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Lancet series on midwifery

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Andrea Nove gives an overview of the papers on the impact of midwifery on maternal health

At the international level, there is currently much discussion about why some countries have made much more progress than others in improving maternal and newborn health (MNH) and how progress can be maintained and, where necessary, improved in the years to come. A team of some of the world's leading academic and clinical MNH experts have collaborated on a series of papers looking at the contribution that midwifery does (and could potentially) make to MNH. Eventually there will be six papers in the series; the first four were published in the Lancet in June 2014.

Every year, hundreds of thousands of women die during or shortly after pregnancy and millions of babies are stillborn or die within a month of birth.[1,2,3] Millions more suffer poor physical and/or mental health.[4] The Lancet series suggests that midwifery has a major contribution to make to tackling the problems behind these statistics. The authors point out that although most deaths and poor MNH occur in low-income countries because services are under-resourced, poor care can and does also occur in high-income settings, particularly where interventions are over-used because the care system focuses on identifying and treating the 'problem cases', and thus treats all pregnancies as potential problem cases.

Having reviewed a large number of studies, the authors of Lancet paper 1 propose an evidence-based framework for MNH which applies in all settings.[5] The authors describe the framework thus: *'information and education were essential to allow [women] to learn for themselves, that they needed to know and understand the organisation of services so they could access them in a timely way, that services needed to be provided in a respectful way by staff who engendered trust and who were not abusive or cruel, and that care should be personalised to their individual needs, and offered by care providers who were empathetic and kind. Particularly, women wanted health professionals who combined clinical knowledge and skills with interpersonal and cultural competence.'* The authors point out that all women and newborns need the above and, additionally, those with
complications need expert management of those complications.

Paper 1 goes on to review hundreds of studies relating to MNH care practices, identifying those which evidence shows to be effective. Most are effective in improving outcomes for some or all women (for example, antenatal perineal massage, upright positions in the first stage of labour, anti-D injections inpregnancy), but several are ineffective (such as artificial rupture of membranes (ARM) for shortening labour, bed rest for multiple pregnancy). Over half (59%) of the effective practices are within the scope of midwifery as defined in this series of papers. Given this, the authors argue that midwifery should be

central to the way in which MNH services are configured. They suggest that midwifery can make a particular and cost-effective contribution in relation to: education, information, healthpromotion, assessment/screening, care planning, promoting normal processes andpreventing complications. They do, however, acknowledge the main limitation of their study, which is that most of the evidence on which it is basedcomes from high-income countries, and it focuses on the short-term effectiveness of various interventions rather than longer-term impacts.

How much difference would this new MNH framework make if implemented on a global scale? Paper 2[6] uses a mathematical model to estimate the number of lives that would be saved if midwifery was scaled up in the 78 countries which togetheraccount for 97% of the world's maternal deaths and 94% of newborn deaths. The authors estimate that midwifery interventions (including four or more antenatal care visits, skilled birth attendance, breastfeeding support) could prevent 83% of maternal deaths, stillbirths and newborn deaths if they were available to all in these 78 countries, with the strongest impact in the least developed countries. Key among these interventions is contraception, because most of the averted deaths would be due to the prevention of unwanted pregnancy.

In many low-income countries, it is unrealistic to imagine that midwifery interventions could be scaled up to be available to allwithin the next ten years because the existing infrastructure is so poor (a fact that has been brought tragically into focus by the recent ebola outbreak in West Africa) and there are limited resources to invest in developing the health system. But as the authors point out, even a modest scaling-up of midwifery interventions (a 10% increase every 5 years) would result in a huge number of lives saved, so there is no call for fatalism.

Paper 2 also reports some additional analysis of the effect of scaling up specialist MNH services such as safe abortion, management of ectopic pregnancy and caesarean section and finds that the effect, while also beneficial, is less pronounced than the equivalent scaling-up of midwifery interventions. In other words, midwifery provides 'more bang for your buck', but it is not a panacea and needs to be situated within a functioning MNH care system in order for the benefits to be maximised.

It is also important to note that the authors refer to midwifery interventions, rather than midwives. In all of these papers, a distinction is made between 'midwifery' and 'midwives'; the former is a system of care which is usually provided by suitably-trained midwives, but can be provided by other skilled health workers, including doctors, when appropriate. However, using case studies from three countries, the authors point out that obstetrician-led care without midwives might reduce death rates and poor physical health, but it also tends to increase thecost of MNH services and can reduce quality of care (as defined in these papers, including values and philosophy of care as well as technical interventions). They also point out that the midwife is the only health professional whose scope of practice covers the entire continuum of care from family planning through pregnancy, childbirth and the postnatal period and therefore is the person best placed to bring women and their families into the system at the most appropriate time and place.

The modelling tool used in paper 2 is called the 'Lives Saved Tool' or 'LiST'. LiST works by estimating the

impact of particular interventions on the number of deaths. The assumed size of the impact is evidence-based where high-quality evidence exists, and otherwise based on the opinion of a panel of experts.[7] One of the implicit assumptions of LiST is that as coverage of interventions increases, so does quality of care, which is not necessarily true. For this and other reasons, the tool has its critics, but is generally regarded as one of the best available for this type of calculation.

As noted earlier, deaths and stillbirths are generally regarded as the 'tip of the iceberg' when it comes to MNH; and Paper 2 does not attempt to estimate the effect of scaling up midwifery on the physical and mental health of women and babies who do not die. Because most high-income countries currently have low rates of maternal and newborn deaths and stillbirths, LiST models have little to say about the impact of implementing the new MNH care framework in the developed world. For this reason, Paper 2 also includes a short discussion of how midwifeled care has been shown to improve outcomes and cost-effectiveness in high-income countries.

Paper 2 uses a theoretical model, and Paper 3 documents what can happen when the theory is put into practice.[8] It examines the experiences of four low- and middle-income countries which have deployed midwives as a core component of their strategy to improve MNH. Although the four countries have gone about this process in different ways, the authors identified some commonalities, including the broad order in which they have introduced changes to the MNH care system. Stage 1 is to build up the number of health centres and hospitals so that women do not have to travel too far to get to them. Stage 2 is to staff these health facilities with sufficient skilled health workers. Stage 3 is to remove the need for women to pay for MNH services at the point of access. Stage 4 is to make improvements to quality of care.

In these four countries, there is evidence to suggest that the implementation of stages 1–3 has resulted in large increases in uptake of MNH services, indicating that women are more likely to seek care if they can do so without excessive inconvenience and cost, and if they can be confident that they will be seen by a trained provider. All four have also recorded significant reductions in numbers of maternal and newborn deaths. However, their progress has been limited as a result of lack of consideration given to quality of care, resulting in insufficient focus on technical standards, competencies, equipment and coordination between different parts of the health system. The authors identify two 'blind spots' which they see as barriers to improving quality of care: (1) policy-makers not judging quality of care to be as important as availability of care and (2) a tendency towards over-medicalisation.

Paper 4[9] draws the series together by considering the implications for MNH decision-makers if they are to create an environment in which the framework described in Paper 1 can be implemented. These include:

- different types of MNH care providers (doctors, midwives, nurses) should be part of a single, multi-disciplinary team
- all MNH care providers should be able to practise to their full competence
- midwifery should be scaled up so that it can make a greater contribution to efforts to improve

MNH, particularly in sub-Saharan Africa, the only region of the world where the number of pregnancies is projected to increase significantly over the next 20 years, MNH services need to run to stand still and sprint to make improvements

- at the same time, to improve quality of care, investment must be made in the key areas of education, regulation and human resource management
- quality of care should be monitored to assess the effectiveness of efforts to improve it
- the wider health system should be strengthened so that midwifery providers have effective back-up when needed (for example when complications need specialist care)
- service users should be involved in the design and delivery of MNH care

To assist with the decision-making process, the authors call for more research in three areas: (1) how to ensure that skilled providers are deployed to where they are needed, including remote areas; (2) how to improve productivity among midwifery providers in different settings, without losing sight of quality; and (3) how to manage the increasing commercialisation of childbirth (for example, the growth of for-profit services that can lead to over-medicalisation).

All the evidence presented in these papers leads to the conclusion that the scaling-up of midwifery is a key part of the solution to the problem of how to provide high-quality MNH care for all. It will require significant investment, but the evidence indicates that the return on this investment will be massive.

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