

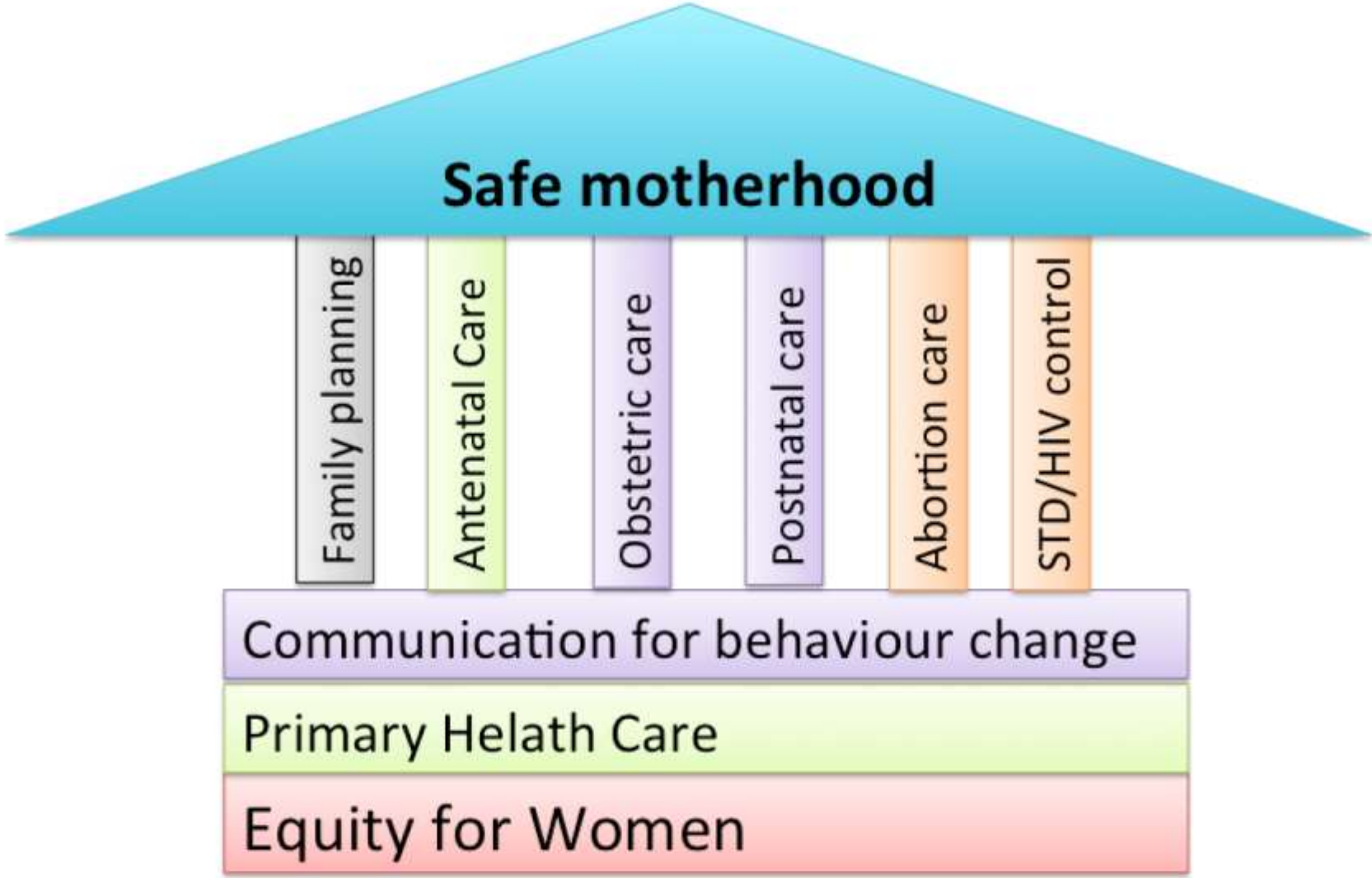
Maternal Healthcare



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SAFE MOTHERHOOD (WHO)

- A global effort aims to reduce deaths and illnesses among women and infants, especially in developing countries. (A human right)
- Interaction of medical and non-medical factors.
- **'mother–baby package'** : interventions including family planning to prevent unwanted and mistimed pregnancies, basic maternity care for all pregnancies, special care for the prevention and management of complications during pregnancy, delivery and postpartum for the mother and her newborn baby.
- **Essential services for safe motherhood** should be available through a network of community health-care providers, clinics and hospitals.



RECAP

Components of Maternal care

Antenatal care
services
(ANC)



Delivery care
services



Postnatal care
services
(PNC)

Antenatal Care

ANC is critical

Antenatal care (ANC)

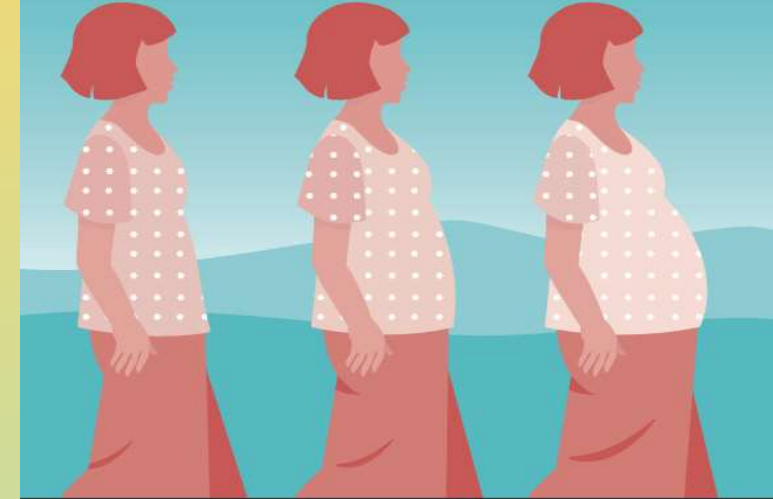
is the care provided by skilled health-care professionals to pregnant women in order to ensure a positive pregnancy experience and the best health conditions for both mother and baby during pregnancy

- ❑ **Reduces complications from pregnancy and childbirth.**

- ❑ **Reduces stillbirths and perinatal deaths.**

- ❑ **Integrated care delivery throughout pregnancy**

WHO recommendations on antenatal care for a positive pregnancy experience



Antenatal Care



**Women want a
Positive
Pregnancy
Experience
from ANC**

- ✓ A healthy pregnancy for mother and baby (including preventing or treating risks, illness and death)
- ✓ Physical and sociocultural normality during pregnancy
- ✓ Effective transition to positive labour and birth
- ✓ Positive motherhood (including maternal self-esteem, competence and autonomy)

Medical care; relevant and timely information; emotional support and advice

Antenatal Care

WHO's 2016 ANC Model

Previously: The 4-visit WHO ANC model Carried out at four critical times. It was also known as the Focused Antenatal Care Model (FANC).

Currently: because perinatal deaths increased with only four ANC visits + an increase in the number of ANC contacts is associated with an increase in maternal satisfaction → WHO recommends a minimum of **eight contacts**.

WHO systematic review of randomised controlled trials of routine antenatal care

Guillermo Carrón, José Villar, Gilda Piaggio, Dina Khan-Nestor, Martin Güemezoglu, Miranda Mugford, Pisake Lumbiganon, Ubaldino Farnot, Per Bergsjö, for the WHO Antenatal Care Trial Research Group

Summary

Background There is evidence of the effectiveness of the standard antenatal care model. The effectiveness of different models of care, with or without visits, with or without effective as the standard clinical outcomes, perinatal mortality, and maternal mortality.

Methods The interval lower number of visits antenatal visits prophylactic eclampsia, urinary maternal mortality. We also selected this and cost-effective strategy developed by Group of the Cochran

Findings Seven trials identified. 57 418 + 30 799 in the new model and 26 619 in the outcome data. There reduced number of visits for pre-eclampsia (0.66-1.26), urinary postpartum anaemia (0.55-1.51), or low birth weight of perinatal mortality outcome did not all attained. Some less women in more developed new model. The cost than that of the standard

Interpretation A model visits, with or without introduced into clinics but some degree of expected. Lower cost

Lancet 2011; 367: 11
See Commentary page

Introduction

There is a lack of strong evidence that the content

Articles

WHO antenatal care randomised trial for the evaluation of a new model of routine antenatal care

José Villar, Hassan Ba'aqeel, Gilda Piaggio, Pisake Lumbiganon, José Miguel Bojón, Ubaldino Farnot, Yagob Al-Macrou, Guillermo Carrón, Alan Pinol, Alan Donner, Ana Langer, Gustavo Njenda, Miranda Mugford, Julia Fox-Rushby, Guy Hutton, Per Bergsjö, Leif Bakketeig, Heinz Berendes, for the WHO Antenatal Care Trial Research Group*

Summary

Background We undertook a multicentre randomised controlled trial that compared the standard model of antenatal care with a new model that emphasises actions known to be effective in improving maternal or neonatal outcomes and has fewer clinic visits.

Methods Clinics in Argentina, Cuba, Saudi Arabia, and Thailand were randomly allocated to provide either the new model (27 clinics) or the standard model (27 clinics) for the trial. All women pregnant at the time of randomisation were enrolled in clinics offering the new model. The basis of history of previous visits who did not require further visits were offered the basic package of care. Those deemed at high risk for complications, however, were offered the standard model. The primary outcomes were eclampsia/eclampsia, haemoglobin, and time to delivery. We also assessed the cost of care.

*Other members listed at end of text

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WHO PROGRAMME TO MAP BEST REPRODUCTIVE HEALTH PRACTICES



WHO Antenatal Care Randomized Trial:
Manual for the Implementation of the New Model

Antenatal Care

2016 WHO ANC model



WHO FANC model	2016 WHO ANC model
<i>First trimester</i>	
Visit 1: 8-12 weeks	Contact 1: up to 12 weeks
<i>Second trimester</i>	
Visit 2: 24-26 weeks	Contact 2: 20 weeks Contact 3: 26 weeks
<i>Third trimester</i>	
Visit 3: 32 weeks Visit 4: 36-38 weeks	Contact 4: 30 weeks Contact 5: 34 weeks Contact 6: 36 weeks Contact 7: 38 weeks Contact 8: 40 weeks
Return for delivery at 41 weeks if not given birth.	

Antenatal Care

WHO Recommendations on Antenatal Care for a Positive Pregnancy Experience (2016 global recommendations)

- Priority to person-centred health care.
- Should be adaptable and flexible so that countries (with different settings, burdens of disease, social and economic situations, and health-system structures) can adopt and implement the recommendations based on their country context and populations' needs.

WHO Recommendations on Antenatal Care for a Positive Pregnancy Experience (2016 global recommendations)

- A minimum of **eight contacts** are recommended to reduce perinatal mortality and improve women's experience of care.
- Healthy eating and keeping physically active during pregnancy is encouraged.
- Daily oral iron and folic acid supplementation (**400 µg (0.4 mg) folic acid**) for pregnant women to prevent maternal anaemia. Folic acid should be started as early as possible (Before conception → prevent neural tube defects)
- Caffeine is a stimulant (tea, coffee, soft drinks, chocolate, and some over-the-counter medicines). Pregnant women should be informed that a daily intake of over 300 mg of caffeine is probably associated with a higher risk of pregnancy loss and having a low-birthweight newborn.

WHO Recommendations on Antenatal Care for a Positive Pregnancy Experience (2016 global recommendations)

- Ask about tobacco use (past and present) and exposure to second-hand smoke as early as possible in pregnancy and at every ANC visit.

WHO Recommendations on Antenatal Care for a Positive Pregnancy Experience (2016 global recommendations)

- **Tetanus toxoid vaccination** is recommended for **all** pregnant women to prevent neonatal mortality from tetanus.
 - – If a pregnant woman has not previously been vaccinated or if her immunization status is unknown → two doses of tetanus toxoid-containing vaccine (TTCV) 1 month apart, with the second dose given at least 2 weeks before delivery.
 - – In most people, two doses protect against tetanus infection for 1–3 years. A third dose is recommended 6 months after the second dose, which should extend the vaccine's protection to at least 5 years.
 - – Two further doses for women who are first vaccinated against tetanus during pregnancy should be given after the third dose, in the 2 subsequent years or during two subsequent pregnancies.
 - • If a woman has received one to four doses of a TTCV in the past, she should receive one dose of TTCV during each of her subsequent pregnancies, for a total of five doses (five doses protects a woman throughout the childbearing years).

for women of childbearing age

Dose	When to give	Expected duration of protection
TT 1	at first contact or as early as possible in pregnancy	none
TT 2	at least 4 weeks after TT 1	1 - 3 years
TT 3	at least 6 months after TT 2	5 years
TT 4	at least one year after TT 3 or during subsequent pregnancy	10 years
TT 5	at least one year after TT 4 or during subsequent pregnancy	All childbearing years

Anemia in pregnancy:

- Defined in pregnancy as a Hb concentration of less than 110 g/L (less than 11 g/dL).
- **Predisposing factors :**
 - Iron Deficiency (IDA) (most common), malabsorption , increase body demand with pica and repeated vomiting.
 - Infections (e.g. malaria, hookworm),
 - Chronic diseases (e.g., HIV).
 - Antepartum hemorrhage.

Anaemia in pregnancy:

Complications of severe anemia:

Maternal complications :

1. Cardiac failure
2. Increasing fatality due to ante-partum or post-partum hemorrhage.
3. Infections e.g. puerperal sepsis due to reduction of immunity.

Fetus / newborn complications:

1. Low birth weight, intra uterine growth retardation.
2. Asphyxia
3. Still birth
4. Increase peri-natal mortality .

Recommendations for management of IDA in pregnancy

- Full blood count should be assessed at least at booking and at 28 weeks.
- Give dietary information to maximize iron intake & absorption.
- Routine iron supplementation for all women in pregnancy is recommended. (Minimum dosage should be **30-60 mg of elemental iron a day**).
- Women with iron deficiency anaemia (IDA) should be given **100–200 mg elemental iron daily**.
- Referral to secondary → if there are significant symptoms / severe anaemia (Hb<7.0 g/dL), late gestation (>34 weeks), or if there is failure to respond to oral iron.
- Once Hb in the normal range, supplementation **should continue for 3 months & at least until 6 weeks postpartum** to refill iron stores.

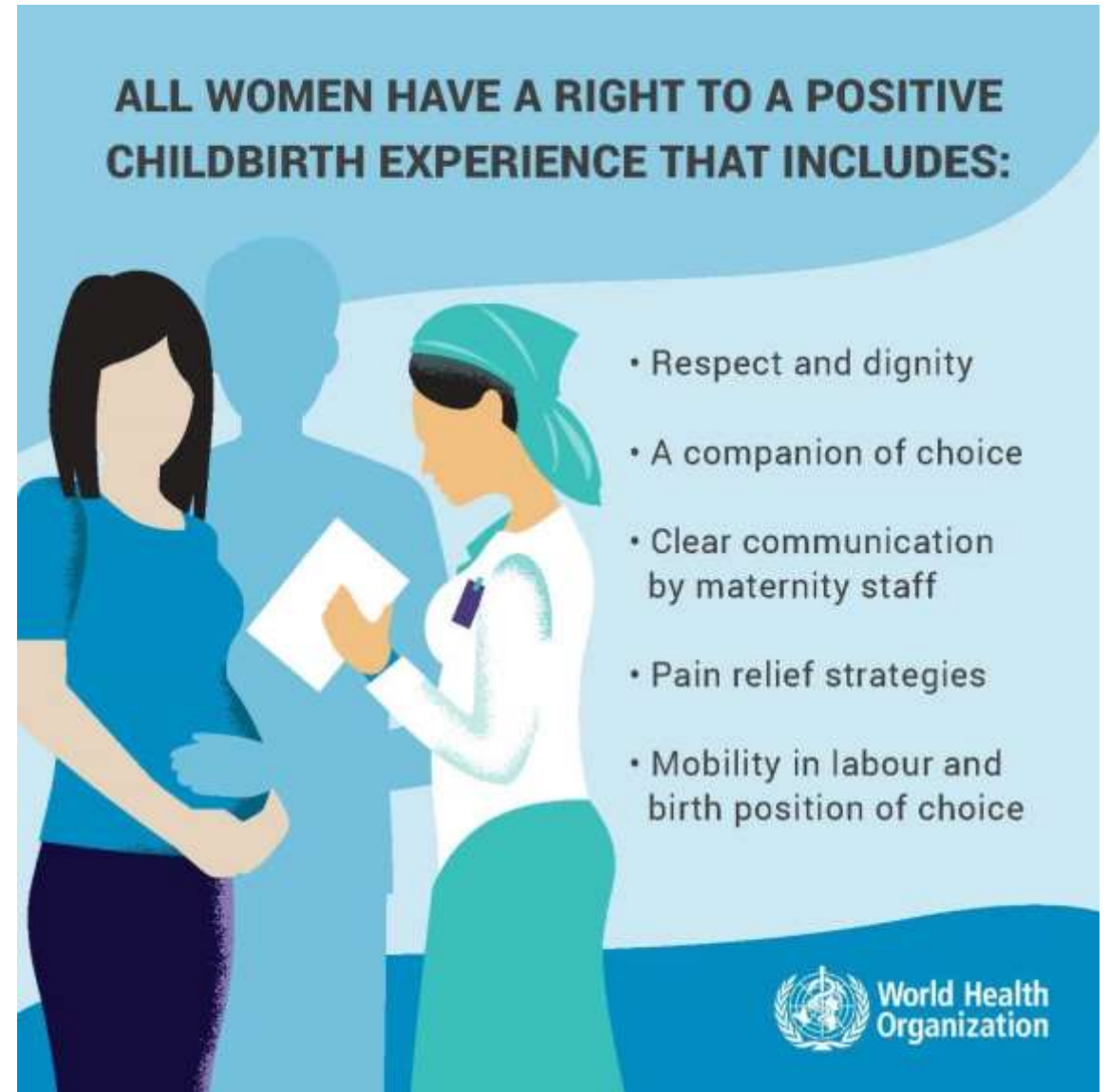
Ultrasound scan during pregnancy

- An ultrasound (U/S) scan before 24 weeks' gestation (**early ultrasound**) is recommended for all pregnant women to:
 - ❖ estimate gestational age
 - ❖ detect fetal anomalies & multiple pregnancies
 - ❖ improve the maternal pregnancy experience
- An (U/S) scan after 24 weeks' gestation (**late ultrasound**) is not recommended for pregnant women who had an early (U/S).
- (U/S) is used for other indications (e.g. obstetric emergencies) or in other medical departments



Intrapartum (delivery) care for a positive childbirth experience

- **1. Respectful maternity care** – maintains their dignity, privacy & confidentiality, ensures freedom from harm & mistreatment, & enables informed choice & continuous support during labour & childbirth.
- **2. Effective communication** between maternity care providers & women in labour. (simple & culturally acceptable methods).
- **3. A companion of choice** is recommended throughout labour and childbirth.
- **4. Pain relief strategies:** depending on a woman's preferences
- 5. Encouraging the adoption of **mobility** & an upright position during labour in women at low risk.



Post-Natal Care (PNC)

- The postnatal period—is a critical phase in the lives of mothers and newborn babies.
- **“Postnatal Period” should be used for all events occurring to the mother & the baby after birth up to 6 weeks (42 days).**

Post-Natal Care (PNC)

- The postnatal care services are designed to monitor the recovery process, to detect and deal with any abnormalities.

Aims:

1. Mother should be protected against hazards (e.g., puerperal infection)
2. Postnatal care; an opportunity to introduce family planning → reduce the risk of the early occurrence of another pregnancy.
3. An opportunity to establish breast-feeding.

WHEN and HOW MANY postnatal visits should occur?

Provide postnatal care in first 24 hours for every birth:

- Early visits are crucial because the majority of maternal & newborn deaths occur in the first week, especially on the first day, & this period is also the key time to promote healthy behaviours
- After an uncomplicated vaginal birth in a health facility, healthy mothers & newborns should stay for at least 24 hours after birth.

So every mother & baby a total of four postnatal contacts on:

- ✓ First day (24 hours)
 - ✓ Day 3 (48–72 hours)
 - ✓ Between days 7–14
 - ✓ Six weeks after birth.
- **Issues or concerns** (e.g. LBW or mothers have HIV) should have two or three visits in addition to the routine visits.

PNC recommendation for the mother:

- Assess & check for bleeding, check temperature
- Support breastfeeding, checking the breasts to prevent mastitis.
- Manage anaemia.
- Complete tetanus toxoid immunisation, if required.
- At 10–14 days after birth → ask about resolution of mild, transitory postpartum depression (“maternal blues”).



PNC recommendation for the newborn:

- Babies should be dried thoroughly & their breathing assessed immediately at birth
- Cord should be clamped & cut only after 1–3 minutes, unless the baby needs resuscitation.
- 1st hour after birth → skin-to-skin contact with the mother for warmth & initiation of breastfeeding.
- Exclusively breastfed (EBF) **0-6 months of age**. Mothers should be counselled & provided support for EBF at each postnatal contact.
- A full clinical examination (e.g., weight, danger signs, eyes, cord) after first breastfeed.
- Give vitamin K prophylaxis and hepatitis B vaccination as soon as possible after birth (within 24 hours).

In Jordan, (Jordan Population and Family Health Survey 2017-18)

- In Jordan, 98% of women received **ANC** from a skilled provider (doctor, nurse, or midwife) during the pregnancy.
- 28% of women received the number of tetanus toxoid injections required to provide full protection
- **Delivery Care :** 98% of all births occurred in a health facility
- **Postnatal Care:** 8 in 10 women received PNC within two days after delivery.

FYI

- <https://kaa.moh.gov.jo/Echobusv3.0/SystemAssets/c17233e7-1d70-4be9-a3a2-45ab29ae37c8.pdf>

THANK YOU

