Available online at www.sciencedirect.com
ScienceDirect
Health Policy 84 (2007) 359–367
HEALTH policy
www.elsevier.com/locate/healthpol

Safe motherhood in Ghana: Still on the agenda?

Tamunosa Okiwelu [a,*,1], Julia Hussein [b], Sam Adjei [b], Daniel Arhinful [c], Margaret Armar-Klemesu [c]

[a] *Institute of Public Administration, University of Benin, Benin City, Nigeria*
[b] *IMMPACT, University of Aberdeen, United Kingdom*
[c] *Noguchi Memorial Institute for Medical Research, University of Ghana, Ghana*

Abstract

Objective: This paper is an exploration of health sector and programming issues that resulted from a description of safe motherhood activities in Ghana.
Methods: Descriptions of safe motherhood programmes were collected from various stakeholders through structured interviews. The characteristics of the programmes were compared to national safe motherhood aims and in the context of the reproductive health and sector-wide environment in Ghana.
Results: Thirteen safe motherhood programmes were described. Their goals were wide ranging and did not necessarily target pregnant and postpartum women only. Community based interventions were slightly less dominant than service provision activities. A broad funding base was identified, strongly represented by external donors. Many funding contributions were not part of the Ghana government's Sector-Wide Approach (SWAp) to health.
Conclusions: Although reduction in maternal mortality ratio is a priority in Ghana's policy, many funding agencies supporting what are known as "safe motherhood" programmes are actually pursuing a somewhat broader reproductive health agenda. The evidence that this situation has actually led to a dilution of the maternal mortality reduction agenda is inconclusive, although our analysis has resulted in lessons which could be used to avert any risk to achieving this key millennium development goal. Government can use the SWAp to keep interests focused on the need for maternal mortality reduction, without detriment to other priorities. Strengthening partnerships will allow civil society and community focused interests to have a voice in influencing SWAp agendas. Good programme design with clear understanding of the link between programme components and objectives will help in making sure that maternal mortality targets are indeed achieved.

Keywords: Safe motherhood; Maternal mortality; Ghana; Sector-Wide Approaches (SWAPs); Health policy

1. Introduction

Complications of pregnancy and childbirth have been identified as the leading causes of death among women of reproductive age [1,2] resulting in high

* Corresponding author. Tel.: +1 310 673 5113.
E-mail address: tisa39@hotmail.com (T. Okiwelu).
[1] Previously Country Link Adviser, IMMPACT, University of Aberdeen, United Kingdom.

0168-8510/$ – see front matter © 2007 Elsevier Ireland Ltd. All rights reserved.
doi:10.1016/j.healthpol.2007.05.012

maternal mortality ratios. Of over 500,000 maternal deaths which occur each year, 95% take place in resource-poor countries in Asia and Africa [3,4]. Reducing maternal mortality ratios had been the concern of many international conferences during the decades preceding the millennium [2,5]. The global sense of urgency has only increased with the approaching millennium development targets for 2015. But has there been much change observed? Although progress in reducing maternal mortality is difficult to track due to methodological constraints, the information currently available suggests that declines in maternal mortality have been extremely slow. In sub-Saharan Africa, the maternal mortality ratio has fallen by only 1.6% per annum since 1990, compared to the average annual decline of 4.5% seen in East Asia and the Pacific region. An average decline of 5.4% per annum is required to achieve the millennium targets [6]. This is in spite of accumulated knowledge about why maternal deaths occur and what needs to be done to avert them [2,5]. What seems to have been lacking, particularly in resource-poor countries, is evidence on effective and cost-effective safe motherhood programmes that will allow policy-makers to make decisions on judicious use and equitable allocation of resources [7].

Although well-endowed with natural resources, Ghana has remained poor [8] and heavily dependent on international financial and technical assistance [8,9] for development purposes. Ghana is believed to have one of the most advanced health systems in Africa [9,10] yet its health system remains plagued with such problems as poor maternal and child health indicators; inappropriate and inefficient use of scarce resources; services that are insensitive to local needs; poor quality of services and obstacles to access and use of available services; inadequacy of systems for managing and monitoring services; and multiple donor-funded and poorly coordinated vertical programmes [10,11]. These problems informed the wave of health sector reforms which started in the region in the mid 1990s [12]. The latest of these reforms is the Sector-Wide Approach (SWAp) advocated by the World Bank and some bilateral agencies in the early 1990s [10,13].

SWAps are believed to offer better prospects of sustained improvement in people's health than the piecemeal pursuit of separately donor-financed and donor-implemented projects [13–15]. Introduction of the approach was based on the premise that coordination of development assistance activities, under the leadership of national authorities, is necessary to achieve greater impact than had been possible through multiple donor-supported projects [13,14,16,17]. Pooling donor and government resources are supposed to make resources available and channelled to areas of greatest need. Ghana's experience and performance, as one of the few African countries to adopt the SWAp to development in the context of health sector reform, has been widely cited in the literature [11,15–19].

Ghana's national safe motherhood programme was launched in 1993 [19], in response to the search for an effective strategy to improve maternal health in the country. With a high national maternal mortality ratio of 540:100,000 live births [20] the one priority of the programme is the reduction of maternal mortality. The national safe motherhood programme is a component of a larger national reproductive health programme, articulated as the "National Reproductive Health Policy, Standards and Protocols" based on the ICPD Programme of Action. The national safe motherhood programme acts as an umbrella strategic plan for maternal mortality reduction which is being implemented throughout the country in the form of routine health services, as well as various independently funded initiatives and projects. The national programme is funded by the Ghana Government and some bilateral and multinational agencies. It provides a guideline upon which the various activities in Ghana relating to safe motherhood are based, including the strengthening of service availability, accessibility and acceptability, capacity building and quality improvements such as recommendations on clinical management protocols, audits, etc. [9,21].

Within this context, the extent to which the Government of Ghana achieves her national safe motherhood goal will depend on the types of safe motherhood programme activity that are being implemented and how these reflect national priorities for health.

In 2003, a description of safe motherhood programmes was conducted in Burkina Faso, Ghana and Indonesia to find a way to categorize safe motherhood programmes based on their goals and characteristics such as content, targets and intervention types as a first step towards conducting evaluations of these complex public health interventions [22]. This paper is a consequence of that descriptive exercise, exploring the findings in relation to the understanding of, and influ-

ences over, the safe motherhood agenda in Ghana. A discussion of potential gaps and pitfalls related to safe motherhood priorities is provided from the perspective of the authors, who are researchers and practitioners placing high priority on maternal mortality reduction globally and in country. Through this description of safe motherhood programmes in Ghana, a key public health policy issue is raised—on whether the inclusion of safe motherhood within a broad reproductive health and sector wide agenda might draw attention away from the need to reduce maternal mortality, which has been identified as a "difficult to reach" millennium development goal [6].

2. Materials and methods

An exercise to describe safe motherhood programmes in Ghana was carried out between October and December 2003. The intention was to include all the national safe motherhood programmes in Ghana as well as focusing on sub-national programmes in three regions—Greater Accra, Central and Upper East. These were the three priority regions originally considered for IMMPACT focus by 10 senior officials from the government, non-government and donor organizations. Greater Accra was identified as priority region because of the poor maternal health particularly in urban areas of the region. Central and Upper East regions were selected due to the high levels of poverty and poor maternal health indicators.

A list of safe motherhood programmes in Ghana was initially obtained from the Reproductive and Child Health Unit of the Ghana Health Service. One key individual, a lead planner or manager, was interviewed for each programme. Funding agencies were not primary targets for the study but where one was known to be involved in implementing a programme, a representative of the agency closely involved in the programme was identified and interviewed. Participation was voluntary. The individuals interviewed were also asked to identify any safe motherhood programmes they knew about. These programmes were also included in the list. One bias is possible in relation to the comprehensiveness of the list of safe motherhood programmes. The list of programmes obtained comprised mainly of programmes implemented by the Government and its foreign donors with only one exception—a programme implemented by an umbrella organization for midwives in the private sector. No other private or mission sector organization involved in safe motherhood was reflected in the list. These two groups provide a large proportion of maternity services in Ghana collectively. Individually however, many of these activities would have been at a small scale. Furthermore, many function independently, making identification of a spokesperson for the collective efforts difficult, so these two sectors were not included in the descriptive exercise.

Face to face interviews were conducted by at least two researchers experienced in programme and policy aspects, using a structured questionnaire. The questionnaire dealt with two main aspects of programmes—general information, such as official title of the programme, contact details, duration and funding sources; and programme content/characteristics, which covered the overall goal of the programme, population group targeted by the programme, programme interventions like training and supplies and a description of types of intervention activities. Where possible, programme documents which provided relevant information were reviewed to verify the responses.

The questionnaire was pre-tested on two programme managers from two of the organizations involved in safe motherhood. At the end of the pre-test the researchers reviewed the pre-test experience and the questionnaire was modified where necessary. The modifications were minimal, so the information from these two pre-tests was included without a re-interview being necessary. The structured interview was complemented with information obtained through informal discussion with the interviewees.

Data were entered into an Excel spreadsheet. The data were divided into the two programme areas covered by the questionnaire (general information and programme characteristics). Information was initially entered into the database and then reviewed for completeness, clarity and consistency of responses. Where necessary, verification of the responses was conducted by telephone or by meeting with the original respondent to clarify information and reconcile inconsistencies between interview responses and the documentation made available.

The completed database was reviewed. A number of characteristics which helped to differentiate between programmes were identified and comprised:

- programme goal;
- coverage (community, district/regional or national);
- target population (men, women, age and pregnancy status of women);
- type of interventions (such as description of activities like training or provision of drugs);
- programme funder(s).

For purposes of confidentiality we are unable to give the titles of the programmes/projects and cannot describe each one independently in detail. A general collective description of the programmes is described to provide the reader with an idea of the sorts of programmes included in the study.

3. Results

Thirteen separate "programmes" (variously called initiatives, programmes and projects) were included in the study, which ranged from country wide interventions to district level activities, as described in more detail in Sections 3.2 and 3.3. Two of these initiatives lasted one and 10 years each and the remaining 10 programmes for between 3 and 8 years. Of the 13 programmes, 10 had broad reproductive and sexual health aims, enhancing the performance of health workers through training, providing maternity and reproductive health supplies and improving supervision and monitoring of services provided. Two programmes were more focused on maternal and child health improvements and one of these on micro nutrient supplementation. The thirteenth programme focussed directly on pregnancy care through the enhancement of transportation and referral services.

3.1. Programme goal

Although we confirmed at the beginning of each interview that we were including only "safe motherhood programmes", we found a range of programme goals and objectives being articulated. Eleven programmes had more than two goals. Of the two programmes with two goals or less, one had a maternity focus, while the other programme had a very broad goal-to "improve family health". Of the programmes with multiple goals and objectives, some were as expected from a safe motherhood programme, such as: reduce maternal mortality/morbidity, improve maternal health, and improve maternity service provision. Three programmes had stipulated "other" goals in addition to maternity related ones: "research and the teaching of life-saving skills in schools"; "gender, cervical cancer, reproductive and adolescent health"; "HIV and family planning".

In an effort to understand further how the individuals we interviewed understood the concept of safe motherhood, we took the opportunity of asking some respondents an open ended question: "In what ways does your organization support safe motherhood in Ghana?" Below are verbatim quotes from four different respondents:

". . .support for safe motherhood is focused on family planning. This is done through supply of contraceptives and through training. . ."

"Part of the safe motherhood activities of this agency are reduction of maternal mortality and increasing the acceptance of family planning. Strategies include: emphasis on increasing accessibility to obstetric care and improving communication (transportation), putting in place missing equipment in some clinics in . . . (the three underserved) regions, collaborating with. . . (another multilateral agency) to provide transportation that suits the terrain, for referral. . ."

"We support safe motherhood by working with midwives and traditional birth attendants (TBAs), mainly to improve provider practice and behaviour. We provide basic materials; give incentives to midwives and TBAs to encourage them in their work. We train midwives in life-saving skills and give treatment for post-abortion complications"

"We address the causes of high maternal mortality at the level of three delays: train members of the community to recognize the danger signs of pregnancy, implement interventions to address poor communication, poor roads; and poor transportation. We intervene at the level of the 3rd delay by training health personnel and equipping health facilities with delivery kits and surgical equipment. . ."

These findings suggest that goals of safe motherhood programmes in Ghana are broad and encompass

a wider than expected range of maternal and non-maternal related objectives.

3.2. Coverage

Seven of the programmes were being implemented country-wide but one of these focused particularly on 3 of Ghana's 10 regions. The remaining six programmes were of limited district or regional coverage. All of the programmes were thus working at national level, or in at least one of our focus regions, thus fulfilling the criteria for inclusion.

3.3. Target population

The population targeted by each programme was related to the range of programme goals, as discussed above. Eleven of the 13 programmes included pregnant and postpartum women as the specific target population. One programme targeted women of reproductive age but pregnant and postpartum women were not the prime target. Children, adolescents, providers of care and policy makers were other target groups identified.

3.4. Type of intervention

The main types of interventions implemented by the programmes were training, the provision of physical infrastructure/equipment/supplies, transport/referral, and management/supervision/monitoring. Seven programmes implemented all the listed interventions; five intervened through training and physical infrastructure/equipment/supplies but did not provide transport or referrals. Only one programme listed policy level interventions as a specific activity. Another programme concentrated on providing only transport and referral interventions. Six of the programmes implemented "demand" or "community based" interventions such as community mobilisation for transport, village schemes to cover costs of health care or improving awareness of the danger signs of pregnancy. Even in these six programmes however, there were more activities related to "supply side" interventions such as training health workers, improving management systems of health facilities, or providing drugs and equipment.

In the programmes where maternity care was a specified area of work, there was clear inclusion of activities which related to improving emergency obstetric care and skilled attendance by health professionals at delivery, which are both widely acknowledged as strategies to reduce maternal mortality [1,2,5]. This was evidenced by activities which included increasing the availability of consumables for delivery care and related emergencies, training of health professionals in providing life saving care as well as pre-service training to student midwives in midwifery schools. One programme aimed to make pregnancy safer by eliminating delays in accessing service delivery points with health professionals during emergencies. Some programmes however, continued to rely on traditional birth attendants to supervise women in labour.

3.5. Programme funders

The primary funding sources of these safe motherhood programmes in Ghana were bilateral donors such as the Canadian International Development Agency (CIDA), Department for International Development (DFID), Japan International Co-operation Agency (JICA) and the United States Agency for International Development (USAID); several multilateral funders, including United Nations agencies, the World Bank and the European Commission; and other non-governmental organizations such the Planned Parenthood Association of Ghana and the Bill & Melinda Gates Foundation. The government of Ghana also part funds the national safe motherhood programme. International donors provide funding for programmes they implement directly as well as for programmes implemented through local NGOs.

Although questions on funding (budgeted funds, expenditure, etc.) were included in the interviews, little information was made available to the interviewers in reality and promises to send the information on did not materialise.

4. Discussion

Lessons of relevance to public health policy can be drawn from this case study of selected safe motherhood programmes in Ghana. This discussion section provides firstly, an analysis of the reasons why maternal mortality reduction targets might be subsumed within other broader agendas in practice despite strong policy commitment; and secondly, examines how the princi-

ples of the sector wide approach could be used more powerfully to redress potential imbalances between practice and policy level commitments.

The overall goal of Ghana's national safe motherhood programme is to "improve women's health in general and specifically to reduce maternal mortality and morbidity. . ." ([23], p. 7). Thirteen safe motherhood programmes included in this study represent a range of initiatives of different levels of coverage, scale and duration. They were all developed to support the government of Ghana in reaching its national reproductive health goals, and within that, the reduction of maternal mortality. Although the study has not covered all safe motherhood activities nationally, the geographical regions included were specifically selected for their poor maternal health indicators. Consequently, it might be expected that the programmes in these regions would specifically prioritise maternal mortality reduction interventions.

The descriptions of programmes in this study revealed that all but two of the initiatives described had multiple goals which included reduction in maternal mortality and morbidity, but at the same time, also placed high importance on a much broader reproductive health agenda. Eleven programmes targeted pregnant and postpartum women, but also women of reproductive age and adolescents, and in some cases men and children, again emphasizing a wider reproductive health target population than usually expected from safe motherhood programmes. This rather unfocused approach to goal and target setting does match that of the national programme—the approach being that safe motherhood is a key component of the National Reproductive Health Programme [23]. Although consistent with the programme of action articulated in the 1994 International Conference on Population and Development, the approach is one which could be interpreted as one emphasising reproductive health at the expense of safe motherhood, as reflected in implementation goals of the programmes included in our study.

Apart from programme characteristics reflecting strategic policy goals for reproductive health in Ghana, there may be another reason for a potential dilution of the goal of maternal mortality reduction. Safe motherhood programmes in Ghana are in the main, donor-funded. Even the national programme is dominated by external organizations. Four organizations, one a bilateral agency and the others multilateral agencies, were consistently named by our respondents as being involved in safe motherhood in Ghana. Two of these are primary funders of nine of the "safe motherhood" programmes described, but which in fact had reproductive, sexual or family health goals. These two funding organizations are traditional family planning advocates and have supported family planning in Ghana since the late 1960s to early 1970s [24]. Although one has also been involved in safe motherhood in Ghana since the 1980s, it is listed among the 10 top donors in sexual and reproductive health [11] and is generally known to adopt a reproductive health approach while supporting health programmes.

The government coordinates donor activities through the Ministry of Health under the platform of the health sector-wide approach. Coordination, however, has continued to pose challenges because some donors continue to favour specific targeting of certain areas of work consistent with donor interests. The consequence of this situation in Ghana is that several different safe motherhood and reproductive health programmes continue to be implemented, albeit under the "national" umbrella. Non-SWAp donors exist alongside SWAp donors. Three SWAp donors are active in Ghana [9,24], two of which co-fund one each of the 13 programmes. The others are not known as SWAp advocates. In spite of the health SWAp adopted by the government some of these organizations continue to pursue agendas by which they are traditionally known: family planning and population issues. The tendency is to disburse their funds through separate channels [9,21] thus promoting specific donor interests [21]. Given this situation, and even if the national programme is clear on the importance of maternal mortality reduction, donors continuing separate funding outside the SWAp can create imbalances in the attention paid to national targets. This concern has been noted before: ". . . the loss (to maternal mortality reduction) may be exacerbated by the fact that many agencies and groups involved in reproductive health care originally worked in family planning, and strategies for providing family planning differ from those needed for providing essential obstetric care" [25].

A third and final factor which could lead to the limiting of emphasis on maternal mortality reduction is related to programme design and its associated components. The programmes in this study in general demonstrated a wide range of interventions, includ-

ing training, physical inputs (such as infrastructure, equipment and supplies), transport and referral, monitoring and supervision. Duplication of activities do exist but were not considered to be a serious problem. There were no notable deficits in activities which enhance skilled professional care or emergency care. A tendency to focus more on supply side interventions was, however, noted. While some programmes did emphasise measures to ensure behaviour change or community mobilisation, these were few and not in balance with the "supply" interventions.

One reason for this situation could be related to a suboptimal SWAp approach to partnership, repeating the phenomena discussed earlier of the dominance of donor influenced agendas. Players in health sector reforms have been criticized for maintaining a top-down approach in making their decisions [26]. To emphasize this lack of sensitivity of decision-makers for demand side interventions, it has been noted, for example, that decision-makers in Ghana are reluctant to address the need for safe abortions but have chosen rather to promote family planning, which is strongly supported by donors active here [9,24]. Less controversial than the abortion debate is the example of delivery care seeking behaviour. Only 47% women in Ghana currently seek delivery care with health professionals. With these rates only slowly increasing from 41% over a 15-year period [27,28], there may be good reasons for decision makers to pay more attention to addressing the low demand levels, although it is acknowledged that supply side interventions such as improving the attitudes of health workers may also be necessary [29]. However, the solutions to demand issues are likely to be human resource intensive, requiring long lag times to see tangible results. Demand side interventions also probably do not expend funds quickly. These are all factors likely to make policy, finance and decision making bodies eschew demand side issues.

Despite the plethora of donors supposedly involved in safe motherhood activities, the high maternal mortality ratio of 540 per 100 000 live births in Ghana [20] and limited progress in many maternal health indicators [27,28] remains a concern. Ghana is one of the countries which has signed up to the fifth millennium development goal of reducing the 1990 levels of maternal mortality by 75% by the year 2015. Evidence for the actual dilution of the safe motherhood agenda in Ghana is not conclusive, although the analysis provided above has proposed some reasons for why its occurrence may be a risk in Ghana. Given that this risk is acknowledged, ways of how the policy environment could be used to prevent any threats to the priority of reducing maternal mortality reduction are suggested below.

It has been observed that when safe motherhood is implemented as part of an integrated programme on reproductive health, it can lose the attention needed to reduce maternal mortality [25]. The poor progress in reducing maternal mortality has been attributed to the lack of priority placed on the individual at risk of dying from a maternal cause, and to unfocused interventions targeting mortality [2]. This problem is of particular concern at implementation level, and while reiterating the importance of safe motherhood within reproductive health, concerns have been expressed that "At the operational level many reproductive health programmes omit interventions specifically addressed to pregnancy and childbirth. . ." ([1], p. 3)

The solution to this tension between a focused approach and a broad but integrated approach is not necessarily to advocate for one or the other option. Integrated approaches are likely to be more efficient by preventing duplication within the health system. However, there are risks faced with integrated approaches. Firstly, programmes with multiple objectives may end up spreading their resources thinly over a wide range of activities, resulting in the inability to show improvements in any of the objectives. Secondly, effects of certain activities considered "integrated" may be limited in terms of a particular objective. For example, providing good preventive health care services for all the family would integrate health care for children, sexual health for adults as well as antenatal care for pregnant women. However, given the unpredictability of maternal complications and the fact that most maternal deaths occur during labour and the immediate postpartum period, it is widely accepted that improving antenatal care only will have limited effect on maternal mortality. Other interventions such as skilled care at delivery and emergency care for complications are so focused on maternity care that they can be only partially integrated with other interventions. This is not an argument specific to maternity care, and examples of similar difficulties will be seen in many other areas. For these two reasons, linkages between activities and objectives can become unclear when combined with the

complexity of the programmes. One way around this dilemma would be to ensure that components within a programme are clearly linked to an objective, at least through a pathway of hypothesised causality, even if no evidence for the linkage is yet available. These pathways between activity and objective are seldom specifically enough articulated in many programme designs, leading to over ambitious goals and unrealistic expectations.

It would be simplistic to say that the lack of progress is attributable only to the "dilution" of safe motherhood within other reproductive health priorities by donors working outside the SWAp. However, the principles of the SWAp could be used more effectively by those who control the pooled funds under the SWAp system, to justify the allocation of resources to maternal mortality reduction. Placing maternal mortality as a priority in this way does not imply a swing back toward the "vertical" or unintegrated project based approaches of the 1970s and 1980s. Instead, the opportunity in the SWAp is that it allows national governments to identify the country's key priorities, and to influence external donors to allocate resources accordingly. More clarity is needed to identify key targets. If there is national agreement that maternal mortality reduction is indeed a priority target, this clarity can be used to create a balance between the interests of different players in the SWAp.

Compared to the dominance of donors in the SWAp, the partnership between government and local stakeholders or civil society such as social networks or citizen based lobby groups is less pronounced. With strengthened partnerships in this direction, policy decisions and programme implementation can benefit, as demand side interventions will improve the quality and responsiveness of service delivery in both public and private sectors [26].

5. Conclusion

Policies in many developing countries are usually influenced by a range of different agendas of national and international organizations, especially those providing resources to implement programmes. In Ghana, reduction of maternal mortality needs to remain high on the priority list, and is indeed reflected in the policy level health sector goals. In practice however, our assessment of safe motherhood programmes in Ghana suggests that the aim of reducing deaths in pregnant women is being diluted by a much broader reproductive health agenda. The reasons for this include the embedding of maternal mortality reduction goals within a reproductive health policy, potential deficiencies in the constituents of safe motherhood programmes and influence of donor agendas on national priorities despite existence of the SWAp. These are factors which are likely to exist in many other developing countries and thus need to be acknowledged in global policy debates. Some recommendations emerge from this case study of Ghana. When planning and designing safe motherhood programmes, more clarity is required on the link between programme constituents and its stated policy goals in order to ensure that investment in programme activities will indeed lead to expected outcomes. Principles of the Sector-Wide Approach could be utilised better to improve the focus on key needs such as maternal mortality reduction, if this is indeed identified as a priority. Creating balanced partnerships within the SWAp, especially by engaging civil society, will enable stronger supply-demand equilibrium in programme design. Without endangering the value of integrated approaches to improving health systems, more focus can be placed on the difficult-to-reach, millennium development target of maternal mortality reduction. Safe motherhood may still be on the policy agenda in Ghana, but could be at risk of being lost in the milieu of other interests during programme implementation. A high awareness of these risks can contribute to ensuring that the current momentum of interest in the reduction of maternal mortality is maintained in Ghana.

Acknowledgements

This work was undertaken as part of an international research programme—IMMPACT (Initiative for Maternal Mortality Programme Assessment. See: http://www.abdn.ac.uk/immpact), funded by the Bill & Melinda Gates Foundation, the Department for International Development, the European Commission and USAID. The funders have no responsibility for the information provided or views expressed in this paper. The views expressed herein are solely those of the authors.

References

[1] Starrs A. The safe motherhood action agenda: priorities for the next decade. New York: Interagency Group for Safe Motherhood and Family Care International; 1997.

[2] Maine D, Rosenfield A. The safe motherhood initiative: why has it stalled? American Journal of Public Health 1999;89(4):480–2.

[3] World Health Organization. Revised 1990 estimates of maternal mortality: a new approach by WHO and UNICEF. WHO/FRH/MSN/96.11 and UNICEF/PLN/96.1. Geneva; 1996.

[4] WHO, UNICEF, UNFPA. Maternal mortality in 1995: estimates developed by WHO and UNICEF. Geneva; 2001.

[5] Berer M, Sundari Ravindran TK. Preventing maternal mortality: evidence, resources, leadership, action. In: Berer M, Sundari Ravindran TK, editors. Safe motherhood initiatives: critical issues. Reproductive health matters. Oxford: Blackwell Science; 1999.

[6] Wagstaff A, Cleason M. The millennium development goals for health: rising to the challenges. Washington: The World Bank; 2004. p. 37–44.

[7] Graham WJ. Now or never: the case for measuring maternal mortality. The Lancet 2002;359:701–4.

[8] Republic of Ghana. http://www.nationmaster.com/encyclopedia/Ghana. 2005.

[9] Mayhew S. Sexual and reproductive health in Ghana and the role of donor assistance. In: Ethelston S, Bechtel A, Chaya N, Kantner A, Vogel CB, editors. Progress and promise trends in international assistance for reproductive health and population. Washington, DC: Population Action International; 2004. p. 35–42.

[10] World Bank. Education and health in sub-Saharan Africa: a review of Sector-Wide Approaches. African Regional Human Development Series, Washington, DC; 2001.

[11] Annan J. Ghana health sector-wide programme (English). JSA Consultants Ltd., Accra. A case study prepared for DAC I/CD network and policy branch of CIDA, April 1999.

[12] Hill PS. The rhetoric of sector-wide approaches for health development. Social Science and Medicine 2002;54:1725–37.

[13] Cassels A. A guide to sector-wide approaches for health development: concepts, issues and working arrangements. Geneva: World Health Organization; 1997.

[14] Cassels A, Janovsky K. Sectoral investment in health: prescription or principles? Social Science and Medicine 1997;44(7):1073–6.

[15] Cassels A, Janovsky K. Better health in developing countries: are sector-wide approaches the way of the future? The Lancet 1998;352(9142):177–9.

[16] Peters D, Chao S. The sector-wide approach in health: what is it, where is it leading? International Journal of Health Planning and Management 1998;13:177–90.

[17] Hutton G, Tanner M. The sector-wide approach: a blessing for public health? Bulletin of the World Health Organization 2004;82(12):893.

[18] Jefferys E, Walford V. Mapping of sector-wide approaches. Swedish International Development Cooperation Agency. Institute of Health Sector Development. London, July 2003. http://www.hlspinstitute.org/projects/2005.

[19] Oskowitz A. Priority setting of sexual and reproductive health in Africa in the context of health sector reform: an overview. http://www.wits.ac.za/whp/rightsandreforms/docs/PrioritySettingafrica.pdf; 2005.

[20] WHO, UNICEF, UNFPA. Maternal mortality in 2000: estimates developed by WHO, UNICEF and UNFPA. Geneva; 2004.

[21] UNFPA, MOH. Ghana health sector five-year programme of work 2002–2006: an in-depth review of the health sector response to maternal mortality in Ghana by 2003. Ministry of Health Ghana; 2004.

[22] Hounton SH, Meda N, Hussein J, Sombie I, Conombo G, Graham WJ. Describing safe motherhood programs for priority setting: the case of Burkina Faso. International Journal of Gynecology and Obstetrics 2005;91:97–104.

[23] Ministry of Health. Annual Report of the Reproductive and Child Health Unit of the Public Health Division of the Ministry of Health; 2000.

[24] Mayhew SH, Adjei S. Sexual and reproductive health: challenges for priority-setting in Ghana's health reforms. Health Policy and Planning 2004;19(Suppl 1):i50–61.

[25] Goodburn E, Campbell O. Reducing maternal mortality in developing world: sector-wide approaches may be the key. British Medical Journal 2001;322:917–20.

[26] Standing H. Understanding the 'demand side' in service delivery: definitions, frameworks and tools from the health sector. London: DFID; 2004.

[27] Bell J, Curtis S, Alayon S. DHS Analytical Studies No 7 Trends in Delivery Care in Six Countries. ORC Macro and International Research Partnership for Skilled Attendance for Everyone. Calverton, Maryland, USA; 2003.

[28] Ghana Statistical Service and Macro Inc. Ghana Demographic and Health Survey 2003. Ghana Statistical Service and Macro Inc., 2004.

[29] D'Ambruoso L, Abbey M, Hussein J. Please understand... BMC; 2005.