

Birth and emergency preparedness in antenatal care

INTEGRATED MANAGEMENT OF PREGNANCY AND CHILDBIRTH (IMPAC)

Standards for Maternal and Neonatal Care

1.9

The standard

All pregnant women should have a written plan for birth and for dealing with unexpected adverse events, such as complications or emergencies, that may occur during pregnancy, childbirth or the immediate postnatal period, and should discuss and review this plan with a skilled attendant at each antenatal assessment and at least one month prior to the expected date of birth.

Aim

To assist women and their partners and families to be adequately prepared for childbirth by making plans on how to respond if complications or unexpected adverse events occur to the woman and/or the baby at any time during pregnancy, childbirth or the early postnatal period.

Requirements

- National and local policies support all pregnant women having access to maternal and neonatal health care, including referral care regardless of their socioeconomic situation or place of residence.
- The health care system ensures that all health care providers who come into contact with pregnant women and their families have the capacities, including interpersonal communication and intercultural skills, to support the woman in preparing a birth and emergency plan.
- The health care system ensures that all pregnant women are able to discuss and review their written birth and emergency plan with a skilled attendant, ideally at each antenatal assessment but at least one month prior to the expected date of birth.
- A national or locally adapted card or home-based record exists to facilitate the development and recording of the birth and emergency plan.
- National and local health education activities are undertaken to promote the need for all women to access maternal and neonatal health care, and for all pregnant women to make a birth and emergency plan during pregnancy.
- National and local activities are in place to facilitate community action to participate in, or where necessary mobilize, local efforts to ensure the timely transfer of women and babies with pregnancy- and birth-related complications, especially emergencies, to a facility that has the capacity to manage such complications or emergencies.

Applying the standard

Health providers, especially community workers and skilled attendants who come into contact with pregnant women, their families and supporters, must:

- Provide information to pregnant women, their families and the broader community on the signs of labour and when to seek care if danger signs appear during pregnancy, birth and (for both the woman and her baby) the postnatal period.
- Support women and their families in developing and reviewing the birth and emergency preparedness plan, including helping them to identify a safe place for the birth (taking account of personal and local circumstances) and deciding on the other elements of the plan such as child care and transport.
- Support women, when needed, in discussing the plan with their partners and families.
- Discuss with traditional healers, traditional birth attendants (where they exist), other lay health workers and community leaders the need to promote the development of birth and emergency plans during pregnancy, and possible community or group action to support women and their babies in accessing appropriate care when needed.
- Disseminate information in the community on danger signs during pregnancy, birth and the postnatal period.
- Regularly discuss with women and community leaders possible community action and/or plans to mobilize local assets and participate in local efforts for the emergency transfer of women and newborn infants with pregnancy- or birth-related complications.
- Identify women and families who have a problem accessing appropriate pregnancy, birth or postnatal care and take action to help them ensure access or, where this is not possible, report such cases to the local authorities responsible for the provision of maternal and neonatal care.

Audit

Input indicators

- ▶ The proportion of pregnant women receiving antenatal care.
- ▶ The proportion of pregnant women with a birth and emergency plan.
- ▶ The proportion of communities where leaders, traditional birth attendants, etc. are promoting birth and emergency plans for pregnant women.

Process and output indicators

- ▶ The proportion of pregnant women and of community members with knowledge of danger signs.
- ▶ A nationally or locally adapted card exists and is used for developing a birth and emergency plan.
- ▶ Supporting educational materials for developing a birth and emergency plan are available and are in use.

Outcome indicators

- ▶ The proportion of births at which a skilled attendant is present.
- ▶ The proportion of births at which a birth companion, designated by the woman, is present.
- ▶ The proportion of women who recently gave birth whose delivery took place where planned.
- ▶ Transport is available to referral facilities.

Rationale

Burden of suffering

Childbirth is a normal physiological process for the majority of women and a process that, like all other life events, is looked upon with a mixture of anticipation and happy expectation. Studies in developed countries have shown a positive impact on pregnancy and birth outcomes when the woman feels in control of the process of pregnancy and birth; making a birth plan has been shown to facilitate this feeling of self-control and autonomy.

Historical evidence shows that no country has managed to bring its maternal mortality ratio below 100 per 100 000 live births without ensuring that all women are attended by an appropriately skilled health professional during labour, birth and the period immediately afterwards (1). Many of the complications that result in maternal deaths and many that contribute to perinatal deaths are unpredictable, and their onset can be both sudden and severe. Delay in responding to the onset of labour and such complications has been shown to be one of the major barriers to reducing mortality and morbidity surrounding childbirth (2). Information on how to stay healthy during pregnancy and the need to obtain the services of a skilled birth attendant, on recognizing signs of the onset of labour, and on recognizing danger signs for pregnancy-related complications and what to do if they arise would significantly increase the capacities of women, their partners and their families to remain healthy, to take appropriate steps to ensure a safe birth and to seek timely skilled care in emergencies. Interventions to reduce the other barriers to seeking care, such as transport costs, perceptions of poor quality of care and cultural differences, must also be addressed.

Efficacy and effectiveness

Two types of interventions for developing birth plans were identified, each emphasizing a different aspect of care. Interventions that were conducted in higher-resource countries focused mainly on the woman's psychological and physical comfort (birth plan), while those in lower-resource countries tended to focus on measures to ensure a safe birth with the appropriate attendant and to prepare for emergencies (birth and emergency preparedness). Birth and emergency preparedness (also known as birth preparedness and complication readiness (3,4)) is considered by WHO and other agencies to

be a useful and practical intervention with several advantages (5). In particular, it can contribute to increased use of services by assisting women and their families to plan for the necessary support, clothing and equipment for the birth, etc., and by making women and their partners/families aware of the potential for unexpected events (6).

A birth plan/emergency preparedness plan includes identification of the following elements (6–8): the desired place of birth; the preferred birth attendant; the location of the closest appropriate care facility; funds for birth-related and emergency expenses; a birth companion; support in looking after the home and children while the woman is away; transport to a health facility for the birth; transport in the case of an obstetric emergency; and identification of compatible blood donors in case of emergency.

Birth preparedness is not easy to achieve. Many people in developing countries live on less than US \$1 a day, which is hardly sufficient for them to feed and clothe themselves let alone put aside money for the possibility of an obstetric emergency. In rural areas, the situation is even more complex: even if transportation (and the money to pay for it) is available in the case of an obstetric emergency, distance and lack of maintained roads may still cause delays sufficient to put the life of the woman in danger (9).

Although little empirical evidence exists as yet to show a direct correlation between birth preparedness and reducing maternal and/or perinatal mortality and morbidity, limited and small-scale studies suggest that there is considerable benefit to be gained from this intervention (9–12). Given the difficulties in predicting pregnancy-related complications, providing information, education and advice to the woman, her family and the community on seeking necessary care is seen as an important part of antenatal care (5).

Studies show that, while no clear relationship has been found between improved knowledge and increased health-seeking behaviour, the adoption of new practices associated with planning (such as setting aside money for the birth, transport arrangements and the use of birth planning cards) at family and community levels is encouraging (9).

The presence of a person of the woman's own choice to provide social support during childbirth has also been shown to have a positive effect (13,14). Thus, an important part of preparing for birth is seeking contact with and obtaining the services of a skilled birth attendant. Developing a birth plan can assist the woman to decide where she wishes to give birth and which attendant she feels most comfortable with.

Birth plans have been used by many women in a number of developed countries for more than a decade, with different and sometimes conflicting results (15–17). There is also evidence that such planning for birth can be used in other settings, including low-resource settings (18) but few studies have examined the effectiveness of these interventions and existing studies are flawed owing to study and sample design (19). Nevertheless, in an unpublished WHO review (9), eight projects had encouraging results in using a birth plan/emergency preparedness plan as an essential component of their safe motherhood activities.

The current consensus of those working in safe motherhood is that, if people are aware of the importance of having care from a skilled birth

attendant, know where to go in an emergency, and plan accordingly for costs and other practical matters, it is more likely they will get the support they need in these circumstances. Taking advantage of antenatal care to support the woman in preparing for birth, using health education philosophy, holds much potential for improvements in maternal and neonatal health (4).

The lack of evidence demonstrating a negative impact of birth plans/emergency preparedness plans, the right of women and families to self-determination, and recognition of the capacities of women and families to contribute significantly to maternal and neonatal health has led WHO to recommend this intervention as a fundamental component of all antenatal care programmes. Consequently, birth plans/emergency preparedness plans are included in the new WHO antenatal care model (5) and the integrated management of pregnancy and childbirth (IMPAC) (6). A handbook on counselling and communicating information on pregnancy, childbirth, postpartum and newborn care, including a session on how best to support the woman and her family to develop such a plan, is in preparation.

The table below summarizes the evidence from the most relevant studies. The level of evidence is presented using the NICE methodology which applies a coding from 1 (high level) to 4 (low level). For details, see also the *Introduction to the Standards for Maternal and Neonatal Care* and the *Process to develop the Standards for Maternal and Neonatal Care* on http://www.who.int/making_pregnancy_safer/publications/en. For an overview of a comprehensive list of evidence, please refer to the reference section of the standard.

Study (Type & Level of evidence)	Population & Setting	Objective & Intervention	Outcomes linked to the Standard	Results
11. CARE 2000 Observational studies 2–	219 women, 128 who had given birth in the previous year and had been introduced to birth planning and 91 who had not been introduced to birth planning Bangladesh	To evaluate an approach to facilitate birth planning Birth planning by families promoted through interpersonal communication and a pictorial birth planning card	Savings/generation of small emergency fund at family level Organization of emergency transport Preparation for emergency blood transfusion Knowledge of appropriate hospital	Intervention (N = 128) vs control (N = 91) 95% vs 25% 35% vs 0% 5% vs 0% 40% vs 7%
12. The Communication Initiative 2004 Observational studies 2–	Data collection involving more than 1700 interviews with randomly selected individuals to produce a representative sample Indonesia	Use of radio, television, print materials, special events and training programmes to reach Indonesian families and communities with the concept of being alert (siaga) to emergencies during childbirth	Women aware of “bleeding” as an indicative danger sign during pregnancy Women reported using a skilled provider for childbirth	Exposed vs non-exposed 40.7% vs 16.4% 67.0% vs 44.2%

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Links and additional sources

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