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Paul H. Wise & Gary L. Darmstadt

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Confronting stillbirths and newborn deaths in areas of conflict and political instability: a neglected global imperative

Paul H. Wise, Gary L. Darmstadt

Division of Neonatology and Developmental Medicine, Department of Pediatrics, Stanford University School of Medicine and the Freeman Spogli Institute for International Studies, Stanford University, Stanford, California, USA

Background: Despite considerable improvements in reproductive and newborn health throughout the world, relatively poor outcomes persist in areas plagued by conflict or political instability.

Objectives: To assess the contribution of areas of conflict and instability to global patterns of stillbirths and newborn deaths and to identify opportunities for effective intervention in these areas.

Methods: Analysis of the available data on stillbirths and neonatal mortality in association with conflict and governance indicators, and review of epidemiological and political literature pertaining to the provision of health and public services in areas of conflict and instability.

Results: Of the 15 countries with the highest neonatal mortality rates in the world, 14 are characterized by chronic conflict or political instability. If India and China are excluded, countries experiencing chronic conflict or political instability account for approximately 42% of all neonatal deaths worldwide. Efforts to address adverse reproductive and newborn outcomes in these areas must adapt recommended intervention protocols to the special security and governance conditions associated with unstable political environment.

Conclusion: Despite troubling relative and absolute indicators, the special requirements of improving reproductive and neonatal outcomes in areas affected by conflict and political instability have not received adequate attention. New integrated political and technical strategies will be required. This should include moving beyond traditional approaches concerned with complex humanitarian emergencies. Rather, global efforts must be based on a deeper understanding of the specific governance requirements associated with protracted and widespread health requirements. A focus on women's roles, regional strategies which take advantage of relative stability and governance capacity in neighbouring states, virtual infrastructure, and assistance regimens directed specifically to unstable areas may prove useful.

Keywords: Stillbirths, Neonatal mortality, Governance, Civil conflict

Introduction

After years of neglect, newborn health is now widely recognized as a critical component of any meaningful maternal and child health programme. A series of important agenda-setting initiatives have drawn much-needed attention to the special requirements of improving newborn health.¹⁻⁴ Donor commitments to this arena of care have also expanded significantly over the past decade.⁵ The Every Newborn Action Plan⁶ provides an important framework for this continued commitment as well as the technical guidance required for the

development and expansion of effective intervention programmes.

However, despite this record of accomplishment, neonatal mortality (deaths of live-born children at less than 28 completed days after birth) remains a central challenge that accounts for almost 3 million deaths annually and represents nearly half (44%) of all under-5 child deaths globally.⁷ In addition, stillbirths (defined by the World Health Organization as a fetal death at gestational age ≥ 28 weeks or at a birthweight of ≥ 1000 g) also continue to occur at tragically high rates.⁸ Some 2.6 million pregnancies end in a stillbirth annually, almost half occurring during labour and delivery. Indeed, recent progress in reducing neonatal mortality and stillbirths has been far slower than that documented for mortality among children aged 1-59 months.

Correspondence to: P H Wise, Freeman-Spogli Institute for International Studies, Stanford University, CHP/PCOR, 117 Encina Commons, Room 226, Stanford, CA 94304-6019, USA. Fax: +650 723 1919; email: pwise@stanford.edu

In addition, a detailed understanding of the epidemiology of neonatal mortality and stillbirths globally has been made more difficult by a longstanding failure to capture accurately data on these reproductive losses in standardized reporting systems, intermittent surveys and global estimates of disease burdens. In this manner, the Every Newborn Action Plan and related activities have the potential to generate a newfound urgency to identify the detailed aetiologies of stillbirths and neonatal mortality as well as to confront the functional obstacles to successful implementation of initiatives designed to address these adverse outcomes.

The Challenge

Close examination of the geography of stillbirths and neonatal deaths provides some important clues as to the obstacles to and opportunities for continued progress. Of the 15 countries with the highest neonatal mortality rates in the world, all but Lesotho have been plagued by chronic civil conflict and political instability. Of the nine countries which account for the highest absolute numbers of neonatal deaths in the world, four (Nigeria, Pakistan, the Democratic Republic of Congo, and Angola) are similarly characterized by political instability and poor governance.⁴ (Table 1). India and China contribute heavily, given their very large populations. However, if one excludes China and India from this list, countries characterized by conflict and political instability account for 42% of the total number of neonatal deaths in all other countries of the world combined.⁷

A number of recent reports have identified critical obstacles and bottlenecks in the delivery of essential reproductive, maternal, newborn and child health (RMNCH) services.^{4,9} However, none has identified

Table 1 Births, neonatal mortality rates, and number of neonatal deaths for countries with the highest neonatal mortality rates in the world⁷

	Births (1000s)	Neonatal mortality rate/1000 live births	No. of neonatal deaths (1000s)
Angola	949	47	43
Somalia	461	46	21
Guinea-Bissau	64	44	3
Lesotho	68	44	3
Sierra Leone	223	44	9
Central African Rep	162	43	7
Pakistan	4619	42	194
Chad	590	40	23
Mali	700	40	28
South Sudan	406	39	16
Zimbabwe	436	39	17
Cote d'Ivoire	745	38	28
Dem Republic of Congo	2889	38	105
Nigeria	7173	37	262
Afghanistan	1042	36	37

the special requirements of developing policies or implementing programmes in areas of frank insecurity and inadequate governance as issues worthy of specific study or concern. This might reflect the fact that maternal and child health is but one focal area of global health and that the generic issues of operating in complex political environments are thought to be better addressed in other forums or by other disciplines. Indeed, the traditional domain of health service provision in unstable parts of the world has been that of 'complex humanitarian emergencies' and has largely focused on addressing the acute housing, nutritional, water and sanitation, and health needs of displaced or refugee populations. While recent advances in this important arena of global health have been substantial, they do not speak directly to the challenges confronting RMNCH agendas which must address large, often dispersed populations over considerable lengths of time.

The goal of this article is to underscore the importance of conflict and political instability in meeting the global challenge of reducing adverse reproductive and newborn outcomes. Current approaches to improving RMNCH outcomes are largely inattentive to the special requirements of operating effectively in these areas. New strategies must be developed that will not only respond to the technical guidance emerging from the maternal and child health community but also to the insights derived from disciplines long concerned with building security and political legitimacy and providing public goods in areas of conflict and limited statehood.

The Great Divergence

In some measure, the lack of current attention to the special health needs of unstable areas is because during the 1970s and 1980s most low-income areas of the world were experiencing very high rates of maternal and child mortality and policy and technical recommendations to address these issues were felt to be widely applicable. However, over the past decade many countries, particularly those with relatively stable political environments, have made substantial progress in reducing maternal and child mortality while others, particularly those plagued by conflict and political instability, have fallen behind.⁴ While the aspirational projection of a 'great convergence'¹⁰ in mortality may prove prescient for many previously low- and middle-income countries, a closer look at reproductive and neonatal outcome trends suggests a more troubling picture: a 'great divergence', defined by political stability and the quality of governance. The danger lies in permitting these divergent paths to continue unabated. The special challenges of working

effectively in politically unstable environments must be confronted and new, integrated technical and political strategies implemented.

Moving Beyond Complex Humanitarian Emergencies

Health service provision in politically contested areas has largely been addressed by disciplines focused on disaster relief and complex humanitarian emergencies. Often, these efforts are concentrated in specially designated areas, such as refugee camps, where security and logistical support can be best guaranteed. However, much of the impact of conflict and political instability is experienced outside organized camps and affect large populations of internally displaced persons and communities who have nowhere else to go.^{11,12} In most instances, the number and mortality rates of affected persons living outside formal camp settings dwarf those of people living in such camps. Moreover, many of the most destructive conflicts affecting reproductive and neonatal mortality have been protracted conflicts, some lasting decades with only intermittent periods of relative quiet. In southern Sudan, for example, fighting has been going on since the early 1980s with recent intensification since the establishment of South Sudan in 2005. Similarly, conflict has plagued the Democratic Republic of Congo since the mid-1990s, particularly in the eastern Kivu provinces. It is not surprising, therefore, that in camps run by the United Nations High Commissioner for Refugees (UNHCR), the average length of stay is approaching 20 years.¹³ Together, the scale and duration of the world's conflicts have rendered current global strategies to improve health in these regions worthy of urgent and comprehensive reconsideration. This assessment seems particularly acute for reproductive and newborn outcomes, two arenas of health that are especially vulnerable to protracted violence and political instability. Reproductive and infant outcomes have always been especially sensitive to social forces, and the failure to provide highly efficacious health interventions in pregnancy, labour and delivery and early infancy only adds to the toll exacted by poor governance and instability.

The Political Nature of Newborn Health in Areas of Conflict and Instability

Clearly, the provision of high-quality, reproductive and neonatal health services in areas of active, intensive combat is extremely difficult. It is a mistake, however, to consider all areas of conflict and political instability as ungoverned spaces where anarchy and violence prevail. Indeed, the provision of health and other public goods is possible even when confronted by adverse security conditions

and fragile governance institutions.^{14,15} For example, anti-retroviral medications have been successfully delivered to large populations in the central plateau of Haiti; children in central Somalia are being immunized and receiving bed-nets; and maternal-to-child transmission of HIV infection has been dramatically reduced in Zimbabwe. The message from these reports is that even in areas of poor governance and political instability – in states labelled 'failed' or 'failing' – effective services can be provided. The challenge lies in identifying and addressing the security and political requirements that will allow large-scale implementation of essential reproductive and neonatal services in areas which remain relatively untouched by current strategies.

The strength of a state has been defined in a variety of ways. For the purposes of assessing the environment for the provision of public goods, it is most useful to consider two related capacities: the monopoly over the means of violence and the ability of the state to make and implement laws and policies.^{14,16} In most reports recommending policies and programmes to improve reproductive and neonatal health, the state has been portrayed as a functional entity, primarily defined by the parameters of international sovereignty. This is not surprising as many of these reports have rightly involved agencies and representatives of UN organizations which must respond to member states regardless of their capacities or legitimacy. However, while international sovereignty may serve deliberations at international meetings, domestic sovereignty, the capacity of the state to control violence and implement policies equitably within its own borders, usually plays a larger role in shaping the provision of essential human services.

It makes little sense to design health interventions, capacity-building and monitoring programmes as if profound variations in domestic sovereignty did not exist. While there is widespread recognition that logistical characteristics such as inadequate roads, material health infrastructure and deficient electrical grids are important barriers to delivering high-quality health services, it must also be recognized that in many parts of the world it is political characteristics that present the most profound and pervasive obstacles to service provision. Often covering the 'last mile' of health service delivery depends fundamentally on navigating the inadequate or corrupt infrastructure of local governance.

Operating in areas of conflict and political instability often involves non-state actors, such as non-governmental organizations (NGOs) or multi-lateral aid organizations such as UNHCR or the United Nations Children's Fund (UNICEF). While involvement of non-state bodies can be essential to an

effective delivery system, it also adds a level of complexity to health programmes, particularly when such bodies become the primary vehicle for providing services on the ground. Of special concern is the effect this role can have on the capacity and, at times, the legitimacy of the state. Most global health agendas, including those concerned with reproductive and neonatal health, stipulate the importance of securing the active support of host governments, both in recognising international sovereignty protocols and strengthening state service delivery capacity. However, in countries experiencing conflict and political instability, the weak domestic sovereignty capabilities may lead donors to rely heavily if not totally on non-state actors. Regardless of the extent of this reliance, the use of non-state actors will almost always have political consequences, some of which may influence the ultimate impact and sustainability of the programmes in question. Recent work in the political sciences suggests that explicit consideration of the health intervention's political legitimacy as well as its interaction with formal and informal local institutions will be crucial in determining the success of the programme and its impact on the capacities of the state.^{14,17}

Donor policies must also respond to urgent health needs in areas of conflict and political instability. It is understandable that donors would tend to fund programmes with a high probability of success, in areas with good accounting practices, and which develop strong collaborations with capable national ministries. However, confining financial support to programmes that meet these criteria clearly excludes many parts of the world with major reproductive and newborn health challenges. In addition, the explicit objective of requiring host governments to take responsibility for the development of strong applications for funding has also meant that areas of limited statehood are far more likely to be excluded from donor support, despite their desperate need.¹⁸ Several major donor programmes including the President's Emergency Plan for AIDS Relief (PEPFAR) and the Global Fund for AIDS, Tuberculosis and Malaria are attempting to rectify this traditional approach. This in turn only underscores the need for new implementation strategies capable of delivering services in complex political environments.

When Health Becomes Political

There has been a longstanding impulse to represent health services as politically neutral. This neutrality has been rooted in the humanitarian nature of health services and the professional commitment of health providers to serve all in need. This neutrality has also been seen as an essential protection for health workers, an issue of special salience in view of the increasing number of attacks on health workers in politically unstable parts of the world.¹⁹

Health providers may indeed be neutral but the impact of their work is rarely apolitical. While the protection of health workers is a fundamental principle that must be supported without conditions, claims of neutrality may not reflect the actual nuanced, political reality of health service provision in areas of conflict. The transformation of a health service, an inherently technical capacity, into the currency of political contestation will depend upon two conditions being met. First, there needs to be a general perception that the service is effective in reducing the risk of disability and death from a serious threat. Second, there must be a general perception that the provision of this service is, in some manner, the responsibility of the state. Under these conditions, failure to provide the service will tend to undermine the political legitimacy of the state; on the other hand, when the state provides the service, its political legitimacy will be enhanced. In this way, health services become currency in determining what is often called performance or 'output' legitimacy.²⁰ It should be no surprise, therefore, that when health services – regardless of whether provided by an arm of the state or an NGO – are perceived to be a mechanism for enhancing state legitimacy or local authority, they may become vulnerable to assault by opposing forces. Conversely, such attacks on what local populations perceive to be a valued service may undermine the political legitimacy of the forces opposing the state. There are numerous examples of such a negotiated process, including the relative reluctance of Taliban fighters to attack local health clinics, even those constructed by US forces or supported by NGOs. However, there are also too many counter-examples in which the calculus of political legitimacy has put health workers at risk of politically motivated violence, as is being played out in the continued tragedy of Pakistan's polio immunization programmes. Health workers are at physical risk when they work in proximity to combat. However, when their work speaks to questions of political legitimacy, they may become explicit targets. It is, therefore, essential for large-scale health services operating in regions of instability to formally assess the political dynamics of the area and recognize that claims of neutrality are unlikely to ensure safety and programmatic success; rather, a deep understanding of local political tensions and a pragmatic willingness to address them will be necessary.

An Integrated Technical and Political Agenda

There is strong evidence that a variety of health interventions are highly effective in reducing stillbirths and neonatal deaths in low- and middle-income countries.^{1,4,21,22} These interventions can occur during all temporal phases of reproduction, including

the pre-conceptual, ante-natal, intra-partum and post-natal periods. Interventions with appreciable efficacy should be provided to every woman, newborn and child in need, regardless of where or under what political system they live. The task lies in creating the pragmatic technical and governance strategies that can effectively deliver these services in areas of conflict and political instability. This section outlines delivery strategies that could prove most useful in meeting this urgent challenge (Fig. 1).

Task Shifting

Task shifting refers to the 'rational redistribution of tasks among health workforce teams', such that 'tasks are moved, where appropriate, to health workers with shorter training and fewer qualifications.'²³ It has been pursued as a practical way to deliver services in areas with few physicians and nurses, and has been shown to be highly beneficial in various settings. Systems of community health workers (CHWs) have proven to be highly effective in reducing maternal and neonatal mortality and morbidity in traditionally underserved areas. However, few of these evaluations have assessed task-shifting strategies in areas of conflict and political instability.²⁴ Nevertheless, the inherent dependence of task-shifting on local personnel could be useful, given the reluctance of more highly skilled or foreign health providers to work in these areas on a continuous basis. Moreover, task-shifting would also mean that local health expertise would not evaporate each time a community moves in response to changes in the local security environment.

Task-shifting in politically unstable environments could prove well suited for interventions generally considered to fall into the outreach category. These interventions include routine ante-natal care, immunization and the provision of presumptive treatment for malaria. Family and community-based

care is also well addressed by task-shifting as it involves the organization of collective health improvement efforts, support for the enhanced use of high-efficacy intervention packages by CHWs, and culturally responsive empowerment initiatives directed at improving family health and well-being. In addition, many important clinical services can be provided through organized CHW systems, including those associated with labour and delivery and the first day of life, the temporal phases that account for the most maternal and neonatal deaths.

However, task-shifting might not be adequate for facility-based services directed at complicated pregnancy and birth. Some efforts have been made to train mid-level health workers to perform caesarean sections and related obstetrical techniques for complicated deliveries.²⁵ However, the widespread use of this would require considerable facility-based capacity and a reliable supply chain, which could be difficult to establish in areas of conflict and political instability.

Financing and Supply Chain

The provision of essential RMNCH services in areas of conflict and political instability will depend on robust and dependable financing and supply chain infrastructure. In this regard, it is useful to recognize that neither the infrastructures used for acute, complex humanitarian emergencies or traditional development assistance are likely to be appropriate in areas plagued by violence, corruption and poor governance. In addition, the international community has imposed economic or political sanctions on some governments or certain elements of the ruling regime.

While fears of corruption and poor governance are an important concern for donors and global health entities, it is not sufficient reason to forego financial support or technical engagement in areas of conflict with high stillbirth and neonatal mortality rates.

- New strategies will be required to directly address security and political requirements of large-scale reproductive and neonatal service implementation in politically unstable areas
- Collaborative health and political research is required to understand the conditions in which health interventions are transformed into currencies of political legitimacy
- Task shifting may enhance the provision of essential maternal and newborn health services in areas of poor security and governance
- Donors will need to increase their engagement in areas of conflict and political instability and support innovation in accountancy, supply chains and communication
- New regional strategies may prove useful in extending reproductive and neonatal services in relatively stable countries to neighbouring areas affected by instability and/or poor governance
- Women's roles and political power will be of particular importance in shaping the effectiveness of reproductive and newborn health initiatives in areas of political instability and poor security

Figure 1 Main elements of addressing reproductive and neonatal health services in areas of conflict and political instability

Rather, new financial and supply chain strategies are needed to address the special concerns inherent in working in areas of conflict and political instability. Recognition of this challenge has generated several new initiatives to strengthen health financing in complex political environments, including the New Deal for Engagement in Fragile States which presents guidelines for donors and international service providers working in countries with poor governance capabilities.²⁶ While helpful, however, these guidelines are more generic than needed in order to create strong mechanisms for financing and managing country health systems. Recent experiences in Zimbabwe, a nation under prolonged economic and political sanctions, have provided useful empirical guidance regarding several kinds of financing mechanisms, including Multi-Donor Trust Funds, Global Funds and Pass-Throughs, and the innovative Transition Fund Model.²⁷ This latter approach was felt to be successful by emphasizing collaboration with line ministries and a continuous focus on meeting specific health delivery benchmarks.

Technological Innovation and Virtual Infrastructures

Use of mobile phones in low-income and politically unstable countries has increased dramatically over the past decade. By 2013, nearly two-thirds of all households in sub-Saharan Africa had at least one mobile phone: 78% in Nigeria, 80% in Zimbabwe and 52% in the Democratic Republic of Congo.²⁸ While numerous mobile applications have been developed for health provision in low-resource settings, the challenge lies in developing mobile platforms that can overcome specific health delivery barriers generated by conflict and political instability.

Mobile platforms and related technological advances have the potential to provide organizational linkages between health programmes and health workers which would otherwise require interaction in formal facilities. Important innovations for financial management and accounting practices have also been developed for mobile platforms, particularly in mobile currencies and banking mechanisms.²⁹ Some have the potential to be of great use in evading corrupt local systems for handling funds which could enhance donor confidence and help manage health programmes in unstable areas.

Mobile technologies could also facilitate task-shifting programmes by reducing training requirements and improving communication across levels of care. Cell-based applications have already been designed to greatly reduce the training and data management requirements of maternal and child nutrition surveillance and intervention programmes. These technologies are also being used to improve

community-care of patients with non-communicable diseases such as diabetes and hypertension, and for complicated pregnancies.³⁰

Regional Hubs

Another potential mechanism to extend reproductive and newborn health care to areas of conflict and political instability is to develop regional programmatic hubs based in relatively stable areas with programmatic extensions into areas of erratic security and poor governance. In this way, the main management and accounting hub in more stable settings could reach out to unstable communities. Important multi-lateral political and economic structures operate in areas of concern, such as the African Union, regional offices of the World Health Organization, and the recently launched Global Financing Facility to address women's and children's health, and they could provide the support necessary to create and sustain such regional hubs.

Newborn Survival and the Politics of Women's Health

While most programmes to reduce stillbirths and neonatal mortality generally address the health of newborns, almost all of them are built upon services provided directly to women,³¹ and so roadmaps such as the Every Newborn Action Plan inherently involve issues of gender, and gender is always political. The implementation of such roadmaps in areas of poor security and political instability must address the role of women which, in turn, generates challenges and opportunities for the successful implementation of reproductive and newborn services in affected communities.

In many areas, pregnancy and childbearing is considered the domain of women alone, which could distance programmes concerned with these issues from funding streams which are more routinely vulnerable to corruption and clientelism. The dependence on women has also allowed reproductive and newborn programmes to facilitate and benefit from the mobilization of women and their community-based collective activities.³² However, the role of women in many unstable areas can be a point of contention and great care is needed in shaping how reproductive and newborn health programmes operate in such a cultural and political environment. In addition, programme components such as the use of CHWs and the operation of health facilities in unstable areas must take fully into consideration the security of women participating in these activities. The best guarantee that a programme will address the security requirements of women providers and patients is to seek the advice of local women and maintain a close engagement with them as programme components are implemented and refined.

Conclusion

While dramatic improvements in maternal and child health have been documented throughout much of the world, trends in stillbirth and neonatal mortality have lagged behind. Of special concern have been reproductive and neonatal outcomes in countries plagued by conflict and political instability. Not only do these countries continue to experience high rates of stillbirths and neonatal mortality, but they account for an increasingly large portion of all such adverse birth outcomes globally. Despite these troubling relative and absolute indicators, the special requirements for improving reproductive and neonatal outcomes in areas affected by conflict and political instability have not received adequate attention. In order to address this challenge, new and more effective strategies and policies will be required. Most importantly, these strategies must integrate the technical expertise of the maternal and child health community with the political expertise of disciplines that study security, governance and the provision of public goods in unstable parts of the world.

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