BASICS II

BRIEF

Perinatal/Neonatal

The Components of Essential Newborn Care

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Abstract
Essential newborn care (ENC) is a comprehensive strategy designed to improve the health of newborns through interventions before conception, during pregnancy, at and soon after birth, and in the postnatal period. This brief describes the components of ENC, criteria for prioritizing them, and strategies used in operationalizing them. Implementation of ENC will have a positive impact on neonatal and infant mortality.

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The Components of Essential Newborn Care

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Care provided during the perinatal and neonatal periods (Figure 1) is critical to ensuring the health of mother and baby. Maternal health and newborn health are inextricably linked; this brief primarily addresses the needs of the newborn infant and some selected maternal issues that influence birth outcome.

Essential newborn care (ENC) is a comprehensive strategy designed to improve the health of newborns through interventions before conception, during pregnancy, at and soon after birth, and in the postnatal period.

Essential Newborn Care

ENC comprises:

(a) Basic preventive newborn care such as care before and during pregnancy, clean delivery practices, temperature maintenance, eye and cord care, and early and exclusive breastfeeding on demand day and night;

(b) Early detection of problems or danger signs (with priority for sepsis and birth asphyxia) and appropriate referral and care-seeking. This may also be a part of (a) and (c); and

(c) Treatment of key problems such as sepsis and birth asphyxia.

These issues need to be addressed in an appropriate manner at the facility and community levels to ensure a continuum of care.

Components

The components of ENC are summarized in Figure 2 and described in greater detail in Table 1. Depending on their mandates, private voluntary and other organizations may *facilitate or provide* ENC services or simply *promote* them through communication and social mobilization strategies.

Figure 1. Definition of the Perinatal and Neonatal Periods

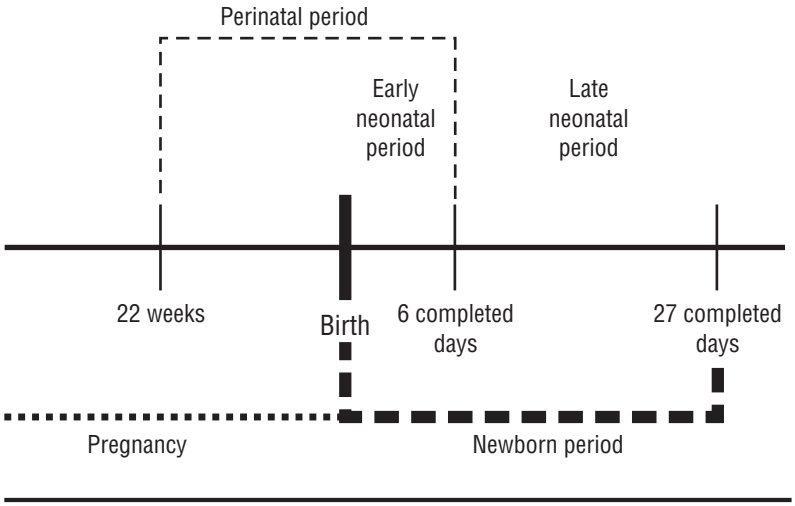
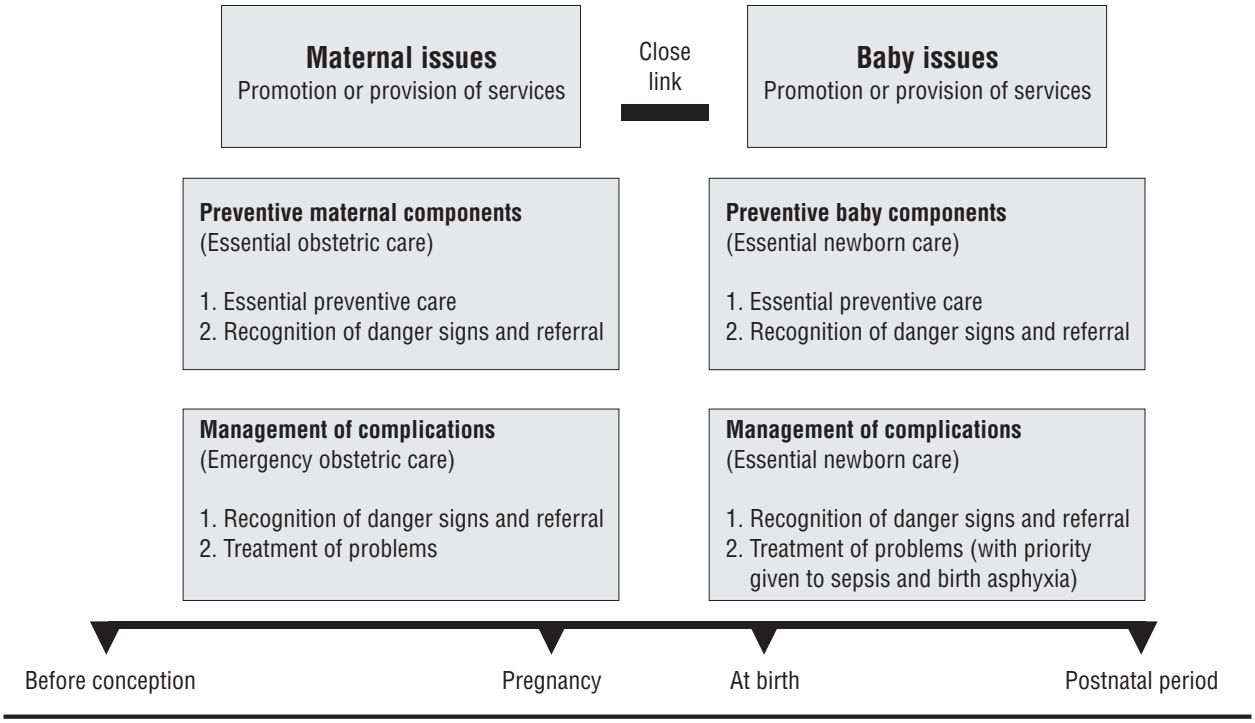


Figure 2. Essential Newborn Care Components: The "What"



Prioritization of Components

Table 1 outlines a large number of components for optimal newborn health. However, it may not be feasible to implement all components simultaneously. Components should be prioritized according to local needs, and implemented in a phased manner or by linking with suitable partners. Criteria for selection of components to be implemented in initial and subsequent phases include:

- Existing infant and neonatal mortality rates. Generally, as infant mortality decreases, neonatal mortality as a proportion of infant mortality increases. With lower infant mortality rates, countries and organizations are more likely to be ready to implement an increased number of components for improving newborn health;
- Resources that are available or that can be leveraged;
- Likelihood for sustainability and for taking to scale;
- Acceptability with and interest of partners, including the Ministry of Health, after suitable advocacy;
- Existing programs into which newborn health components and strategies can be linked;
- Proportion of facility and home deliveries, and available care providers; and
- Existing infrastructure and quality of services.

Implementation of Essential Newborn Care

In general, it is easier to select ENC interventions to implement (the "what") than to operationalize them (the "how"). Some approaches that have been used include:

- Advocacy (at all levels and at every stage);
- Situational analysis of key issues within the country or area;

Table 1. Improving Newborn Health: The Essential Newborn Care Components

Before Conception

- Adequate care of the female child, including nutrition, education, and health care.
- Immunization, including tetanus toxoid.
- Folate supplementation.
- Birth spacing.
- Prevention of sexually transmitted infections (STIs).
- Avoidance of substance abuse, including avoidance of smoking and alcohol use.

Antenatal Period

- At least four visits with an emphasis on goal-oriented or focused antenatal care.
- Tetanus toxoid.
- Iron and folate.
- Adequate nutritious diet.
- Extra rest.
- Consumption of iodized salt by the family.
- In areas where malaria is endemic:
  - Mother (later with the baby) sleeps under an insecticide-treated bednet; and
  - Mother takes intermittent presumptive therapy.
- Detection and treatment of STIs such as syphilis and gonorrhea.
- Interventions for HIV/AIDS, including voluntary counseling and testing.
- Birth preparedness:
  - Determination of place of delivery with the health care provider;
  - If home delivery: (a) adequate linen, washed and sun-dried—at least five pieces of cloth for delivery (may include a plastic sheet for the mother); (b) clean new blade kept in its wrapper until the moment of use; and (c) clean cord ties. All these items should be kept in a clean container;
  - Setting aside of or arrangements to get money for going to a facility for planned delivery or for emergencies in the mother and baby; and
  - Identification of the facility and transportation to be used in case of an emergency.
- Early detection of problems or emergencies in the mother and appropriate referral to and care-seeking at a suitable facility.
- Treatment of problems in the mother.

At and Soon after Birth (Up to about Six Hours)

- Skilled birth attendant following clean delivery practices and supported by an enabling environment (skills, supplies, and suitable referral facilities).
- Application of principles of the prevention of mother-to-child transmission (PMTCT) of HIV/AIDS strategy to the baby and the care provider.
- Detection of problems and emergencies in the mother and appropriate referral and care-seeking.
- Treatment of problems in the mother.
- Essential preventive care of the baby:
  - Cleanliness and prevention of infection;
  - Temperature maintenance;
  - Eye care;
  - Cord care;
  - Early initiation of breastfeeding (within one hour) without pre-lacteal feeds, and advice for subsequent, frequent exclusive breastfeeding on demand day and night; and
  - Extra care for the low birthweight baby.
- Resuscitation at site of babies who do not breathe properly at birth.
- Detection and referral and appropriate care-seeking for babies with danger signs.

Postnatal Period

- Consultation(s) with mother and baby early in the first week, at least once before day 3, and followed up as required.
- Continued essential preventive newborn care, including support for exclusive breastfeeding on demand, temperature maintenance, cord care, etc.
- Continued application of inputs for PMTCT activities, including feeding and other support such as antiretroviral therapy, counseling, and nutrition.
- Postnatal vitamin A for the mother and continued use of iron and folate and intermittent therapy for malaria (where malaria is endemic), according to recommendations of the Ministry of Health.
- Counseling for nutrition, family planning, and prevention and treatment of STIs.
- Detection of danger signs and appropriate referral and care-seeking.* The first four or five signs are more commonly used, especially in the community:
  - Poor sucking or not sucking;
  - Inactivity or lethargy—often denoted by families as "loose-limbed" in several languages;
  - Fever or hypothermia;
  - Respiratory distress;
  - Convulsions;
  - Vomiting;
  - Abdominal distension;
  - Severe umbilical infection (redness or swelling of the skin surrounding the base of the cord or a foul smell); a slight pus discharge may often be considered a minor infection that can be treated locally;
  - Jaundice reaching the palms and soles;
  - Extensive pustules or skin infection; and
  - Swollen eyelids with pus discharge.
- Detection of minor problems, local treatment where necessary, and follow-up including referral, if needed, for:
  - Conjunctivitis;
  - Minor umbilical infection;
  - Pyoderma or skin infection;
  - Thrush; and
  - Jaundice.

*Organizations or programs have selected different signs and varying numbers of signs; however, the fewer the danger signs, the easier it is for health workers to recall them and inform families if they occur. This prioritization of danger signs is useful, particularly for those working at peripheral centers and in communities.

- Use of existing programs, resources, and care providers;
- Collaboration, coordination, and consensus-building with partners;
- Health system strengthening:
  - Competency-based capacity-building;
  - Improvement of pre-service education;
  - Supervision;
  - Drugs and supplies; and an
  - Improved referral/counter-referral system.
- Community-based interventions:
  - Capacity-building of community health workers and volunteers including traditional birth attendants;
  - Supervision of community health workers and volunteers;
  - Provision of supplies; and
  - Social mobilization including participation from community-based organizations.
- Multi-channel communication for appropriate behavior at all levels, including targeting of policymakers, community leaders, and care providers at facility and community levels.
- Linkage with or coordination between groups, strategies, and sites, such as a link between communities, facilities, and public and private sectors for a continuum of care; and
- Monitoring and evaluation as part of an ENC program, with emphasis on the use of data to identify gaps and implement adaptations.

Conclusion

In brief, key strategies to improve newborn health include:

- Prioritization of ENC interventions according to local requirements, with gradual phasing-in of interventions not initially included;
- Integration of ENC with existing maternal and child survival programs in a way that maintains *clear visibility of newborn health issues* in order to attain the necessary impact on neonatal morbidity and mortality; and
- Implementation that addresses at inception key issues such as sustainability and scale.

Strategies like these will have a greater impact on neonatal mortality rates and, in turn, on infant mortality rates, which will represent an important step toward achieving the Millennium Development Goals.

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