

# A guide to the provision of safe delivery and immediate newborn care in the context of an Ebola outbreak

## Purpose of the guide

This briefing note provides information to policy makers and programme managers on how to deliver critical health services for **safe delivery and immediate newborn care** to prevent increased maternal and newborn mortality due to preventable causes within the context of the current Ebola outbreak in West Africa. In the affected countries, health systems are now fragmented, significantly reducing access to routine health services, in particular essential maternal and newborn care. The interventions summarized in this guide are intended

to lower the risk of delivery and post-partum complications for both the mother and the newborn, particularly the risk of postpartum haemorrhage and infections, and improve the immediate care of premature babies. The recommendations are also intended to minimize the exposure of health care providers to blood and bodily fluids that could transmit Ebola. This October 2014 guide will be constantly reviewed and updated as the Ebola outbreak continues to evolve.

## Introduction

The outbreak of Ebola Virus Disease (or Ebola) continues to evolve, with the severely affected countries, Guinea, Liberia and Sierra Leone, struggling to control the escalating outbreak against a backdrop of high maternal, newborn and child mortality and low skilled birth attendance rates. The Ebola outbreak has severely compromised health systems, causing significant deficits in human resource capacities and the complete closure of health facilities in some places. Various misconceptions and fears have led to significant declines in the utilization of health facilities by mothers and newborns, further reductions in skilled birth attendance rate and an increase in home deliveries. Furthermore, there is an absence of well-functioning health facilities able to provide backup referral services, in particular for obstetric and neonatal complications, in affected communities. A major consequence is the likelihood of increased maternal and newborn

deaths and morbidity as well as the risk to health workers of exposure to Ebola-infected blood and body fluids during childbirth. There is an urgent need, in consultation with communities and key partners, to strengthen priority health delivery systems at different levels of care to maintain the provision of essential basic health services in Ebola-affected areas. Given the limited availability of skilled health care staff, community health workers (CHWs) can play an important role in the provision of basic health services in affected communities.

UNICEF, WHO and Save the Children have developed this guide to provide essential information on **what needs to be done differently** to save mothers and newborn lives in the face of this devastating outbreak, with a special focus on the time of labour, delivery and the first week of life.

# Key considerations for the provision of safe delivery and postnatal services in the context of the Ebola outbreak

## Identify, train, equip and incentivize health care workers including CHWs to provide priority lifesaving maternal and newborn interventions in the context of Ebola.

- Through functioning health facilities, CHWs, community volunteers and community leaders **distribute Clean and safe Delivery Kits** and **Newborn kits** to all pregnant women and birth attendants (see Annex 1 for contents of the kits). *Women should be encouraged to have the kits immediately available with them whether they deliver in a health facility or at home, as health facility supplies have been disrupted and there is a shortage of these kits.*
  - An additional item to include in the clean delivery kit is **misoprostol for the prevention of postpartum haemorrhage**. In settings where skilled birth attendants are not present, the WHO recommends the administration of misoprostol (600 mcg PO) by CHWs to prevent **postpartum haemorrhage**.
  - All health workers should be trained on the use of misoprostol, in particular that the misoprostol should be **taken only when the baby has been delivered**. After a normal vaginal delivery, it is important to confirm that there is no undiagnosed second twin before giving the misoprostol. If there is any uncertainty, or if the birth attendant is unqualified to make the decision, then misoprostol is best given after delivery of the placenta.
  - **It should be noted that the potential side effects of misoprostol include fever, chills, nausea, vomiting and diarrhoea, similar to Ebola symptoms**. Therefore, before and after administration of misoprostol, women need to be closely monitored, contact with the blood and bodily fluids of women exhibiting symptoms should be avoided, and all personal protective measures and hand washing with soap after contact applied until Ebola infection can be ruled out. It is important to educate women and providers to monitor the side effects as some are similar to Ebola symptoms. A clear understanding of misoprostol side effect profile and the pre- and intrapartum well-being of the mother would enable health workers make the appropriate assessment and take necessary actions following childbirth. An important pointer to misoprostol-related fever, chills and rigour is that the symptoms are often self-limiting.
- The **newborn kit** should include 7.1 per cent **chlorhexidine to be applied to the umbilical cord immediately after delivery** to prevent neonatal infection. WHO guidelines: Daily chlorhexidine (7.1 per cent chlorhexidine digluconate aqueous solution or gel, delivering 4 per cent chlorhexidine) application to the umbilical cord stump during the first week of life is recommended for newborns who are born at home in settings with high neonatal mortality (30 or more neonatal deaths per 1,000 live births). *Appropriate infection prevention measures must be taken by health workers to avoid neonatal infection through cord care.*
- Through community leaders, pregnant women and birth attendants, strengthen **community education** on Ebola prevention and transmission, prevention of maternal and newborn deaths, essential newborn care (*keeping the baby warm and dry, and early initiation of breastfeeding*) immediately after delivery and during the post-natal period, identification of danger signs for the mother (*haemorrhage and infection*) and newborns (*fever, signs of infection, fatigue and loss of appetite*) and indications for referral.
- Mobilize a network of trained and incentivized CHWs and community health volunteers to **conduct home visits for the postnatal care** of the mother and baby during the first week after childbirth using a 'no touch' approach. *This means the provision of care without any physical contact by the CHW with either the mother or the newborn, in line with the no touch policy for CHWs providing integrated community case management.*
- Identify a referral facility to which obstetric and neonatal emergencies can be referred. In consultation with community leaders, set up a system for contacting the referral service and for transporting patients.

## For health facility deliveries

- All pregnant women should be encouraged to bring with them the clean and safe delivery kit received during pregnancy to health facilities as many of the facilities are suffering from shortages of supplies and equipment.
- All facility deliveries should be conducted by a skilled provider who follows the recommendations outlined to strengthen the Ebola response; this includes the use of Personal Protective Equipment (PPE) for all health workers, frequent hand washing with soap, use of disposable supplies and the decontamination of non-disposal instruments (bag and mask, suction device) and the labour ward after each delivery.
- Health workers are advised **not to touch** any woman who has signs of Ebola and

immediately refer her to the nearest treatment centre with appropriate precautions. *If immediate referral is not possible, the woman should be isolated from all other patients and health workers apply the use of full PPE and washing with soap after coming into contact with the woman until it is possible to transfer her.* If referral is not possible, conduct delivery after getting fully dressed with PPE and all steps are taken to avoid risk of infection for the health worker.

- Health workers are advised **not to touch** a newborn whose mother was diagnosed to have an Ebola infection. The newborn should be referred to an Ebola treatment centre with appropriate precautions. Care takers and health workers should wear PPE when providing care for the newborn.

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## For home deliveries

- Clean and safe delivery kits should be distributed to all pregnant women by community leaders, CHWs, community volunteers and birth attendants.
- CHWs are advised **not to touch** any pregnant woman in labour who has signs and symptoms of Ebola and immediately refer her to the nearest treatment centre with appropriate precautions. *If immediate referral is not possible, the woman should be placed in an isolation area and all community and health care workers and caregivers should apply the use of full PPE and hand washing with soap when coming into contact with the woman until it is possible to transfer her.*

- In cases where delivery is imminent at home, CHWs and birth attendants who have been trained on the use of both the clean and safe delivery kit and the newborn kit should support the women. **If the woman is exhibiting signs of Ebola then the delivery should be conducted with full PPE, and infection prevention measures taken** to avoid infection. She should be immediately referred after delivery. The placenta should be treated as other solid, non-sharp, biological infectious waste and should be collected using a leak-proof waste bag and buried deep into the ground. Birth attendants **must adhere with the WHO full waste management procedures** in the context of Ebola outbreak<sup>1</sup>.

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## Postnatal care for mothers and newborns within 48 hours after delivery at community and health facility levels

- All women and newborns should receive a postnatal care check as soon as possible and at the latest within 48 hours of delivery either at a health facility or through a

home visit from a trained health and CHW or midwife. The check is to assess complications and to provide advice and education on essential newborn care,

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<sup>1</sup> WHO, 'Interim infection prevention and control guidance for care of patients with suspected or confirmed filovirus haemorrhagic fever in healthcare settings, with focus on Ebola', Geneva, 2014.

including thermal control, cord care, early initiation and exclusive breastfeeding and family planning (for more information on breastfeeding refer to 'Infant Feeding in the context of Ebola – Updated Guidance' available at [www.enonline.net/infantfeedinginthecontextofebola2014](http://www.enonline.net/infantfeedinginthecontextofebola2014)).

- All workers are advised to not touch mother or baby without the use of protective gear. CHW workers are advised to use a **'no touch' approach** when they conduct home visits for postnatal care of any mother or baby with signs and symptoms of Ebola, including during the first week after childbirth. Mothers and newborns with postnatal danger signs should be counselled and referred to the nearest functioning health facility. While waiting, the woman should be isolated and all community and health care workers and caregivers should use the full PPE and hand washing with soap until she is transferred.
- Women should be encouraged to hold their baby skin-to-skin and breastfeed on demand. Babies who are born preterm or with low birth weight should be assessed and referred to a health facility for extra care. Mothers of small babies can be supported to practice Kangaroo Mother Care which

involves continuous, prolonged skin-to-skin contact with the baby on the mother's chest. Kangaroo care prevents infections; promotes breastfeeding; regulates the baby's temperature, breathing and brain activity; and encourages mother and baby bonding. Initiate Kangaroo care as soon as possible after birth, particularly in the absence of intensive neonatal care. Breastfeeding or cup feeding with expressed breast milk should be provided on schedule rather than on demand, as many premature babies have not yet developed the sucking reflex and may not wake up when they need to be fed.

- Target vulnerable groups and individuals for additional postnatal support (e.g., women with complicated pregnancies or deliveries, unaccompanied women and adolescent girls).
- At all times **care should be taken to protect the mother and the newborn baby** from Ebola: *the mother and the newborn baby are particularly vulnerable to Ebola because of the potential for infection through increased surfaces of exposed mucous membranes. Anyone who has been in contact with an Ebola patient should refrain from caring for the mother and the newborn baby until these caregivers are certified free from Ebola.*

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## What is needed to operationalize the interventions in this guide?

- **Policy:** Define the following policies in settings where they do not exist:
  - Misoprostol administration by CHWs after home delivery
  - Chlorhexidine use by mothers for community-based cord care
  - Distribution of PPEs to CHWs for management of imminent home deliveries among Ebola symptomatic women
- **Training:**
  - Train and support health workers and CHWs in the use of the clean and safe delivery kits and caring for the newborn, particularly thermal control, cord care, and early initiation and continued breastfeeding.
  - Train CHWs, midwives and families in the recognition, referral and follow-up of all postnatal complications.
  - Train all health workers and families in the recognition of the signs and symptoms of Ebola.
- **Provision of kits:** Set up a functioning distribution and monitoring system to avoid stock-outs.
- **Incentives:** Provide incentives to health care workers and CHWs to ensure the continuous provision of essential health services at the primary health care and community level.
- **Personal Protective Equipment:** All health workers should be provided with PPE and

be trained on infection prevention measures and on how to safely use PPE. Replenish PPE supplies frequently

- **Supportive supervision:** Whenever possible, all health care providers, whether working at the facility or community levels, should receive regular supportive supervision from district health management teams or staff at the primary health care level.
- **Monitoring and evaluation:** Continuously monitor the implementation of this guide in line with the evolving epidemic: This should include tracking the number and place of deliveries, birth attendant supporting deliveries, use of kits, misoprostol and CHX, referrals, numbers and causes of maternal and

newborn deaths, supplies and equipment, and number of Ebola cases managed in line with the recommended Ebola response.

## References

1. Wilma Doedens and Kate Burns, 'Health in Emergencies', Issue no. 10; WHO, 2001, [www.who.int/hac/about/en/7099.pdf](http://www.who.int/hac/about/en/7099.pdf);
2. 'WHO: Ebola Response Roadmap Update', WHO, 2014, [http://apps.who.int/iris/bitstream/10665/136645/1/roadmapupdate17Oct14\\_eng.pdf?ua=1](http://apps.who.int/iris/bitstream/10665/136645/1/roadmapupdate17Oct14_eng.pdf?ua=1);
3. WHO, 'Reproductive health during conflict and displacement: A guide for programme managers', Geneva, 2000, [http://whqlibdoc.who.int/hq/2001/WHO\\_RHR\\_00.13.pdf?ua=1](http://whqlibdoc.who.int/hq/2001/WHO_RHR_00.13.pdf?ua=1);
4. WHO, 'WHO recommendations on postnatal care of the mother and newborn', 2013.
5. WHO and UNICEF, WHO and UNICEF, 'WHO/UNICEF Joint Statement: Home visits for the newborn child: a strategy to improve survival', 2009.

## Annex

### Clean and safe Delivery Kits

#### Current contents

- Bag, plastic, 18x28cm, snap lock fastening for disposal of placenta
- Soap bar, 100 gm
- Draw sheet, plastic, 100 x 100 cm
- Razor blade, single-edged
- Tape, umbilical, 3 mm x 15 cm (3 pieces)
- Cotton cloth/towel, 'tetra', 90 gm
- Gloves, examination, medium, single use

#### To be added to the current contents:

Misoprostol<sup>2</sup>, for prevention of postpartum haemorrhage; gloves, gynaecological, (two pairs), medium and large, single use; surgical gown (instead of apron), disposable, for birth attendant; mask, disposable, for birth attendant; goggles, disposable, for birth attendant; shoe covers or boots for birth attendant; pictorial guidelines on how to use clean delivery kits

### Newborn kit

#### Current contents

- 7.1% Chlorhexidine digluconate aqueous solution or gel, delivering 4% chlorhexidine
- Tetracycline HCL 1% eye ointment
- Zinc oxide, cream, 100ml tube
- Baby blanket, 300gms, 30x50cm
- Baby vest, cotton
- Baby swaddler
- Hat, wool or cotton, extra small
- Soap, baby, 100gr, hypoallergenic (mild)
- Socks, cotton, extra small
- Towel, 100% cotton, 60 x 80 cm, 300 gms

#### To be added to the current contents:

Pictorial on essential newborn care; pictorial on danger signs for newborn and mother; pictorial of sign and symptoms of Ebola; name of hospitals or health facilities that are providing health care services for referrals

<sup>2</sup> Misoprostol to be distributed with clear pictorial instructions on how to use immediately after delivery of the baby (during the third stage of labour)