

Title of paper

Addressing maternal mortality in Cambodia: the role of politics and evidence in policy-making

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Abstract

Policy scholars have described ‘evidence-based policy’ as simplistic, with more insightful analyses of policy-making processes derived from a political approach to analysis. Drawing on 2015/16 interviews with health-sector stakeholders in Cambodia and a documentary analysis, we reflect on implementation of Cambodia’s Government Midwifery Incentive Scheme. We explore why this policy approach was implemented, and its use of evidence. The policy choice did not resemble an ‘evidence-informed’ approach, rather, drawing on Kingdon’s Policy Streams model, the processes reflect convergence of an identified problem with political will and a politically-acceptable solution, with evidence fitting into the window rather than driving the process.

Key words

maternal mortality, Cambodia, evidence, policy, policy-making

Introduction

Cambodia’s Government Midwifery Incentive Scheme (GMIS) is a government initiated and funded performance-based financing (PBF) mechanism aimed at motivating skilled birth attendants (or trained health personnel) to promote deliveries in public health facilities. It does this by paying midwives and other trained personnel with cash incentives based on the number of live births they attended in public health facilities – USD15 for a live birth in a health centre and USD10 for a live birth in a referral hospital. The reason for the higher payment in a health centre than a hospital is to provide a stronger incentive for deliveries at health centres – the largest primary health care network and the recommended place for normal deliveries (Ir, Korchais et al. 2015).

According to guidance from the Ministry of Health (MOH), besides midwives, physicians and other trained health personnel can also receive these incentives when attending deliveries in public health facilities. Up to 30% of the incentives will be shared with other health personnel in the facility and eventually with other people such as traditional birth attendants (TBAs) who refer women to the facility for delivery (Ir and Chheng 2012). The number of deliveries is reported monthly by health facilities through the routine health information system. Based on the number of reported deliveries, incentives are disbursed quarterly to the facilities through public financial disbursement channels (Ir and Chheng 2012).

The GMIS became operational nationwide in late 2007, following a joint *prakas* (directive) from the MOH and Ministry of Economics and Finance (MEF) to allocate government budget to the incentive payments (Ir and Chheng 2012). Since then, the percentage of deliveries in public health facilities as

a proportion of assisted deliveries at home decreased from 21% to 15% over the same period (Ir and Chheng 2012). The maternal mortality ratio (MMR) declined from, according to Unicef estimates, 315 deaths per 100,000 live births in 2005 to 202 per 100,000 live births in 2010 and 161 in 2015 (Unicef 2017). Improving maternal health was one of the most critical Millennium Development Goals (MDG5), but whilst Cambodia has made substantial progress towards achieving MDG5, the MMR decline has been insufficient to achieve this goal (Ir and Chheng 2012).

This article explores why this particular policy approach – an incentives approach rather than alternative strategies to addressing maternal mortality – was implemented, and to what extent and how this decision was informed by policy-relevant evidence. Cambodia's MOH has, like many government departments in countries elsewhere (Cabinet Office 1999, DEFRA 2011, Government Office for Science 2012), explicitly endorsed 'evidence-based' policy approaches. An example of this endorsement is in the country's second Health Strategic Plan (2008-2015), which defines priorities and goals for the entire health sector, highlighting the need "to strengthen and invest in health information system and health research for evidence-based policymaking, planning, monitoring performance and evaluation" (Ministry of Health 2008). John Kingdon's Policy Streams Approach to policy formulation and agenda setting is particularly instructive with engaging with this question of chosen policy approach. It describes policy change occurring due to opportunities presented by the continuous shifts in three key 'streams', the so-called problem stream, the policy stream and the politics stream. In this classic model, 'windows of opportunity' can open when problems arise or are identified, when solutions (policies) are available, and when political will (politics) is sufficient – and those windows allow for stakeholders (and policy entrepreneurs) to drive changes forward (Kingdon 1995).

This paper draws on findings from 26 in-depth interviews conducted in Cambodia in 2015 and 2016 with stakeholders from key health sector organisations, as well as a related documentary analysis. Interviews particularly were structured around thematic questions about evidence use within the Cambodian health sector in general, with additional investigation of recent or important health policy decisions in the country including the GMIS to explore the roles of evidence in specific policy processes.

Policy context and types of evidence used

In many LMICs, PBF is increasingly being used to redress particular aspects of health system underperformance, particularly the productivity and quality of healthcare providers. PBF involves offering incentives intended to redress underperformance, particularly high worker absenteeism, which is frequently observed in poorly funded public health systems with poor accountability (van de Poel, Flores et al. 2016). Support for PBF has spread rapidly in many countries in recent years (van de Poel, Flores et al. 2016). But whilst there is considerable enthusiasm for PBF policies, according to a Cochrane Collaboration review (2012) of pay-for-performance to improve the delivery of health interventions in LMICs, the current evidence base is too weak to draw any general conclusions regarding effectiveness, with more robust and comprehensive study needed (Witter, Fretheim et al. 2012, van de Poel, Flores et al. 2016).

According to van der Poel et al. (2016), Cambodia was the first documented case of a low-income country to experiment with PBF of public health care (van de Poel, Flores et al. 2016). Since 1999, a variety of health programme funding of districts and facilities in Cambodia have been contingent on performance targets or have directly linked revenues to services delivered. The main PBF

programmes implemented have specified performance targets relating to child vaccination, antenatal care, delivery in a public facility, and birth-spacing use (van de Poel, Flores et al. 2016). These funding arrangements have been intended to increase aspects of healthcare provision, and there has been considerable variation in the strength and conditions of the incentives offered (van de Poel, Flores et al. 2016).

The interviewees in this study specifically identified the GMIS as a notable PBF policy, and described it as contributing to reducing Cambodia's high MMR over recent years. When asked about what the evidence was that contributed to the choice of this GMIS policy, there was discussion of factors such as that midwives are not sufficiently paid, or sufficiently skilled and trained. There was also mention of the high MMR and infant mortality rate, and the need to address the millennium development goal. These responses illustrate the diversity of evidence types typically held to be relevant for informing policy, many of which sit outside classic 'hierarchies' of evidence at times promoted as useful to guide policy development. However, authors have critiqued reliance on single hierarchies of evidence which typically are based around measures of technical quality as necessarily relevant to policy decisions (Petticrew and Roberts 2003), with calls to consider what is 'appropriate' evidence for policy, given the needs and contexts of the actual decision (Parkhurst and Abeysinghe 2015, Parkhurst 2017).

One respondent further suggested that the scheme was based on pilot studies that were likely trialled in this health area (although the respondent was unaware of any specific pilots). There was also considerable discussion of that at times policy directives come from high levels of the MOH and above, and that in such situations evidence is perceived to be unimportant.

As noted in interviews with three representatives of donor agencies:

"We don't know who is [behind the implementation of the GMIS] ... who can influence to make this decision." (CAM-17, May 2016)

"They question where the midwifery incentive came from... seems to be coming out of nowhere... PM's wife is a midwife... that could be explain some interest in the topic... USAID and JICA were the two leads in maternal health..., but the midwifery programme has never been funded by the donors..." (CAM-13, August 2014).

We don't even know who made it. There's a re-writing of history that claims the MOH thought about it but there was no evidence. I was here right after it started and know many people here when it started. At the time [unintelligible 0:49:52.6], so it came out of GMEF, Government Ministry of Economy and Finance. It was actually hugely successful. It's now used as evidence in other countries, so this is good idea. (CAM-15, May 2017)

I'll tell you, this is really interesting. If that wasn't donor influenced. That was the new minister, he's still there [unintelligible 0:29:37.9] went off and thought about it. I don't think he talked to UNICEF or WHO and he came up with this idea and he sold it [unintelligible 0:29:50.2] and he told Ministry of Economy and Finance money is made available, it's the only incentive that is on budget for the government and when this came out WHO, UNICEF and UNFPO well that's not going to work and [unintelligible 0:30:06.3] I was really surprised. They didn't tell anybody, but they can be really proud, they thought it up themselves, it's as super as anything. It goes through the government budget and we've seen institutional deliveries go from 20 per cent to sort of 85 per cent and maternal mortality coming down from 470 to 170 in ten years. That's almost unheard of. (CAM-15, May 2017)

Thus, whilst pilot studies of the policy may have been undertaken, the policy decision appears to overall lack an evidence base, and appears to have been a political decision made from the highest levels of government.

Yet while skilled birth attendance is a central feature of most global calls to reduce maternal mortality (Campbell, Graham et al. 2006, Koblinsky, Matthew et al. 2006), there are still a number of different potential ways to achieve birth attendance in attempts to reduce maternal mortality. Classically maternal death has been described as a result of three delays – delays in seeking care, delays in reaching a care facility, and delays in receiving appropriate care once at a facility (Thaddeus and Maine 1994). From this conceptualisation, numerous efforts have been attempted to target one or more of these delays – targeting women, health care providers, ambulance services, or broader health systems improvements; and one recent systematic review of maternal health interventions in resource-limited settings concluded that “[p]rograms integrating multiple interventions were more likely to have significant positive impacts on maternal outcomes (p. 1)” (Nyamtema, Urassa et al. 2011). This history of thinking and practice in the global maternal health effort thus raises the question of why Cambodian government officials specifically chose an incentives-based approach to reducing MMR, rather than other alternatives or packages of interventions.

To answer this, we find John Kingdon’s Policy Streams model of policy change to be particularly helpful. Interviews conducted in Cambodia easily reflected a situation of convergence of Kingdon’s three ‘streams’. In particular the persistently high MMR was an identified problem, the global prioritisation of the issue as evidenced by MDG5 reflected political attention, and a policy relevant and locally accepted solution was seen in GMIS. The use of evidence, however, appeared more to follow from the choice of solution, rather than a process of review that might identify solutions from all available. We will discuss each of the three streams further below:

The problem

The MMR in 2000 and 2005, at 484 and 315 deaths per 100,000 live births, was high by international standards, and MMR is a highly visible problem and one that cuts deep in those affected. As some of our respondents described.

“No the thing was with this MDGs actually they ... Cambodia was a bit ashamed because it's the first demographic and health survey in 2000 and there was already a bleak picture and then the second came out and the situation worsened, so it became worst actually so it's a another document that describes the pros behind that one, I'll send you. [so it was more about wanting to reach the MDGs] and save face because first they were trying to hide it and then some professor took it up to the Vice Prime Minister and that's how they all [unintelligible 00:36:18] stuff by the [unintelligible 00:36:19]. It was mainly to save face.” (CAM-25, May 2016)

The politics

Prior to the introduction of the GMIS, the issue of maternal mortality had received global prioritisation in the form of MDG5, and the target for achievement of this was 2015. Thus, in 2007 when the GMIS was implemented, achieving this target would have been at the forefront of health issues to be addressed, as suggested by the respondent in the previous quote, resulting in considerable prioritisation of the issue of the political agenda.

The policy (solution)

The GMIS is one of a myriad of possible solutions to this problem of maternal mortality. There are however several reasons why this particular policy solution may have been chosen. First, as a

solution that doesn't require radical health system change, it would have been (relatively) simple to implement, without causing undue tension or resistance in the way that a more radical change in a health system would. Related to this, by targeting low-level underpaid staff, it would not have upset high-level civil servants with more power. As Ir (2010) reported in relation to the implementation of a health equity funds scheme in Cambodia, "HEF does not seem to harm anybody's interest" (Ir, Bigdeli et al. 2010). Second, as was also recognised by Ir et al. (2010) in their paper (Ir, Bigdeli et al. 2010), it's a way for donors to transfer funds to the poor, and for the mobilisation of additional funds to the health sector. Third, it appears to fit with a "politics of gifts" that has been described by Hughes (2006) as a part of Cambodian culture or expectations (Hughes 2006).

As noted by a respondent from the Ministry of Economy and Finance:

"We cannot increase salaries, as other sectors of societies would want to have increase as well... But we give incentives, based on performance.... Education, custom incentives were done earlier... then in health, the midwifery incentive came later.... There are also incentives paid by the government to technical officers and government staff... then, we can top up our salaries with extra funding from projects with international partners... My salary is minimal, but I can earn much extra funding..." (CAM-14, August 2014)

As noted by a representative from a donor agency:

"A few years ago there was a policy to put one midwife in each HC and the midwifery incentive... Hun Sen acted on this, and the policy was implemented immediately and very efficiently... the trigger was the DHS...it had quite a bit of impact, and there was a lot of pressure from the international community... and [it] was relatively a 'easy fix', a simple solution... DHS is absolutely the most important piece of evidence for health policy in Cambodia... it is a key survey... the 2014 is in the making and the gov is very keen to see the figure about maternal health..." (CAM-12, August 2014)

As noted by a respondent from the Ministry of Economy and Finance:

"I think it is feasible, it doesn't take a big chunk of our budget. It is effective and the money has been spent in the right direction." (CAM-14, August 2014)

Discussion

Reflecting on these three 'streams' of the Kingdon approach to policy formulation and agenda setting, the GMIS appears to reflect a combination of political interest and local context, and a politically palatable solution. The use of evidence, thus, appears to have followed from this policy window, with a few different types of evidence relevant to the proposed policy situation mentioned by respondents as potentially important. This makes political sense in the local context, yet it stands in contrast to much literature calling for 'evidence-based' or 'evidence-informed' policymaking, which has often presented 'politics' as a 'barrier' to evidence 'use' (Oliver, Lorenc et al. 2014, Parkhurst 2017). Such views typically assume evidence will be used within a problem-solving process which would, in this area, theoretically start with the problem of the MMR, continue to a review of all available intervention evidence, and selects the most cost-effective and/or efficacious regardless of other political structures, needs, or demands. This depoliticised view of the role of evidence in policymaking has been critiqued by a number of policy scholars as an over-simplified and over-technocratic view of policy formulation (Russell, Greenhalg et al. 2008, Liverani, Hawkins et al. 2013, Cairney 2015).

It is worth noting that although the introduction of the GMIS has been accompanied by improvements in the percentage of deliveries in public health facilities and falls in the national maternal mortality ratio, care is needed with interpretation of such evidence and evaluations of impact. First, these are observational correlations, and thus not necessarily causal given the number of other factors that could influence changes in maternal outcomes, with other contributing health system improvements and wider societal changes in Cambodia documented by others (Liljestrand and Sambath 2012, Dingle, Powell-Jackson et al. 2013). Second, with regard to evaluations of PBF schemes more generally, a number of evaluations of PBF schemes such as the GMIS have been undertaken, and PBF policies have been credited with developments including increasing utilisation by the poor, decreasing total family per capita health expenditure and encouraging better management (Eldridge and Palmer 2009) – but there are still known challenges in causal attribution for such programmes, as they are often implemented alongside other health sector reforms including the introduction of higher official user fees, as was the case in Cambodia (Soeters and Griffiths 2003). One of our respondents commented that the quality of evaluations undertaken is often poor in the country, further challenging drawing clear conclusions.

Regardless of the causal impact of this specific maternal health intervention, however, the policy decision to implement the GMIS does not seem to be one that could be described as fitting an 'evidence based' model typically explicitly described or implicitly assumed in much of the evidence use literature, given that the policy solution was not selected or driven by any rigorous or systematic review of empirical evidence and other alternatives as evidence champions often advocate. Rather we found the use of evidence to fit within a policy process featuring multiple needs and concerns, typical of Kingdon's model, to describe the convergence of a clearly identified problem with political will and a solution acceptable within the parameters of the particular policy-making context. Such an example points to the need for further empirical work, particularly in LMIC settings, that can describe and evaluate theories of the use of evidence to inform policy in ways that are explicitly driven by accurate models of the policy process rather than idealised, but unrealistic, models of evidence use for policymaking.

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