The problem

Each year 10 to 15 per cent of the world’s 210 million pregnant women develop a complication that may be fatal to mother or child – and most cannot be predicted. These complications can be treated successfully if a woman receives timely and appropriate emergency clinical care, but too many do not. In many low income countries long distances, geographical barriers, lack of affordable transport, and poor communication infrastructure lead to often fatal delays in reaching life-saving emergency obstetric care (EmOC). This delay causes many preventable maternal and newborn deaths, disease and disability, and contributes to inequity in maternal health. However, there is a lack of guidance about a systematic approach to maximise the likelihood that all women are able to reach EmOC in time. In 2009 Compass reviewed and synthesised studies, experiences and ideas from a range of countries.

Re-thinking the ‘second delay’

The ‘second delay’ has usually been thought about in relation to the journey from home to EmOC of a woman with a complication in labour. But in working towards ensuring that women can reach EmOC in time we need to think more broadly. District level planners need to address all the links in the referral chain for the two pathways pregnant women may take to reach EmOC: travelling directly from home to a health care centre with capacity for comprehensive care of obstetric complications; or seeking care from a first line clinic with onward referral to a comprehensive care centre. This journey might be undertaken during labour, or after a complication occurs.

It is also important to recognise that in some rural and remote areas pregnant women experiencing a complication will not be able to reach care in time even with stronger referral systems. These women need to be encouraged and supported to move within easy reach of EmOC before labour begins. Near the end of pregnancy they might stay at a ‘maternity waiting home’ attached to a hospital with EmOC, or with family, friends, or other ‘hosts’ where transport is available to reach EmOC within two hours if necessary.
Planning

Planning to reduce the ‘second delay’ needs to be an integral part of a broader district maternal health plan that also addresses the decision to seek care, the quality and availability of EmOC, and the underlying causes of poor maternal health. A systematic approach is essential. Appropriate strategies will vary from one setting to another. The ‘second delay’ contributes disproportionately to inequities in maternal health outcomes. Strengthening emergency referral will also have broader benefits for communities, including more effective referral for all medical emergencies. Support and commitment from national governments and donors is essential.

Some key planning questions identified from the review

Informed communities have been willing to pool resources, time and transport to support families affected by an obstetric emergency. What birth preparedness strategies are feasible at the individual and community levels, through antenatal care, women’s groups and other community structures? How can expectant fathers best be engaged and provided with the information they need to prepare for labour and the possibility of complications? What training, support, equipment, means of...
communication, and guidelines for emergency triage, stabilisation and referral are needed to strengthen referral systems at the health centre level?

What are the context-specific cost barriers to reaching EmOC and how can they be removed as part of broader measures to ensure universal access to care? How can district authorities be made accountable for equitable allocation of resources that includes the poorest women? What is the balance between government and community schemes? Would community-based insurance and loan schemes have the strong management they need to be effective and sustainable at scale?

Are there different stages of the journey to care to consider, with different transport options? Do cultural factors affect whether pregnant women will use local transport, such as carts, donkeys, bicycles, boats or tractors? How could they be adapted to enable privacy and comfort? Would solar-powered lights enable night travel? Once the road is reached what mechanisms might increase access to rapid transport, such as bus vouchers, reimbursements to vehicle owners, or recognisable emergency symbols so vehicles stop to help? Where should a dedicated ambulance be placed? Who will have responsibility for vehicle management, including budget, regulations about its use, maintenance and repair, and training and supporting drivers?

Maternity Waiting Homes

Experiences with maternity waiting homes (MWHs) have been mixed. Sometimes the outcomes for pregnant women from a MWH have been compared with the outcomes for women who came straight to hospital to deliver – but these are different groups of women likely to have different risk factors. MWHs need to be available and promoted for women who live too far to reach EmOC if they have a complication in labour. To be effective they must be safe, comfortable, provide food, privacy, meaningful activity, and be affordable. They must be close to the hospital and trained staff should be available and visit daily. They may have a room for normal deliveries or women may move to the hospital to deliver.

How can we best take advantage of the increasing availability and affordability of mobile phones – to provide health messages to pregnant women, to alert family and health providers about labour and complications, and to encourage remote women to move closer to EmOC by enabling them to stay in touch with their homes and families? What is the role of loaning or providing free or subsidised phones to pregnant women, and of phone credit transfers?
Steps in district level planning to prevent the ‘second delay’

1. **Identify and consult stakeholders** - include health, infrastructure, transport and communications sectors, community groups, NGOs and private sector. Involve them appropriately in all planning steps.

2. **Mapping exercise** - to identify current and planned geographical distribution of health care facilities, availability and quality of roads, transport (including placement of ambulances) and communications, as well as locations and size of communities beyond timely reach of EmOC.

3. **Gather information** - to understand social, economic, cultural and system barriers - review existing data; conduct qualitative interviews and focus group discussions; review ‘near miss’ cases at hospitals; identify and analyse costs – at service, community and family level.

4. **Assess options** - consider birth preparedness models for couples and communities; appropriate and affordable transport, infrastructure and communication improvements; and financing options. Explore options for enabling pregnant women in remote settings to move within feasible reach of EmOC before labour begins, while minimising the length of time away from their homes and families.

5. **‘Persona’ exercise** - develop a range of ‘personas’ or imaginary characters, typical of women in different circumstances in the district. Give personas a name, and details of partner, home and family, ethnicity, income, distance from health care services and cultural beliefs. Assess proposed strategies by how well they would meet the needs of these personas. This exercise helps varied stakeholders to plan in a consistent way and gives a ‘human face’ to abstract data.

6. **Clarify responsibilities and costs** - consider stakeholder roles and responsibilities, including for funding, for the different strategy elements at family, community, first line health centre, and referral centre.

7. **Plan for monitoring and evaluation**

The full report with details of evidence, experiences and ideas is available at [www.wchknowledgehub.com.au](http://www.wchknowledgehub.com.au)

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