Learning from failure?

Political expediency, evidence, and inaction in global maternal health

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A key challenge in maternal health today is the incongruity between 'successes,' invariably reported at discrete program level, and the collective lack of progress in global maternal mortality rates. Evaluations of large numbers of maternal health projects, worth billions of dollars, consistently suggest a preponderance of successful interventions.[1,2,3,4,5] Yet, 69 out of 75 high burden countries failed to achieve their MDG-5 targets.[6,7] Globally, the 44% reduction in maternal mortality rate from 1990 and 2015, while not insignificant, also fell short of its 75% target. Programs are an important element of maternal health service delivery, and while they may not be the only factor responsible for reducing maternal mortality (falling fertility rates, improving education and reducing poverty also play significant roles), they draw upon considerable resources. When programs do not achieve their intended impact, they represent lost opportunities.

Disconnects between discrete program successes and overall failure to reduce maternal mortality may be explained by a number of factors.[8,9] Many programs lack an explicit and credible program theory describing how the effort is expected to produce the population health effect. [10] Interventions that are deemed successful in one setting are often replicated elsewhere, without taking into account contextual specificities.[11] Or, we suggest, the positive assessments of maternal health program performance may be flawed and deserve closer scrutiny. Indeed, other authors have alluded to simplistically defined indicators of success,[12,13] and production of bad or "fudged" data.[14]

It is well recognized that the global aid architecture is built on a foundation of political and economic objectives which may or may not align with the true health, and social needs of recipient countries.[15,16,17] Many programs have unarticulated, implicit goals alongside their explicit population health ones.[6] These include, but are not limited to, maintaining positive relationships between donors and recipient governments, keeping money flowing, and maintaining the appearance of success.[10] While implicit goals cannot always be avoided, in some cases they may be more heavily regarded, by program funders and implementers, than the explicit health goals.[10] Here, we wish to document an experience which sheds light on the central role of these implicit goals, and how when not fully consonant with more explicit program goals, become barriers to effectiveness. We also highlight how the current structures of the international aid industry create perverse incentives to hide learning that could potentially improve interventional approaches.

Our aim is not to defame or devalue the work or intentions of any organization. Rather, we wish to highlight existing challenges in documenting and addressing programmatic deficiencies in maternal health, and learning from failure. We also raise some deeper questions in relation to the current business of aid.

The Story

With the objective of providing care to vulnerable *rural* women, a population that has remained largely outside the scope of standard maternal health services, the Government of Pakistan introduced Community Midwives (CMWs), a new cadre of skilled birth attendants. The program sought to recruit and offer 18 months of midwifery training to young women with 10 years of schooling, who resided in specific rural areas. The Government did not employ these trained CMWs, but rather anticipated they

would return back to their home villages and establish home-based, private practices that also provided domiciliary maternity care. The program was designed with the expectation that each CMW would be recruited from one union council to serve a population of 10,000.[18] A union council is the smallest administrative unit in rural areas. Since 2007, over 8,000 CMWs have been trained.[19]

Emerging evidence suggests that CMWs have yet to develop into significant providers, with only 1-3% of rural women reporting use of their care in most areas.[20,21] To support these existing government recruited and trained, but private sector midwives, to become high quality, sustainable providers, an international NGO, funded by a major donor, developed an intervention aimed at providing micro-loans and business skills to 90 CMWs selected from three districts - Quetta, Gwader and Kech,- in Baluchistan province. Demand for CMW services was to be generated through an awareness-building campaign using cellular phone SMS technology, and women's support groups. Further, access to emergency transport services was to be established by developing a community-managed transport fund. Appreciating the importance of incorporating research in programs at the point of design and implementation,[22,23] the funding agency and NGO commissioned us to conduct operations research embedded with the NGO initiative (henceforth referred as "*Saving Mothers*") to assess: 1) whether these micro-loans enabled CMWs to become financially sustainable, effective maternity care providers; 2) whether there was an improvement in the coverage of maternal care services in program catchment areas; and 3) whether an increase in uptake of CMW care could be attributed to the NGO's intervention.

The operations research utilized a cluster quasi-experimental study design. Two out of the three "*Saving Mothers"* project districts, Quetta and Gwader), were purposively chosen for the evaluation. A cluster was defined as a CMW and her catchment population. We estimated a sample size of 1,520 women in 52 CMW clusters (26 intervention and 26 control) would be required to detect a 10%

difference in coverage between intervention and control clusters (with 90% power and α =0.05). To collect baseline data, two-stage stratified random sampling was done. We assumed we would find equal numbers of CMWs in both districts, but in reality, out of a total of 90 CMWs listed in the two districts, 75 were in Quetta and 15 were in Gwader. Stratifying at the district level and using 1:1 ratio, all 7 intervention CMWs and 7 controls (total 14) were selected from Gwader. To achieve the estimated sample size of 52, 38 CMWs (19 intervention and 19 control) were selected from Quetta. Within each district, intervention CMWs were randomly selected from the list of CMWs enrolled in the "*Saving Mothers"* project, and controls were selected from the Government CMW database. Another element of program design not met in reality was well-defined CMW-catchment areas. To rectify this, we first defined CMW's catchment areas using their addresses (and presumed location of home-practice). Within these catchment areas, a random sample of 1,521 women who had given birth in past two years were interviewed using a pre-tested questionnaire. The findings were unexpected. In Quetta district, 85% of respondents reported skilled birth attendance: 72% by a physician, 13% by a non-physician skilled birth attendant, and only 0.2% by a CMW. In Gwader district, 91% of respondents reported skilled birth attendance: 57% physicians, 33% non-physician skilled birth attendant and 1.5% CMW. These rates are in stark contrast to the provincial skilled birth attendance rate of just 18% (14% in rural and 34% in urban areas).[24]

To further understand these data, we geographically mapped all CMWs by their home addresses, using the Government's CMW database. As illustrated by a representation in Google Maps (Figures 1 and 2), not only were the majority of CMWs located in district Quetta, but they were concentrated in one urban area, Quetta City. This provincial capital of estimated 1.2 million, is served by 362 public and private health facilities,[25] including major teaching and military hospitals. It became apparent that almost all midwives who had been trained as part of the Government's Community

Midwife Program to provide rural care, were in fact urban women, often located within higher socio-economic neighbourhoods. The situation proved similar for the 15 CMWs in Gwader district.

Further analysis and conversations with government personnel and frontline staff of the NGO suggested the urban concentration of CMWs in Baluchistan was well known, and was, in part, a consequence of the midwifery program's education pre-requisite of 10 years, a level of schooling uncommon in rural women. The candidates for the Government's CMW program were also largely recruited through social networks of urban, upper-income people already involved in the program, a practice which has been well documented in literature from Pakistan.[26] According to one senior program manager in the province, over 90% of CMWs were recruited through such nepotistic practices.

These findings were shared with the implementing NGO. Given the early stage of intervention roll-out, we advised a reassessment of intervention design. The problem of the urban concentration of health workers is not unique, and in this case was the result of local patterns of inequities, whereby resources of all kinds, including female education and income generating opportunities, are often channelled to advantaged sections of the population. We advised our NGO partners that CMWs' urban location would place them in direct market competition with a range of existing government, teaching, and military hospitals, and well-established non-physician skilled birth attendants. In fact, this market competition was already occurring. The urban-based CMWs were not working, best indicated by our survey finding that CMWs attended only 0.2% of births in Quetta and 1.5% in Gwader. Even if some could establish viable practices with help from the "*Saving Mothers"* initiative, the geographic and social location of CMWs made it unlikely that their practices would result in improved access to maternity care for vulnerable *rural* women, the stated target of the project. In effect, the design and implementation of the "*Saving Mothers"* project was reinforcing the already problematic urban/rural maternal health care inequities in the region.

The implementing agency (with donor agreement) responded by terminating our contract and the operations research. At the time of writing, the "*Saving Mothers*" project was proceeding according to the original intervention plan. Conversations with colleagues working in similar international NGOs have suggested that such behaviour is not unusual; that challenges facing projects are often ignored and/or hidden.[6] For example, during the session entitled "*FAIL: First Attempt in Learning – Learning from What doesn't Work in Maternal and Newborn Health*" at the 2015 Global Maternal Health Conference in Mexico, a resounding majority of the audience admitted to programmatic failures.[27] However, when asked who had shared these failures with their funders, all hands went down. Clearly, despite widespread acknowledgement of the importance of "learning from failure", when push comes to shove it appears nothing more than rhetoric.

We believe our experience aligns closely with Hodgins and colleagues' analysis of why programs fail to improve population level health indicators.[10] It also aligns with Panter-Brick et al.'s assertion that the Global Health community has 'broken faith' with its 'core ethical mandate to address the root causes of poor health outcomes'[28] and Hawe's contention that the field has fallen prey to developing conservative, simplistic, and negligent interventions that remain well short of delivering broad reaching and sustainable outcomes.[29] The Cape Town Statement from the Third Global Symposium on Health Systems Research and a recent editorial in the WHO Bulletin have called for more embedded research, starting from the stage of program planning, wherein research that is, "conducted in partnership with policy-makers and implementers, integrated in different health system settings and that takes into account context-specific factors can ensure greater relevance in policy priority-setting and decision-making."[18] In our experience, despite rhetoric calling for closer collaboration, when tasked to explore such interventions, researchers often face prohibitive challenges to their work, and see their findings set aside or debated. This is particularly likely when researchers' findings critically illuminate the failures

inherent to poorly designed initiatives, or are suggestive of poor implementation. Contrary to the stated goals of NGOs and development funding organizations to improve the health of vulnerable populations, rejecting unwelcome results and continuing to follow poorly chosen program strategies serves to reinforce the status quo, and further entrench determinants of poor health.

All this leads us to raise some bigger questions:

1) How can we ensure our interventions reach those most in need - the voiceless, powerless, and marginalized? How can we ensure that the powerful – the local elite, international NGO's and donors - do not hijack well intentioned, often tax-payer funded, interventions? In our case, the key force derailing the project was the unsuitable recruitment of urban, relatively wealthy women to be trained as midwives. While this was a local problem, the NGO program designers were apparently not aware of it. When informed, all stakeholders (funders, international NGO's) chose to ignore the information for distinct reasons of self-interest, thereby severely hindering the project's goal of improving maternal health of poor rural women. How can we ensure that the interests of the powerful do not take precedence over improving program design and functioning for those who are most in need of healthcare?

2) How can we strengthen accountability structures governing maternal global health practice – at every rung of the ladder, from donors/funders, implementing agencies, and researchers, to local governments? Notwithstanding the rhetoric of 'ensuring research is embedded in programs,' there clearly remains in global public health, an unwillingness to accept, let alone act on, evidence that disrupts preconceived expectations or challenges insubstantial explanations of interventions and their outcomes.[17] Moreover, powerful decision-makers are not currently held to account. This further reduces the ability of independent researchers and lower-ranked public

health personnel to speak back against system insufficiencies, inappropriateness, or even mismanagement.

3) How can we encourage better practices for identifying, reporting, and addressing context-specific programmatic challenges in on-going and future initiatives? In this particular case, the program developers failed to recognize or incorporate local social pressures and political practices that had the potential to confound success. Instead, shortcomings were ignored, primarily because the current global funding architecture rewards success, and failures are viewed as threats to program funding, employment, and institutional sustainability. Funders are often also complicit in the obfuscation of problematic results for acknowledging program failure risks being seen as evidence of their 'poor' judgement. Researchers and publishers also contribute to this illusion of success, when they are unwilling to publish negative results. All these actions (and inactions) serve to hamper genuine program improvement and success.

These questions suggest the need for a more systematic and thorough exploration of the current practice of global maternal health, a sharper focus on core values, and demand a deeper accountability from all stakeholders. We must remain vigilantly aware that the key stakeholders in the global maternal health industry - poor women in some of the poorest countries in the world – remain voiceless. A reversal in the current disconnect between discreet program successes and overall failure to provide safe childbirth care demands strong leadership, rising above organizational rivalries, and resisting the current domination of elites. Within this renewal, a commitment to truly "learning from failure," is not only encouraged, but essential.

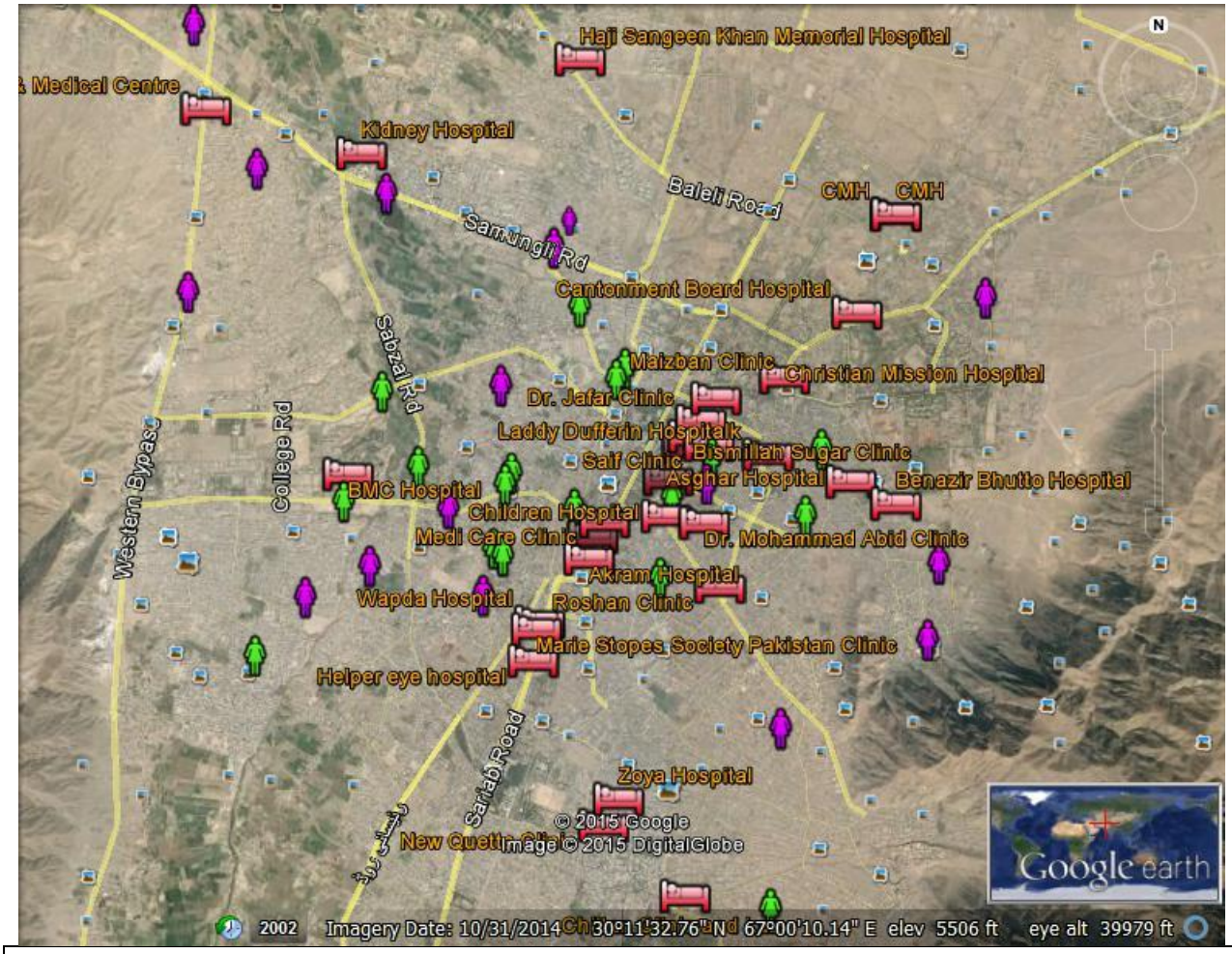
Conflict of Interest

The authors have no conflicts of interest to declare.

Keywords

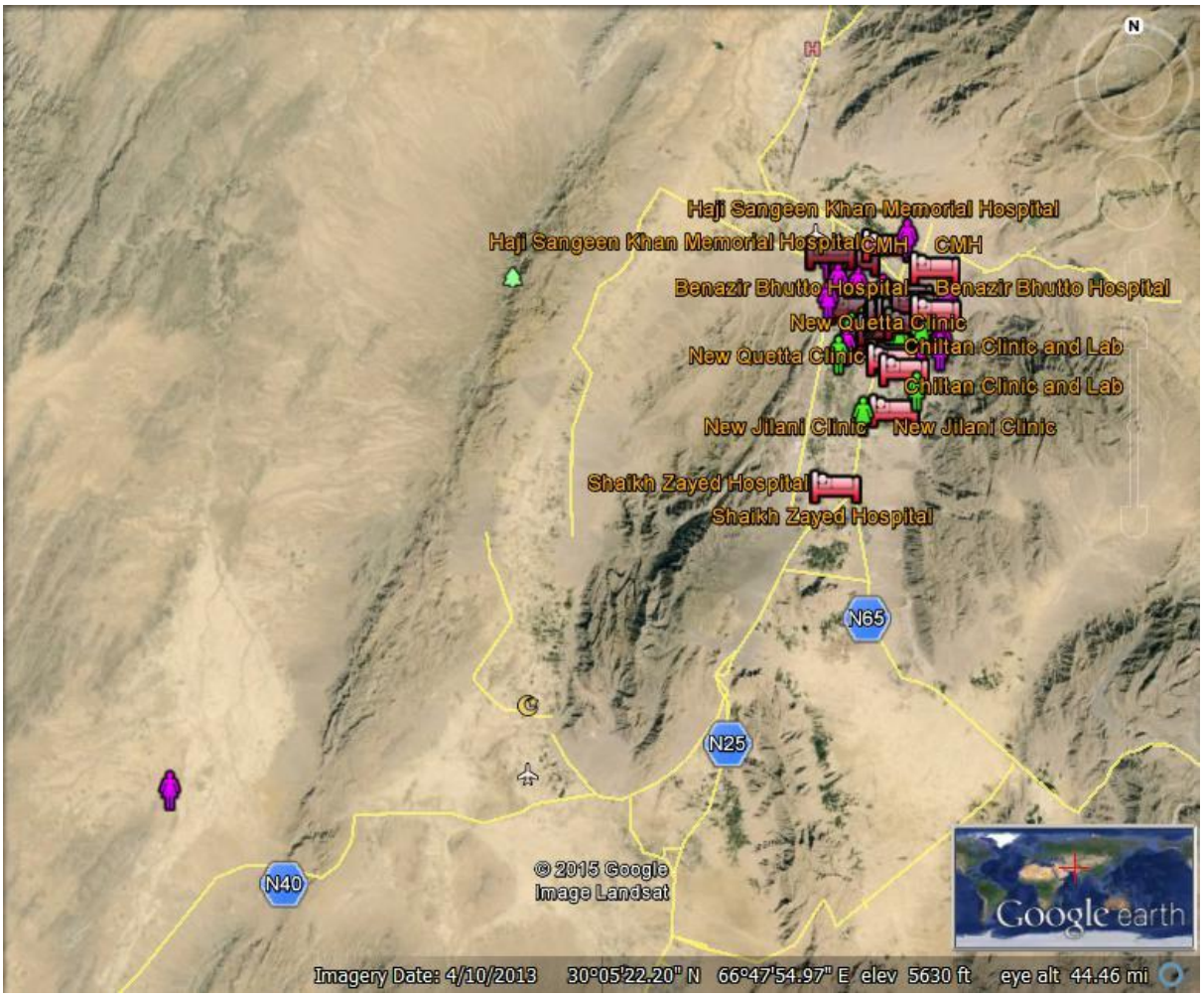
Evidence-based decision making, maternal health, inequities, accountability, programs, embedded research, Pakistan

Figure 1: Google map of Quetta illustrating intervention-and control CMWs and health facilities



Key:
* Green figures: Control CMWs
* Purple figures: Intervention CMWs

Figure 2: Zoomed out map of Fig 1.



245
246
247 **REFERENCES**

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