binding constraint on development.... State capacity should be used in those spheres where it is most crucial and strategic, and that tasks should remain within the limits of what can genuinely be accomplished.... Non-strategic functions can be outsourced, and a strategic plan can be put in place for a slow and gradual transfer of responsibility back to the state. (3)

Finally, the authors argue that accountability must be defined around outcomes, where outcomes include the capability of the system.

..one needs a combination of outcome targets that include measures of both immediate outputs and outcomes, but also how equipped the system is to continue to deliver those into the future. (3)

The Relevance to Medical Supplies Reform in PNG

This conceptual analysis of the mechanics of persistent implementation failure is relevant at multiple levels to the reform of medical supplies in PNG. This relevance can be highlighted with the support of a range of historical and empirical data from PNG.

The first and perhaps most fundamental point of intersection is context. The effective provision of medical supplies in PNG – a large, complicated and multifaceted endeavour – is occurring in an extremely challenging, fragile environment.

Medical supply is a system with many parts: forecasting; tendering; payment; currency exchange; receipt; transport; storage; ordering; distribution; dispensing; monitoring and; quality assurance. In PNG, various reviews have identified significant problems at nearly every stage of this system. The following vignettes from different points in time and different parts of the system highlight the magnitude of the problem confronting the reform effort.

In 2002, an international accounting firm reviewed NDOH medical supplies tendering and payment practices and found serious cause for concern. Where efforts to investigate these concerns led to delays in processing or delayed supply, immense public and private pressure was brought to bear on individuals and organisations in the system.

In 2004, the PNG Public Sector Reform Management Unit, as part of the 'Medical Supplies Functional and Expenditure Review', assessed the performance of the regional Area Medical Stores (AMS) in the following terms:

AMS were not focussed upon assisting their customers - the health facilities. A number of symptoms of this were observed. In some cases, medical supplies are packed and left at the dispatch section for weeks and months, whilst enquiries from customers in remote areas about their medical supplies ordered some eight months ago were not treated seriously.... [Also] productivity at AMS is very low. There appears to be no sense of urgency and respect for their daily core business. This is as a result of leadership/management deficiencies, poor attendance by AMS staff, low morale, and a general lack of skills. In many AMS it was stated by managers that casual workers were the best workers. Very few people had the 'big picture' of operation of a medical store. In some AMS, store persons were not literate and unable to undertake the basic arithmetic calculations required in a store. (4)

In 2005, a health sector review identified the following problems at the health centre level:

Such difficulties leave a lasting impact on communities, which suffer from a lack of medicines and expired medicines being distributed, as well as poor management of pharmaceutical services generally. The assessment in Oro (Northern), Western and Western Highlands provinces in late 2005 concluded that poor management systems resulted in a 'significant lack of cleanliness and tidiness; absence of basic hygiene and infection control; contaminated waste and sharps disposal being frequently inappropriate and unsafe..., highly variable quality of knowledge and skills for diagnosis and treatment; the widespread inappropriate use of antibiotics; lack of basic diagnostic tools and poor laboratory quality control.' (4)

In 2011, Dr Kuave Pomat, head of the PNG Doctors Association, summarised the problem for hospitals in the following terms:

When there was shortage in one hospital and the hospital goes to the area medical store for those medicines. The area medical store may not respond quickly and the longer it is taking (sic), there is no effective disciplinary channels in place for which the hospital will take up with any higher authority. And so the movement of those things depend now on individuals who suddenly think they're bosses unto themselves and I guess in Papua New Guinea, the public system have thieves in every place (1).

The critical contextual point from these assessments is that the foundation of the existing medical supply system in PNG is extremely fragile. Most, if not all, parts of the system need to be strengthened if desired outcomes are to be achieved. It is unlikely that all parts can be strengthened simultaneously. As such, careful staging of reform will be critical. There should be no expectation that reform will be easy, quick or necessarily linear. Flexibility and patience will be required.

The lure of "best practice"

Changes proposed as part of the reforms that claim or look like "best practice" should be treated with extreme caution. "Big bang" changes may be tempting – and in some areas possibly required – in

others more gradual, interim or "second best options" may need to be pursued, at least for a period of time. By way of example, Dr Pomat (PNG Doctors Association) is quoted in the report referred to as arguing that hospitals in PNG should be allowed to procure medical supplies directly (1). Whilst this may have downsides in terms of economies of scale for procurement, and carry some upfront accountability risks, it may also have advantages in terms of more powerful local incentives for performance. (Hospitals in PNG are overseen by external boards). It may also offer a release valve while central level procurement reforms are worked through.

Creating space for sustainable state capacity development

As with "best practice", the temptation of "premature load bearing" needs to be recognised and resisted. In a highly stressful and contested environment, it is likely that a new set of policies or procedures (particularly with donor fingerprints on them) will not be accepted without criticism, and probably resisted. New approaches need to be carefully introduced, evaluated, and supported for a period of time. In the context of a full understanding of the interconnected nature of the medical supply system, care is needed to ensure that a fix in one part of the system is not undermined by a continuing fault in another. Such discontinuities can fatally undermine the credibility of reform efforts.

If the reforms are to be given the space to develop organically (as opposed to best practice/big bang) in line with available capacity, then purposeful strategies are needed to generate this space. Without this purposeful effort, the very nature of medical supply (i.e. lifesaving and with a high public profile) creates an immense pressure on the state to "just get it done", which often leads to poor practice. The key objective of creating space is to ameliorate the pressure to go for quick fixes which may look good, but lack depth and functionality.

One avenue is for an alternative organisation to provide some or all of the medical supplies required for a period of time, during which the NDOH sustainably develops and embeds changed practice. In PNG there is a history of donors successfully fulfilling this function (see below). It may also be possible for a local organisation to temporarily fulfil this role.

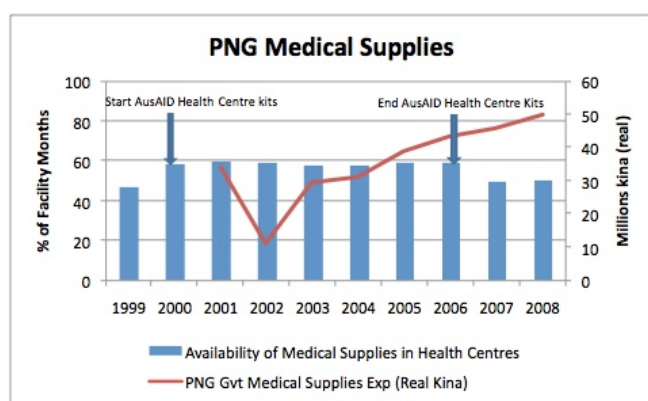
However it is done, it will be essential if sustainable reform is to occur. There are simply too many parts of the system that require fixing, and too few people capable of doing this work.

A constant focus on appropriate outcomes

PNG has a reasonably developed health information system capable of producing a range of important and relevant data on health service performance. In relation to medical supplies, this information system reports monthly on the availability of nine essential supplies for each of the approximately 500 Church and Government health centres. This data provides a fairly sensitive measure of the key outcome of this reform: the availability of essential medical supplies throughout the country. Importantly, this indicator does not just measure one element of the system, it reflects a number of them: forecasting, procurement and distribution.

Historically this data has been underutilised as a resource to both track the progress of reform efforts and as a diagnostic tool to identify and explore particular problem areas (or successes).

The relevance of focussing on this kind of data as an appropriate measure of reform performance is illustrated below. The following graph – compiled from a variety of sources – tells a story in three parts.



Source: (5) NDOH National Health Plan (2011-2020); (6) NDOH Annual Sector Review (2002-2006); (7) Department of Treasury, National Budget 1999-2008.

First, the blue bars indicate the availability of essential medical supplies in health centres in PNG from 1999 to 2008. There was a clear increase in availability of supply in 2000, maintained to 2006, which dropped in 2007 and 2008 to the 1999 level. To my knowledge 2009 and 2010 data has not yet been analysed and published by the NDOH, however the recent report announcing the

reform of the medical supply system indicates that issues of poor availability continue. (1)

Second, the graph offers a likely explanation for the increase in availability between 2000 and 2006. Starting in 2000 and ending in 2006 a donor (AusAID) supported a program of direct (outside of government) procurement and distribution of medical supply kits to health centres. The kits provide 40 per cent of the annual requirement of an essential package of services for each health centre in the country. They were provided three times a year.

Third, the graph shows a reported increase in Government expenditure on medical supplies over the period to 2008 in real kina terms – a trend (not shown in the graph) which has continued to the present.

Viewing the data in this form provides a number of insights vis-à-vis the medical supply performance in PNG over the past decade. It also serves to highlight a number of the risks and opportunities to reform identified in the Pritchett et al analysis. Specifically:

An external actor (donor in this case) can successfully complement government efforts in the provision of medical supplies and increase the national availability of supplies.

The phenomenon of “premature load bearing” is real as witnessed by the decline in availability of supplies at the end of the donor program (to the level that existed prior to commencement of the program). Any assumption about enhanced PNG capacity in this area was optimistic.

The importance of maintaining focus on the key outcome. In the above example, inputs in the form of increasing government expenditure did not translate into increased availability of medical supplies at a health centre level (despite there being declining utilisation during that period). Reforms need to be constantly tested and calibrated against observed performance.

There are also other potential uses of the data which could support the reform effort. The data can be analysed by provincial, district and health centre level, which would highlight better/worse performance. This in turn may provide insights into obstacles or facilitating factors for reform efforts. The data could also be made more available to bring public pressure for performance.

Lessons for medical supplies reform in PNG

The key points from the above conceptual and historical analysis can be summarised as follows:

1. There is a pressing need for major reform.
2. The task is large, complex and likely to require sustained efforts, at multiple levels, over a considerable period of time. The focus on national level procurement and distribution are part, not the total, of effectively getting supplies to peripheral health services. Careful phasing of the reform effort will be required.
3. The reform effort will face significant resistance. This resistance, in conjunction with the stress of reform may, in the short to medium term, result in the reduced availability of medical supplies in the country.
4. There is an important role for donors (or others outside of NDOH) to support reform through the direct provision of medical supplies. This will likely be required for a considerable period of time.
5. The creation of space via direct provision of medical supplies will be critical for the NDOH to sustainably and appropriately embed new systems and approaches. It is critical that this space is used to avoid the trap of “best practice” and to seek PNG-specific solutions embedded in more robust institutions.
6. Whatever new systems/approaches are developed, the tendency towards “premature load bearing” (placing too much, too soon on new approaches) needs to be guarded against.
7. Current medical supply availability data at the health centre level provides an appropriate and accessible measure of the effectiveness of reform. This, along with other systems-level outcome measures, should be rigorously analysed and widely disseminated as the reform effort is undertaken.

Conclusions

Reform of PNG’s medical supply system is both critically important and incredibly complex. PNG reformers will need to be committed and courageous for an extended period of time, as will their external supporters. There is a strong conceptual and practical case for donors to support this process through the direct provision of medical supplies. There will be pressures – both internal and external – to end external support prematurely. If conceptual and historical lessons are to be beneficial, this pressure is to be resisted.

Notes

1. Radio Australia, (8 April 2011) PNG to overhaul drug procurement <http://www.radioaustralia.net.au/pacbeat/stories/201104/s3186457.htm>
2. Pritchett L, Woolcock M and Andrews M (2010), *Capability Traps? The Mechanisms of Persistent Implementation Failure*, Centre for Global Development, Working Paper 234 http://www.hks.harvard.edu/var/ezp_site/storage/fckeditor/file/pdfs/centers-programs/centers/cid/publications/faculty/articles_papers/pritchett/Capability_Traps.pdf
3. Pritchett L and de Weijer F (2010), *Fragile States: Stuck in a Capability Trap*, World Development Report 2011 Background Paper http://siteresources.worldbank.org/EXTWDR2011/Resources/6406082-1283882418764/WDR_Background_Paper_Pritchett.pdf
4. Cammack D, *Chronic Poverty Report in Papua New Guinea*, http://www.chronicpoverty.org/uploads/publication_files/CPR2%20Background%20Papers%20Cammack%20New.pdf
5. PNG National Department of Health (2010), *National Health Plan (2011-2020)*
6. PNG National Department of Health (2002-2006), *Annual Sector Review*
7. PNG Department of Treasury (1999-2008), *National Budget*

Policy Brief

This is the second Policy Brief of the Development Policy Centre. Readers are encouraged to contribute comments by email (andrew.mcnee@anu.edu.au) or by posting a comment on our blog at devpolicy.org.

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