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Starting from here: Challenges in planning for better health care in Tanzania

Maureen Mackintosh and Paula Tibandebage

Introduction: the health sector as a social and economic institution

Health sectors are social and economic institutions. They reflect the broader political economy

of their country, and contain within them the economic characteristics, power relations and

hierarchies of the broader society – while also, strikingly, providing a location for redistributing

resources, responding to need, and contesting disadvantage and exclusion (Mackintosh 2001;

Freedman 2005).

In Tanzanian health care, the public health sector reflects this low income economy's acute

fiscal pressure, and also society's gendered social hierarchies of employment, training, income

and status (Mackintosh and Tibandebage 2006). The private providers are increasingly

bifurcated into hospitals and clinics relying on the (limited) insurance market, and lower level

facilities operating as small businesses, on a cash-in-hand basis that reflects the business

structure characteristics of much of the wider economy (Mackintosh and Tibandebage 2007;

Kida 2009). The faith-based health providers reflect the diversity of faiths in Tanzania, while

their financial fragility reflects widespread poverty. The role of donors is very large in health,

reflecting the broader history of donor conditionality in Tanzania that stretches back to the

1980s.

The Tanzanian government and donors fund salaries and inputs for a public health sector that

was initially universalist and inclusive in intention, well reflected in its efforts to develop the

health infrastructure in rural areas where the majority of the population live. By 1992 about 72

percent of the population lived within five kilometres of a health facility. Indeed following the

1967 Arusha Declaration, Tanzania chose a socialist path under which its health policy aimed

at providing free health care to the entire population. The result was pyramidal health services

infrastructure than continues today: 86 percent of all facilities in 2014 were dispensaries, and

currently the Primary Health Services Development Programme (URT, 2007) aims to have a

dispensary in every village, and a health centre in every ward.

1

However the universalistic intentions have been compromised by broader changes in Tanzania's political economy, starting with liberalisation policies under the Structural Adjustment Programme (SAP). Health sector reforms under liberalisation included introduction of user fees in public health facilities and re-introduction of for-profit private practice in the early 1990s. Exemption mechanisms for those unable to pay remain ineffective, and the majority of the population have no health insurance. The universalistic intentions also continue to be compromised by inadequate funding of health care that disproportionately affects the poor. As a result, most attempts to access care now require payment (Tibandebage and Mackintosh 2005; Tibandebage *et al.* 2013; Mackintosh *et al.* 2013). Furthermore, most material inputs to health care, medicines and other essential supplies, are externally produced and imported, reflecting the country's low level of industrialisation, liberalised import regime and import-dependence (Tibandebage *et al.* 2016).

For Tanzanian health planners aiming to move towards universal health coverage, this context is highly challenging. Those planning health care in Tanzania include both national and local government authorities, since primary health care delivery is decentralized to Local Government Authorities (LGAs) in line with the broader Decentralisation by Devolution (D by D) approach in public sector management (another reflection in the health sector of broader policy shifts). Planning, budgeting, implementation and monitoring are decentralized to the District Medical Officer's office and Council Health Management Teams, with institutional and administrative bodies working at lower levels. This chapter addresses these different levels, in examining some of the challenges. It aims to contribute to building understandings of the scope for developmental planning for better health that is "context- and place-specific in strategy" while focused on practical problem-solving (Srinivas 2016: 190).

The challenge of institutional redesign

The current levels of exclusion and poor quality of care in Tanzanian health care are very serious, and the challenge involved in moving towards universal health coverage is enormous. We argue in this chapter that planning for improvement is a process of institutional (re)design, by which we mean the conscious encouragement of institutions that display 'goodness of fit' with 'some larger objectives than those narrow ones embodied in the internal goals of the institution and its immediate environment' (Goodin 1996: 39). Here, the larger objective is universal health coverage, countering social and economic disadvantage. Institutions evolve

from the here-and-now, so design must make sense 'from within' and be pursued in good part by insiders (Mackintosh and Tibandebage 2002).

Better institutional design in Tanzanian health care requires planners to tackle two closely interlocking problems in political economy: the perverse incentives inherent in the current market structures, and the lack of political and economic priority assigned to the health needs of the low income and disadvantaged population. This in turn, we have argued at more length elsewhere (Mackintosh and Tibandebage 2002), requires a rethink of the concepts of planning and regulation. In its most general terms, the health crisis requires explicit moves towards a new social settlement in health care between the better off and the acutely disadvantaged (Mackintosh and Tibandebage 2004; Mackintosh 2001), a settlement that embeds increasingly redistributive health care institutions within a framework of improving health care access for all, including the Tanzanian middle classes who are also struggling to fund and find reliable health care. This challenge in turn requires the rethinking of the public/private interface in Tanzanian health care (Tibandebage *et al.* 2013).

Conceptually, institutional change in health sectors is generally path-dependent, evolving from current organisational structures and culture (the "here and now"). Planners may divert that evolution into different paths, and occasionally engineer real breaks in trends, but they cannot start from scratch. In investigating scope for planned improvement, we employ concepts familiar to institutional theorists: social norms, incentives (market and non-market), and institutional feedback loops. Norms can be understood as patterns of behaviour that are widespread, are generally tolerated or accepted as proper, are reinforced by responses of others and are quite hard for individuals to resist even if they run against what is felt to be right (Tibandebage and Mackintosh 2002). They "form a web of beliefs and practices whose different strands mutually reinforce each other" (Sen *et al.* 2002), forming feedback loops that may be reinforced by material incentives and financial constraint.

To make these arguments we employ two contrasting "lenses" to illuminate the institutional characteristics of the current health sector, and the redesign challenge. The next section uses a gender lens identify some perverse consequences of embedded gender inequalities for maternal care. The following section uses a market lens, exploring perverse incentives embed in the Tanzanian health care market structure and incentives that are currently undermining health

care quality and access. The final section argues for the need for, and possibility of, a more imaginative and flexible regulatory structure, with more emphasis on building compatible incentives and collaborative behaviour, to improve health care in the medium term.

Maternal mortality: A gender lens on health sector inequity

Tanzania continues to suffer a huge burden of mortality and morbidity related to childbearing. World Health Organization data (WHO *et al.* 2015) estimate the Tanzanian maternal mortality ratio (MMR), the number of maternal deaths per 100,000 live births, at 398 in 2015, with a wide uncertainty interval, and a woman's lifetime chance of dying of maternity-related causes at 1 in 36. (Compare the UK, not the best-performing high income country, with an MMR of 9 and a lifetime risk of 1 in 5,800.) In Tanzania, without good civil registration of deaths and where around half of women give birth at home (Table 1), these estimates are highly uncertain (Tibandebage and Mackintosh 2010). What is not in doubt is that these data represent a crisis requiring urgent attention. The causes provide a 'gender lens' (Sen *et al.* 2002) that illuminates the discriminatory gendered structure of the health sector, identifying four interlocking institutional patterns of gendered discrimination that underlie the crisis.

Health care in Tanzania, as in many countries, reflects the huge, gendered social inequalities of the wider society, including gendered hierarchies among staff, and extremely unequal quality and access between social classes (CSDH 2008). Inequalities in access to maternal care during delivery by area of residence (rural vs. urban), by education and by wealth status, clearly suggest that the MMR will be higher among poor, less-educated rural women (Table 1). Better-off women and women with more education are also more likely to be assisted by qualified staff: 90 per cent of women in the highest quintile had skilled assistance at birth, as compared to 33 per cent in the lowest quintile (NBS 2011: 137).

As Table 1 shows, women at all income levels rely mainly on public health facilities for skilled care at birth. Obstetric complications including haemorrhage and sepsis are leading causes of maternal death, so access to emergency obstetric treatment is essential. Yet most women rely on health centres and dispensaries which often lack basic supplies, medicines and equipment, and have severe shortages of staff with the skills to handle complications during pregnancy and delivery. For example, in 2012-13, out of 25 health centres and dispensaries surveyed, 38 per

cent did not have oxytocin injectable, for treating post-partum bleeding. Even hospital delivery does not assure safety. Essential supplies are often lacking there too, and skilled staff are frequently under great stress. As one hospital director said in 2011: "Women get there [to hospital], *then* they die" (Tibandebage *et al.* 2015).

TABLE 1 NEAR HERE

Four interlocking structural patterns of disadvantage have sustained a cycle of gendered discrimination underlying the mortality crisis. First, the government hospitals are too few, too far from most people's homes, while the health centres still generally lack the ability to deal with obstetric emergencies. The inherited health system structure at Independence in 1961 was focused on a few large urban hospitals rather than a dispersed 'cottage hospital' network of the kind that has helped to address maternal mortality in Sri Lanka. Though efforts are now being made to build up health centres' capabilities, the backlog is huge, and has long been reinforced by donors' insistent focus on primary care. The outcome is gender-discriminatory: to reduce maternal deaths requires skilled obstetric intervention, while emergency hospital care is less crucial for other aspects of adult health care, so a bias against the needs of women of child-bearing age is built into the public health sector structure.

Second, improvements in access to supplies for maternal care have been slow in coming, in contrast to donors' major efforts to improve access to treatment for HIV/AIDS, malaria and tuberculosis. Maternity – however lethal – is not a disease, and its priority has not matched the three major diseases within donor funding. Access to medicines in Tanzania is now mainly funded by donors or by out-of-pocket payment (Mackintosh *et al.* 2016a). Government and donors have failed to prioritise supplies for maternal care, both at antenatal care and at birth, including test kits, antibiotics, and emergency care supplies.

Nor, third, can pregnant women afford to fill the gap. Maternal care is officially provided free of charge in public facilities in Tanzania. However, the level of commercialisation is quite substantial, especially in urban areas. Of 240 women interviewed in a 2011 study, just 7 per cent had paid nothing for maternal care, and the percentage was lower in urban areas. Table 2 shows the mean payments at most recent birth recorded in two urban districts (away from the commercial hubs of Dar es Salaam and Arusha). The payments include informal charges and

also the money women or their families spent buying supplies in private shops to bring to the facilities. These charges can have a disproportionately severe impoverishing effect on women of childbearing age, who may need to borrow from others in the wider family, draw on tiny savings or sell assets such as farm animals to pay maternity charges. For a low-income household, finding cash for charges may be impossible and can cause conflict.

TABLE 2 NEAR HERE

Finally, fourth, public hospitals display a sharp gender hierarchy of working conditions and status, with most nurse-midwives being female, and many doctors male. Public hospital delivery wards are frequently understaffed and over-crowded. Midwives feel overwhelmed, and often disempowered (Tibandebage *et al.* 2015), and many complain of lack of support from doctors and managers. Working conditions are poor, and incentives frequently lacking. The outcome can be deteriorating relations between the midwives and the women they served:

Midwives are not respected. This is because this job is a very hard job. The community has a wrong perception of us, they say we have hard hearts and bad language towards the women we are attending.

Nurse-midwife, public hospital, 2011

Maternal care centrally involves women caring for women, and the gendered power relations of the wider society undermine the quality of those relationships.

Charging for care, paying for imports: Health care commercialisation, polarisation and externalisation

A second "lens" on the institutions of the health sector is provided by close attention to its market structure and the patterns of competition and embedded incentives. Charging for care – through formal charges for consultation, tests and medicines, informal changes, and sending patients to buy medicines in shops – is very widespread in the public sector, and nearly universal in the faith-based and private sectors of Tanzanian health care. Exceptions include some of the 'vertical programmes' that support and supply free-of-change HIV/AIDS and TB treatment. Charging is almost entirely on-the-spot, out-of-pocket payment, and that charging system influences the behaviour of health care facilities in all three sectors.

Public facilities that can retain their formal fees for facility use — this includes most hospitals and some lower level facilities — rely on that funding for filling gaps in medicines and supplies. The government pays salaries and provides public health facilities with a budget for medicines and supplies at the public wholesaler, but funds for supplies are insufficient and often late. The cash from charges forms an essential resource to help to fill the gaps. Dispensaries and health centres often have to deposit the income from fees and charges with the local authority, leaving them with no cash-in-hand whatsoever; the result can be facilities without soap or disinfectant, while patients are sent to buy not only medicines but also supplies such as gloves and even syringes. This was a frequent comment in a 2012/13 study:

Yes, we have a problem of shortage of supplies because of shortages of financial resources. What we collect [in fees and charges] is not enough [to fill gaps] so we have constant supply shortages.

Hospital pharmacist, public hospital

There are few studies of the business behaviour of the faith-based and private facilities. Our research in the late 1990s included investigation of the finances of a sample of health facilities, public, private and faith-based (Tibandebage and Mackintosh 2002; Mackintosh and Tibandebage 2007). The finances of almost all the faith-based and private business were fragile, as might be expected in this very low income market for health services, and all the facilities relied on margins from medicines sales for income to pay staff. The health care and medicines markets are highly price-competitive (Mackintosh and Mujinja 2010), and the private dispensaries and health centres in particular closely watched and responded to competitors' pricing (Mackintosh and Tibandebage 2007). Businesses were mainly small scale, often reliant on family and informally hired staff, and poorly regulated: it is hard to regulate a market of this type with rapid turnover of businesses and very limited regulatory resources. Faith-based facilities struggled unless subsidised by parent religious or NGO bodies, and varied widely in charges and quality (Tibandebage and Mackintosh 2002).

The implications of these market incentives for quality of health services in the non-governmental sectors were severe. Private businesses attempting to staff health centres or dispensaries with qualified people were rapidly undercut by competitors using less skilled, informal and family employees (Mackintosh and Tibandebage 2007). The reliance on medicine sales in conditions of generalised poverty generated a culture of selling part-doses of

medicines, with potentially severe effects in terms of outcomes and resistance (Mackintosh and Mujinja 2010; Mujinja *et al.* 2013). The market for treatment and medicines was already polarising in the late 1990s between a higher price sector for a small layer of the better-off, and deteriorating quality for the very low income majority. In 2006, this polarisation, fed by feedback loops between urban poverty and market behaviour, was confirmed for a socially mixed area of urban Dar es Salaam (Kida 2009). In urban areas, public facilities are fewer and reliance on non-governmental facilities and shops is higher, and Kida's research showed that, where public facilities were experienced as of lower quality, reliance on the private suppliers was greater, and the lower priced, low quality facilities were the busiest. One well attended example, an illegally operating (unregistered) private dispensary in a squatter area, was run single-handed by an assistant laboratory technician, offering a wide range of treatments including wound dressings, injections, admission of patients, without appropriate premises, running water or a refrigerator (Kida 2009).

As noted above, the problems of medicine supply to the public sector is one of the drivers of patients' reliance on private facilities and shops. By the late 2000s, international donors had begun to focus large amounts of finance on providing medicines for HIV/AIDS, TB and malaria. The benefits of this funding, especially for HIV and TB, are very substantial. However, the impact on access to reliable medicines more generally has not been strong, and there have been some negative side-effects of the policy. The case of malaria medication illustrates some of these effects. The donors procure medicines through large scale tenders and the market-entry requirement of product-by-product WHO pre-qualification effectively shuts out local pharmaceutical producers. In 2006 about 90 per cent of the then first line treatment for malaria, sulphadoxine-pyrimethamine (SP), was sourced from local manufacturers. From 2007, Tanzania shifted to the more expensive combination artemisinin –lumefantrine (AL) first line medication. Two local manufacturers developed AL formulations but concluded that prequalification (costing an estimated USD150,000) was unlikely to provide market access given the scale and pricing power of Asian competitors. One local firm lost an estimated third of its turnover; others also suffered substantial losses (Tibandebage *et al.* 2016).

Pharmaceutical manufacturing has a long history in Sub-Saharan Africa, and Tanzanian manufacturing began in the 1960s and 1970s, mainly by public sector firms (Banda *et al.* 2016). The industry is largely African-owned, and serves the domestic and regional markets. Linkages

between health sector procurement and local suppliers can provide mutual developmental benefits (Mackintosh et al. 2016b). The industry saw a wave of bankruptcies in the 'structural adjustment' years of the 1980s, but revived in the 1990s. It currently faces several challenges, some characteristic of the wider Tanzanian industrial sector, some specific to pharmaceuticals. In addition to the widespread industrial problems of expensive and unreliable energy, poor ports and roads infrastructure, and difficulty recruiting skilled technicians, the pharmaceutical firms face very high levels of price-based competition from Indian exporters benefitting from subsidies and sometimes engaging in dumping; a tax and import duty regime which can disadvantage manufacturing relative to importing; rising technological and regulatory requirements; and rising international barriers to market entry (Tibandebage et al. 2016). The result has been a falling local share of the domestic medicines market, estimated to have declined from 33 per cent in 2006 to 12 per cent by 2012, while imports from outside East Africa rose from 53 per cent to 78 per cent over the same period (Wangwe et al. 2014), and threatened loss of relatively skilled industrial sector employment. This process of externalisation, and increasing reliance on imports, to which health donors have contributed, mirrors the wider deindustrialisation that has periodically threatened this very low income economy.

Institutional design for improving health care: Planning from the here-and-now

How can those concerned to move the health sector towards universal access to care tackle these interlocking institutional blockages? We summarise four starting points for the required rethinking about institutional design.

The first is to recognise that the current health care market structures are indeed, in identifiable ways, perverse in terms of health and development outcomes. Therefore intervention, including government intervention, civic action and alliances among health and industrial policy makers, health service managers and other stakeholders is required to reorient cultures and incentives into more appropriate forms. Second, culture and hierarchy, including gendered disadvantage, profoundly influence organisational structure and outcomes and need addressing directly. Third, planners should recognise that private spending – mainly, out of pocket expenditure by those struggling to get by – is not currently providing value for money in health care (Tibandebage *et al.* 2013), so the role of private funding in the sector has to change. And finally,

a wider and more activist definition of health sector regulation is required, that includes the regulatory role of public sector provision itself, and the design of a package of measures to associate better private market incentives with more effective use of public and private funds.

A functioning, inclusive and cost-effective health system relies – worldwide – on primary care that is routinely available, physically and financially accessible, of decent and trustworthy quality, with trained staff and effective preventative and clinical care, and working referral. There are however **no** market incentives pushing Tanzanian non-governmental (private and non-profit) provision in this direction, quite the contrary. Planners should therefore seek to work towards a situation where the private sector is not the first resort of the very poor. The private sector should be pushed up-market, to serve as a competent alternative for those with higher ability to pay rather than a very low quality resort of the urban poor.

To do this requires, unequivocally, a very low cost or free – that is, very heavily subsidised – service for the poor (Tibandebage *et al* 2013). It is possible that this could be provided by contracting with competent private providers if they are willing to serve those on low incomes using government funding. It is more likely that this will need to be done predominantly by the public and (subsidised) faith-based sectors which have in principle the organisational competence and cultural commitments to achieve it. The aim should be 'beneficial competition', meaning the active use of accessible public sector, or publically-funded, provision to drive out poor quality at the lower end of the market (Mackintosh and Tibandebage 2002). Better public sector dispensaries in the squatter settlements of Dar es Salaam would, on Kida's (2009) evidence, reduce exploitative recourse to unqualified and dangerous private provision at the bottom of the income scale. This effect is now well established in South Asian contexts such as Kerala and Sri Lanka, where competent and accessible, universalist public sector provision has pushed the private sector up-market and underpinned its competence (Rannan-Eliya *et al.* 2003; Mackintosh 2007)

Accessible competent care has also to extend to maternal care including obstetric emergencies. An effort is underway to improve public health centre capability, including theatres in health centres; also required are sustainable solutions to the chronic shortages of life-saving drugs for maternal health care including handling obstetric emergencies such as haemorrhage. Having a dispensary in every village and a health centre in every ward will not help the majority of the

poor women in rural areas if these primary level facilities continue to face severe shortages of health workers, medicines and other essential supplies, a consequence of low social priority of maternal care. Disempowerment of nurse midwives and other maternal health-care professionals contributes to poor quality maternal health care, and therefore to poor health outcomes (Tibandebage *et al.* 2015). Alongside shortages of staff and supplies and poor infrastructure, the system of hierarchy and management actively de-motivated maternal health workers, who are mainly women. We showed that at the health facility level, supportive, communicative and participatory management really could make a difference to culture and outcomes; management training can create more flexible and interactive management hierarchies.

One potential avenue for tackling the critical recurrent shortage of medicines and supplies in the public sector, exacerbated by long import supply chains and a low political priority for medicines funding evidenced by funding delays and a build-up of government debt to the public medicines wholesaler, is to actively strengthening local medicines production. This in turn requires a more active industrial policy and supportive public sector procurement: the aim is a medium term effect in improving supplies and creating a stronger local industrial lobby for better public procurement (Mackintosh *et al.* 2016b).

More effective use of public subsidy is essential, to build up desirable and complementary non-governmental provision, while effective regulatory intervention is only possible in Tanzania if the resource constraint on inspection and enforcement can largely be side-stepped. This requires collaboration between government and non-government actors to build on identified desirable norms of behaviour: to value and strengthen providers who successfully serve the health care needs of the poor; to achieve legitimacy for formal regulations via negotiation; to strengthen the legitimate claims of low income patients; and to find synergy between supervision and support. Concepts of regulation, still generally understood as arms-length rule-setting and impartial enforcement in the health sector, would need to shift to a more interactive and collaborative concept of the regulator's role, more characteristic of the interactive behaviour of industry regulators in Tanzania, who become involved in supporting local manufacturers to upgrade to meet required standards, and indeed to involve manufacturers in standard setting. The much-invoked 'level playing field' is a casualty of this rethink, being replaced by selective support for good provision.

To follows that the concept of "regulation" needs broadening and more context-appropriate. We follow the socio-legal literature in understanding the organisation of regulatory activity and the issues it addresses – the 'regulatory space' – as historically and contextually constructed, and open to active redesign (Hancher and Moran 1989). Table 3 outlines our principles of a more collaborative approach to regulation. Examples include: accreditation schemes for genuinely charitable faith-based providers; rewarding and supporting preventative care by private providers; strengthening community and individual confidence and scope for complaints and claims; improving the status and working conditions of nurses, and strengthening nurse management.

TABLE 3 NEAR HERE

Finally, how resources are allocated and utilised is also important. Studies and reviews in Tanzania have documented governance problems including lack of transparency and accountability, and corruption, for example in the use of public resources, procurement of health supplies, and health workers' absences from work (Mamdani and Bangser 2004; Kida and Mackintosh 2005; World Bank 2013). Addressing these governance problems requires, among other things, strengthening accountability by promoting community involvement not only in identifying needs, but also in monitoring use of public resources, and improving logistics and information systems between and within different levels of governance.

Conclusion

We have argued in this chapter for a rethinking of the nature of the planning process for health care. To move towards universal access to health care, from the current crisis situation for much of the Tanzanian population, requires a process of institutional diagnosis of the "here and now" in institutional terms, and then a project of active institutional redesign, to realign culture, incentives and objectives. In the process, health planning, while led by government health officials, is necessarily a collaborative process among many stakeholders in public, private and faith-based sectors, and across services, manufacturing and trade. While regulating health markets is highly problematic, perhaps the biggest challenges are cultural and organisational: to move towards a situation where the health sector organisation and culture actively challenges and compensates for some of the worst social inequities in the wider society.

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