The image shows the cover of a WHO report. The background is a solid blue color. On the left side, there is a vertical strip with a lighter blue background containing a photograph of a woman holding a newborn baby. The title of the report is written in white text on the blue background. At the bottom left, there is the WHO logo and the text 'World Health Organization'. In the center, there are three white arrows pointing to the right.

WHO recommendations on  
interventions to improve  
preterm birth outcomes

# WHO recommendations on interventions to improve preterm birth outcomes (2015)

**Dr Matthews Mathai**

Department of Maternal, Newborn, Child and Adolescent Health



World Health  
Organization

# Preterm birth – a global problem

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- Approximately 15 million liveborn preterm babies
- 1 million deaths due to complications of preterm birth
- Leading cause of newborn death



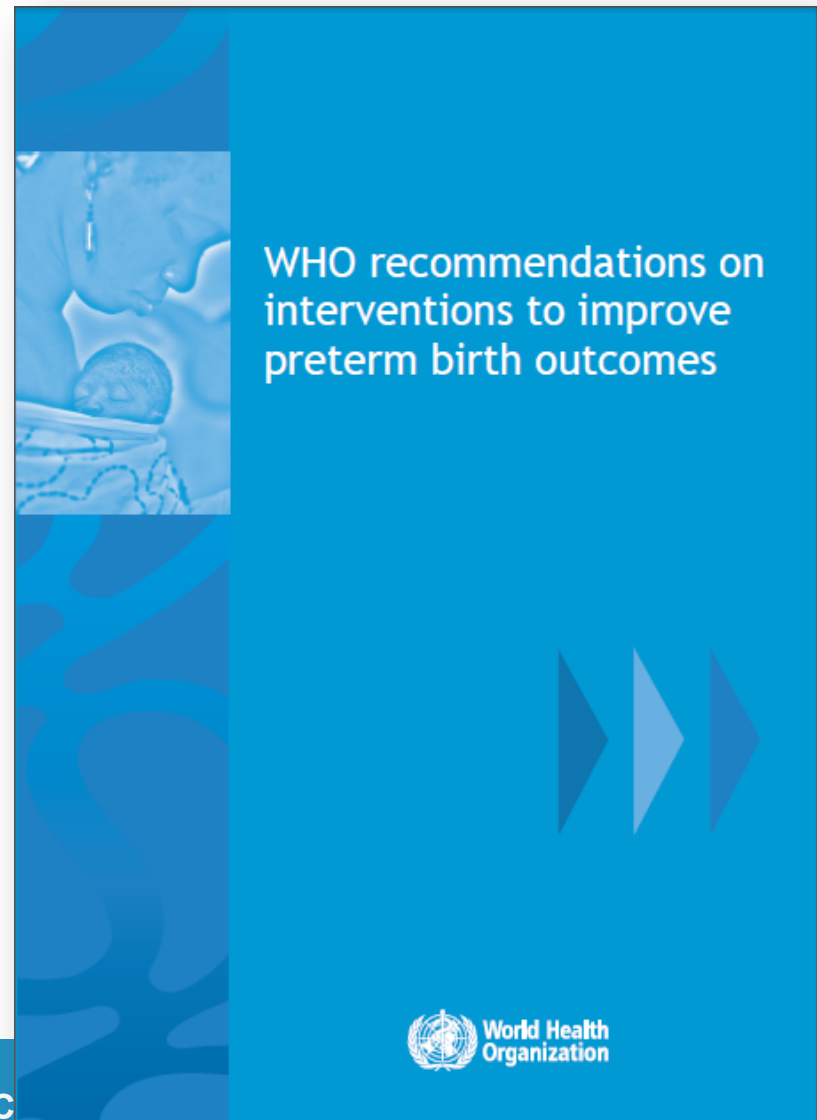
# Global burden of preterm birth

- The highest preterm burden in the countries least equipped to address it
- More than 60% of all preterm births globally occurred in Sub-Saharan Africa and South Asia



# Purpose of the WHO preterm birth guideline

- To provide evidence-based recommendations on interventions during pregnancy, labour and during the newborn period that are aimed at improving outcomes for preterm infants
- To inform the development of protocols and health policies and not intended to provide a comprehensive practical guide for the management of preterm labour and preterm infants



# Guideline scope – population and interventions

- Population

- pregnant women at **imminent risk** of preterm birth (<37 weeks gestation) and preterm babies immediately after birth in all settings

- Interventions

- Antenatal corticosteroids
- Tocolytics
- Magnesium sulfate for fetal neuroprotection
- Antibiotics for PTL with intact/ruptured membranes
- Optimal mode of birth
- Thermal care (KMC, plastic wraps)
- Continuous Positive Airway Pressure (CPAP)
- Surfactant
- Oxygen therapy

Maternal

The diagram consists of two light blue rounded rectangular boxes on the right side. The top box is labeled 'Maternal' and is connected to the first five intervention items (Antenatal corticosteroids, Tocolytics, Magnesium sulfate, Antibiotics, and Optimal mode of birth) by a light blue bracket. The bottom box is labeled 'Newborn' and is connected to the remaining seven intervention items (Thermal care, CPAP, Surfactant, and Oxygen therapy) by another light blue bracket.

Newborn

# Guideline scope – critical outcomes

## Maternal

- Birth prior to 28, 32, 34 or 37 weeks of gestation
- Pregnancy prolongation (interval between randomization into the study and birth, < 48 hours or < 7 days)
- Severe maternal morbidity or death
- Maternal sepsis (chorioamnionitis, puerperal sepsis)
- Severe adverse effects of treatment

## Newborn

- Neonatal death
- Fetal death or stillbirth
- Perinatal death (fetal or early neonatal death)
- Severe neonatal morbidity
- Birth weight (mean; low or very low)
- Infant or child death
- Long-term morbidity



# Recommended for women with imminent preterm birth (within 7 days)

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- Antenatal corticosteroids (ACS) from 24 to 34 weeks in eligible women, provided certain conditions are met
- Antibiotics for preterm prelabour rupture of membranes (PPROM)
- MgSO<sub>4</sub> for fetal neuroprotection <32 weeks if preterm birth is likely within 24 hours



# ACS for preterm birth – conditions

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- Recommended for women at risk of preterm birth from 24 weeks to 34 weeks of gestation when
  - GA assessment can be accurately undertaken;
  - preterm birth is considered imminent;
  - there is no clinical evidence of maternal infection;
  - adequate childbirth care is available (*including the capacity to recognize and safely manage preterm labour and birth*);
  - the preterm newborn can receive adequate care if needed (*including resuscitation, thermal care, feeding support, infection treatment and safe oxygen use*).



# Not Recommended (maternal)

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- Tocolysis (acute or maintenance) for purpose of improving neonatal outcomes
- Antibiotics for preterm labour with intact membranes
- ACS in women with chorioamnionitis likely to deliver preterm



# Recommended for care of preterm infant

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- Kangaroo mother care when infant weighs 2000 g or less and clinically stable
- Continuous positive airway pressure (CPAP) for preterm infants with respiratory distress syndrome (RDS)
- Surfactant for preterm infants with RDS in facilities meeting minimum criteria
- Start oxygen therapy with 30% oxygen or air (if blended oxygen is not available) during ventilation of preterm infants born  $\leq 32$  weeks
- Progressively higher concentrations of oxygen for neonates undergoing oxygen therapy per defined criteria

# Not Recommended (preterm infant)

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- Prophylactic surfactant before diagnosis of RDS
- Start 100% of oxygen during ventilation of preterm infants born  $\leq 32$  weeks



# Key Messages

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- Preterm birth is the single largest cause of perinatal and neonatal mortality and morbidity and the leading cause of death in children under the age of 5.
- Infant deaths and long-term disabilities following preterm birth can be reduced when interventions are appropriately provided to the mother at imminent risk of preterm birth and to the preterm infant after birth.



# Key Messages

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- Interventions are most effective when applied within a continuum that integrates management of women at risk of imminent preterm birth with postnatal care of preterm infants.
- Accurate gestational age dating is essential to guide appropriate care. Careful attention should be paid to dating of pregnancy with the best method available during early visits for antenatal care.

