



MATERNAL HEALTH INTERVENTIONS FOR REDUCING NEONATAL MORTALITY

**Workshop on building capacity in supporting countries
to include newborn health in child survival strategies**

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WHO - MPS
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Background

- About 50% of neonatal deaths occur in the first day of life, in addition to 3.3 million stillbirths
- Most of these deaths are related to maternal health and survival
- Strengthening maternal services will improve neonatal health and survival





Outline

- Clinical interventions likely to improve neonatal health and survival
- Packages likely to accelerate progress
- Health system and policy interventions





MPS list of interventions

- **Essential:** interventions that are absolutely necessary to satisfy the priority health care needs of women and newborn infants in all countries.
- **Situational:** interventions that are required specifically for women and newborns who live in settings with certain disease patterns
- **Routine:** interventions for all women and newborn infants to be provided preferably at primary health care level at appropriate times.
- **Additional:** interventions for women and newborn infants with complications and problems that can be managed at primary health care level.
- **Specialized / referral:** interventions for severe obstetric, newborn and medical complications, and surgical family planning in the hospital.
- **Advanced:** interventions that are introduced at the primary health care level once quality essential interventions provided to all women and newborn infants. They may be available at the tertiary level of care.





Pre-conception interventions

- Nutrition, folic acid, iron, iodine
- Immunization against tetanus and rubella
- Life style (STIs/HIV prevention, smoke, alcohol, violence)
- Well-spaced and wanted pregnancies





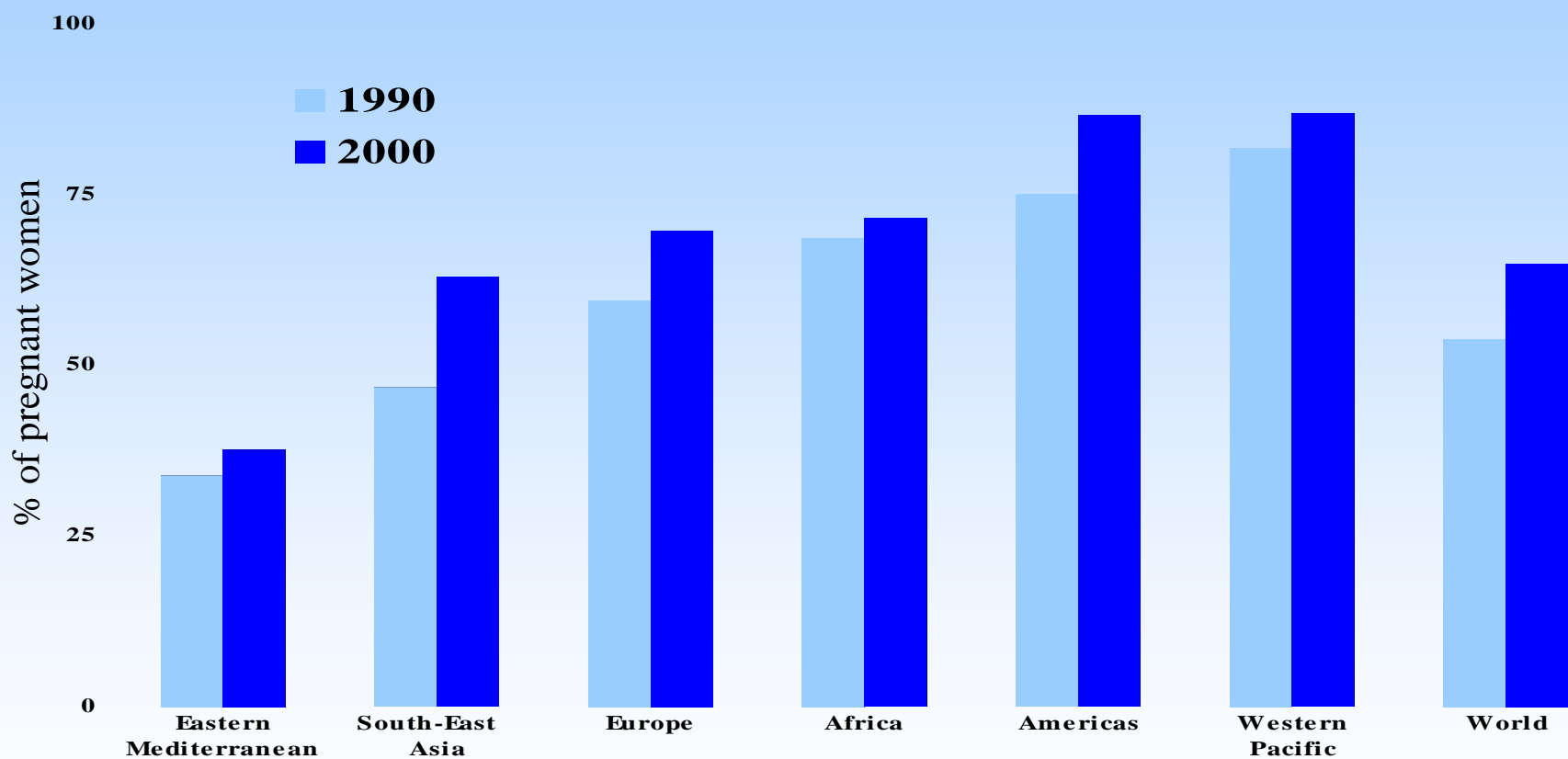
Antenatal care

- **Essential**
 - Tetanus immunization
 - Syphilis testing and treatment
 - Birth and emergency preparedness
 - Early detection and treatment of maternal and fetal complications
 - Information and counselling on self care at home, nutrition, safe sex, healthy lifestyle and breastfeeding
 - Support for women with special needs e.g. adolescents, women living with violence
- **Situational (routine, additional and referral)**
 - Prevention of malaria (IPT and ITN) and treatment of uncomplicated and complicated malaria
 - Voluntary HIV counselling and testing; PMTCT by ART, infant feeding counselling, mode of delivery advice; treatment of opportunistic infections
- **Advanced**
 - Screening and treatment for asymptomatic bacteriuria and infection with streptococcus B (GBS)
 - Screening for rhesus isoimmunization
 - Selective use of ultrasound for diagnosing/confirming complications
 - Folic acid supplementation





Antenatal care is a success story: uptake and demand are on the increase





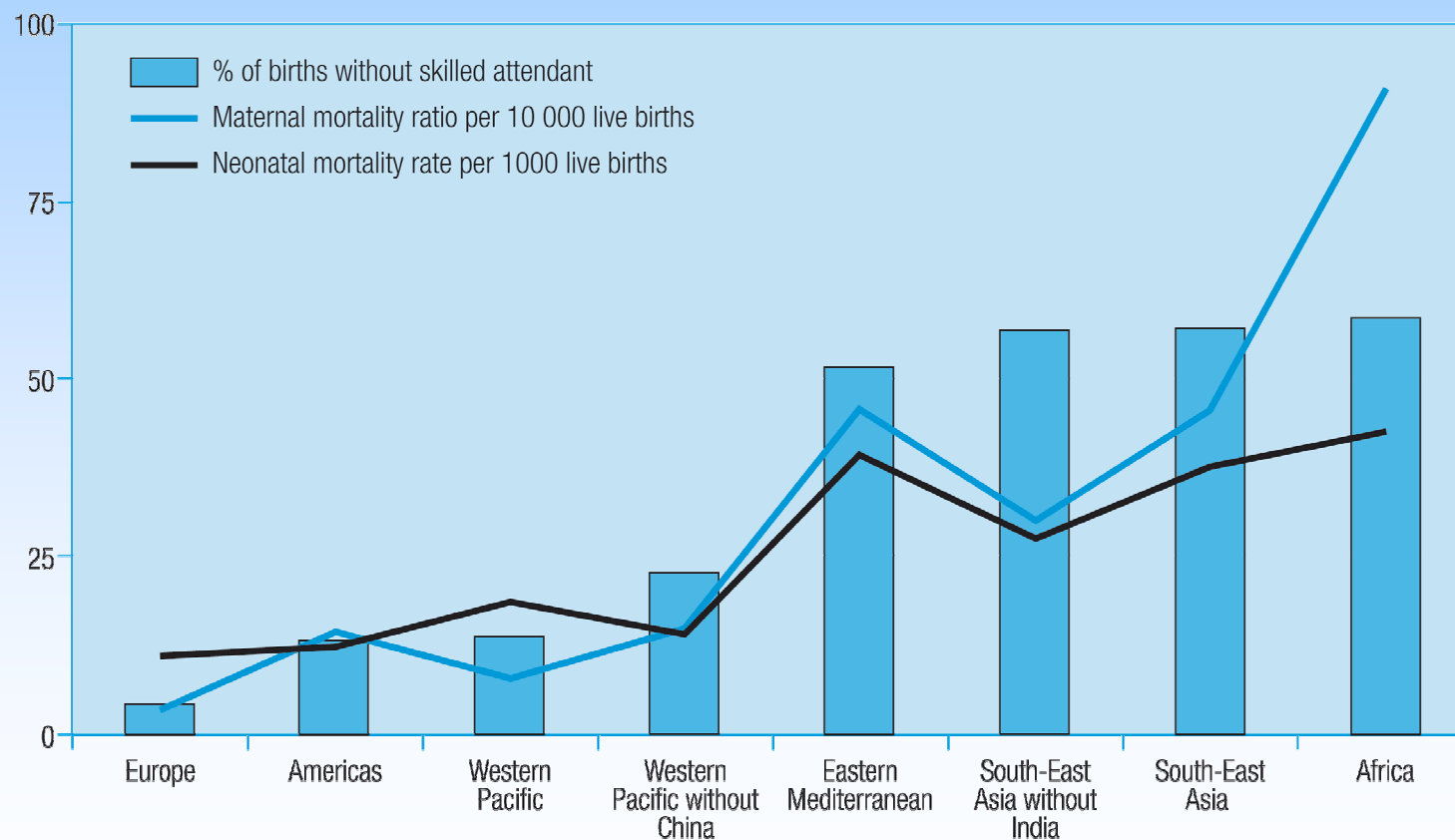
Childbirth

- **Routine**
 - Monitoring progress of labour, maternal and fetal well-being with partograph, provide supportive care and pain relief
 - Early detection and management of delivery and fetal complications
 - Promotion of exclusive breastfeeding
- **Additional - bEmOC**
 - Treatment of mild to moderate complications (e.g. prolonged labour, including vacuum extraction; episiotomy, repair of genital tears, manual removal of placenta)
 - Pre-referral management of severe complications (e.g. obstructed labour, fetal distress, preterm labour, breech presentation, severe peri- and postpartum haemorrhage)
- **Specialized - cEmOC**
 - Treatment of severe complications in childbirth and in the immediate postpartum period (obstructed labour, malpresentation, eclampsia, severe infection, bleeding-including caesarean section, blood transfusion and hysterectomy)
 - Induction and augmentation of labour



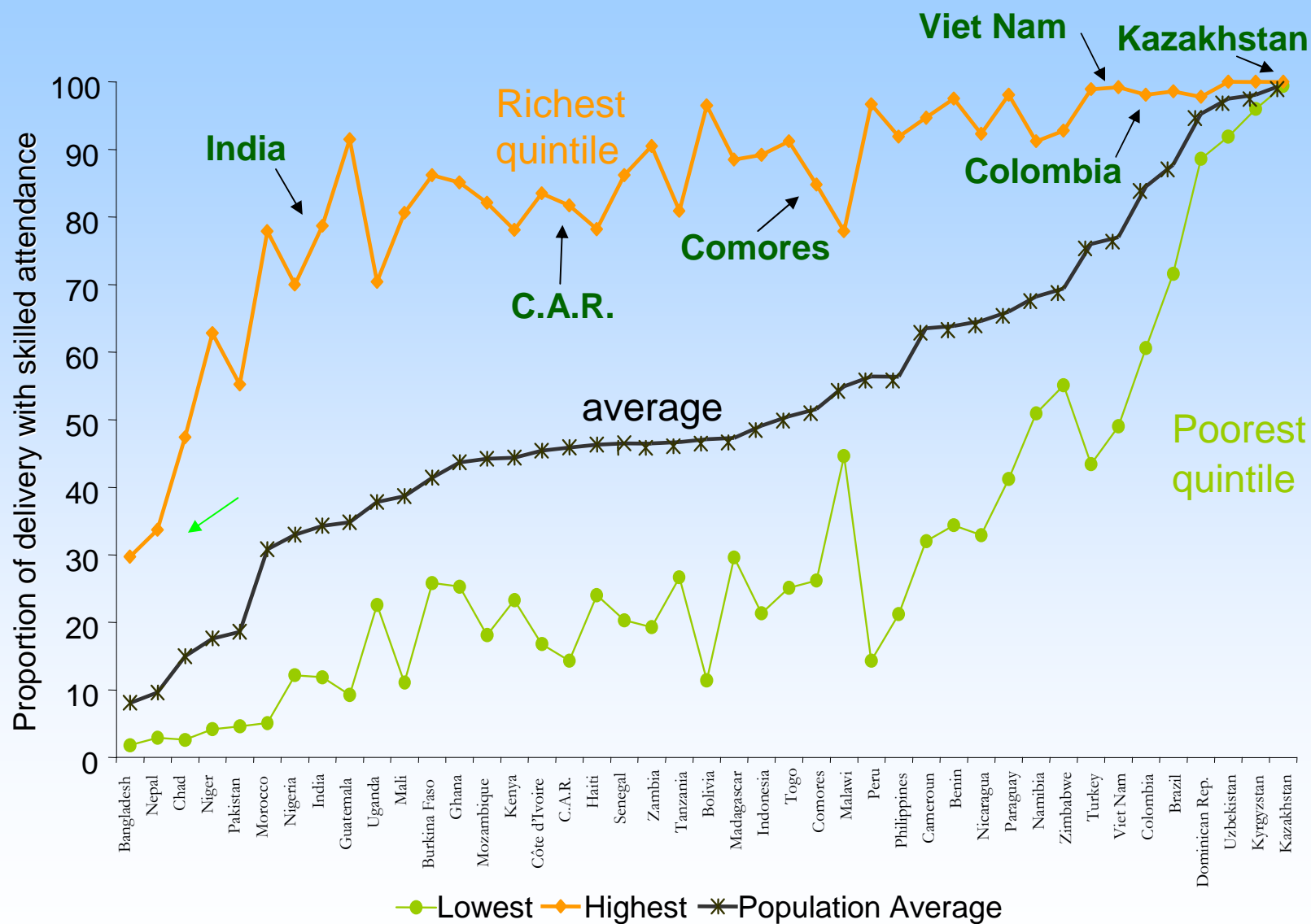


Skilled attendants save newborn lives





Skilled attendants and wealth



(Source: Kunst and Houweling, 2001)
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An Example of advanced intervention

Use of Antenatal Corticosteroids in preterm pregnancies in Latin America

Increasing the use of antenatal corticosteroids in preterm pregnancies from **32%** to **65%**, will:

↓ perinatal mortality rate from **102 per 1,000** to **88 per 1,000** live births

avoid **16,000** deaths in LAC per year





Postnatal care

- Routine
 - Assessment of maternal and neonatal wellbeing
 - Detection of complications (e.g. infections, bleeding, anaemia, postpartum depression)
 - Iron & folate supplementation
 - Information and counselling on nutrition, safe sex, family planning and provision of some contraceptive methods
 - Advice on danger signs, emergency preparedness and follow-up
 - Protection, promotion and support of exclusive breastfeeding
- Additional
 - Management of mild complications (e.g. infections, bleeding, anaemia, postpartum depression)
 - Pre-referral treatment of severe complications
- Specialized
 - Management of severe complications (e.g. infections, bleeding, anaemia, postpartum depression)





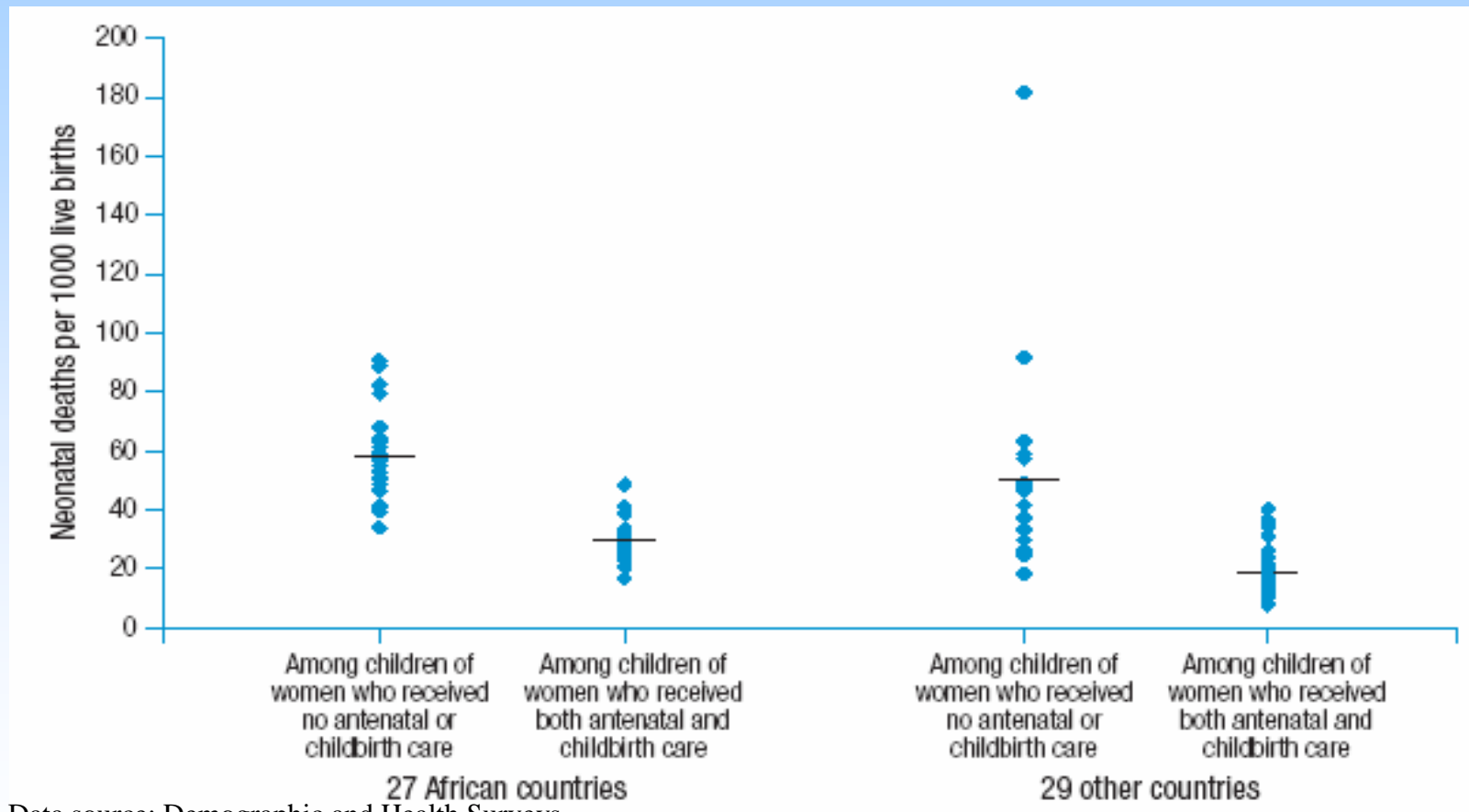
IFC interventions

- Education activities to increase IFC awareness on MNH needs
- Establish mechanisms to assure community engagement in responding to MNH needs, including transport and finance for emergency situations, and to improving the quality of MNH care
- Support for special groups (HIV positive women, adolescents)
- Support from the family during childbirth and immediate postpartum
- Maternity protection in the workplace





Neonatal mortality is lower when mothers benefit from antenatal and childbirth care



Data source: Demographic and Health Surveys.





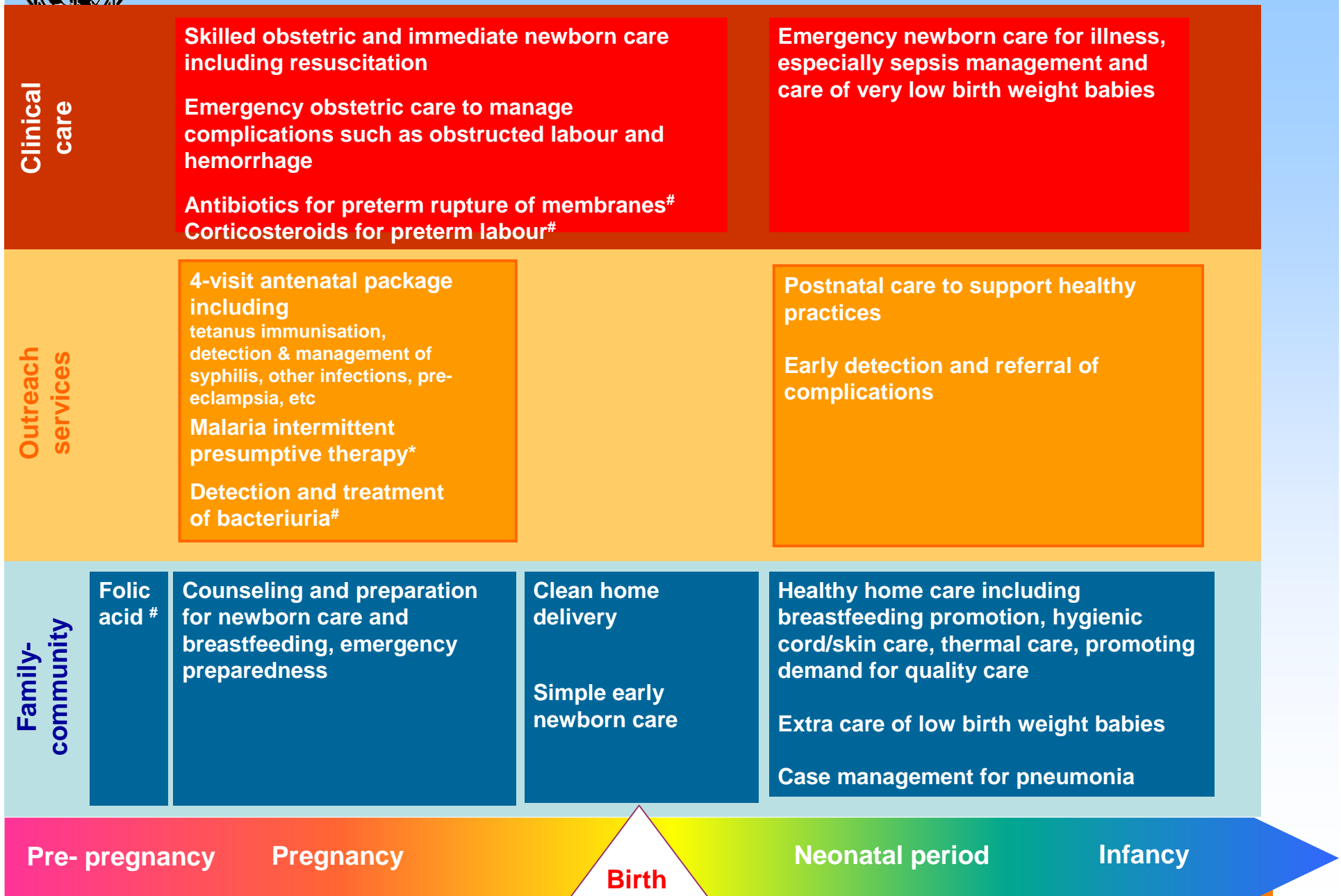
The Lancet Neonatal Survival series

- 16 interventions of proven efficacy on neonatal survival
- 3 delivery systems: family-community, outreach and facility-based
- Universal coverage of the 16 interventions could avert 41-72% of global neonatal deaths





Intervention Packages Lancet





BMJ - Maternal and Neonatal Interventions

Primary-level care including outreach

Selected antenatal care interventions (ANC) combination of 1-4

- 1 Tetanus toxoid (TT)
- 2 Screening for pre-eclampsia
- 3 Screening & treatment of asymptomatic bacteruria
- 4 Screening & treatment of syphilis

Skilled maternal and immediate newborn care (SMNC) combination of 5 -8

- 5 Normal delivery by skilled attendant
- 6 Active management of the third stage of labour
- 7 Initial management of post-partum haemorrhage (PPH)
- 8 Neonatal resuscitation

Referral care level

9. Treatment of severe pre-eclampsia/eclampsia*
10. Antibiotics for pre-term prelabour rupture of membranes (pPROM)*
11. Antenatal steroids for pre-term births*
12. Management of obstructed labour, breech & fetal distress (OL)*
13. Management of severe post-partum haemorrhage (PPH)*
14. Management of maternal sepsis*

Emergency neonatal care (ENC) combination of 15-18

15. Management of very low birth weight babies (vLBW)*
16. Management of severe neonatal infections*
17. Management of severe neonatal asphyxia*
18. Management of neonatal jaundice*

Community-based interventions

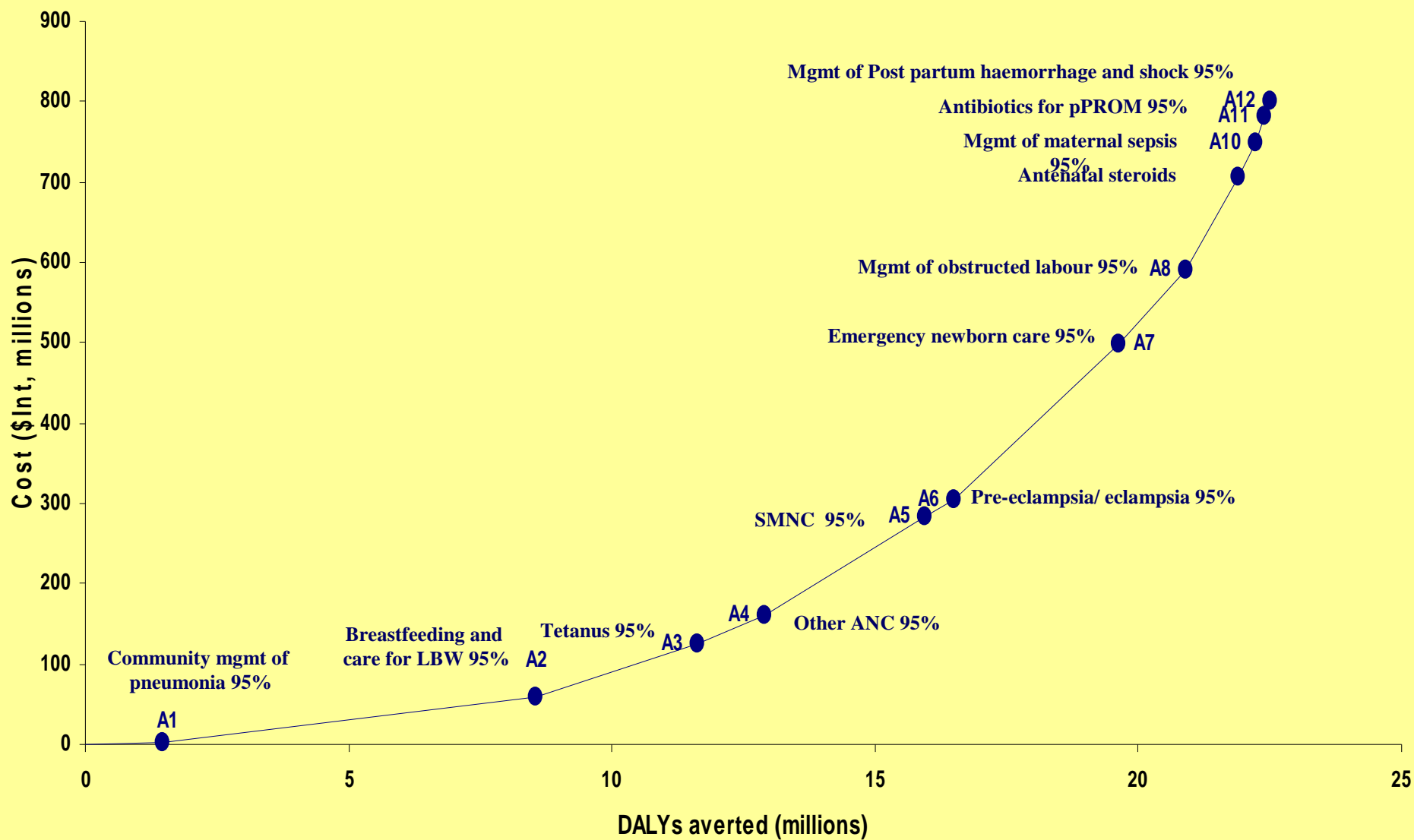
Community newborn care package combination of 19-20

19. Support for breastfeeding mothers
20. Support for low birth weight babies
21. Community-based case management for neonatal pneumonia





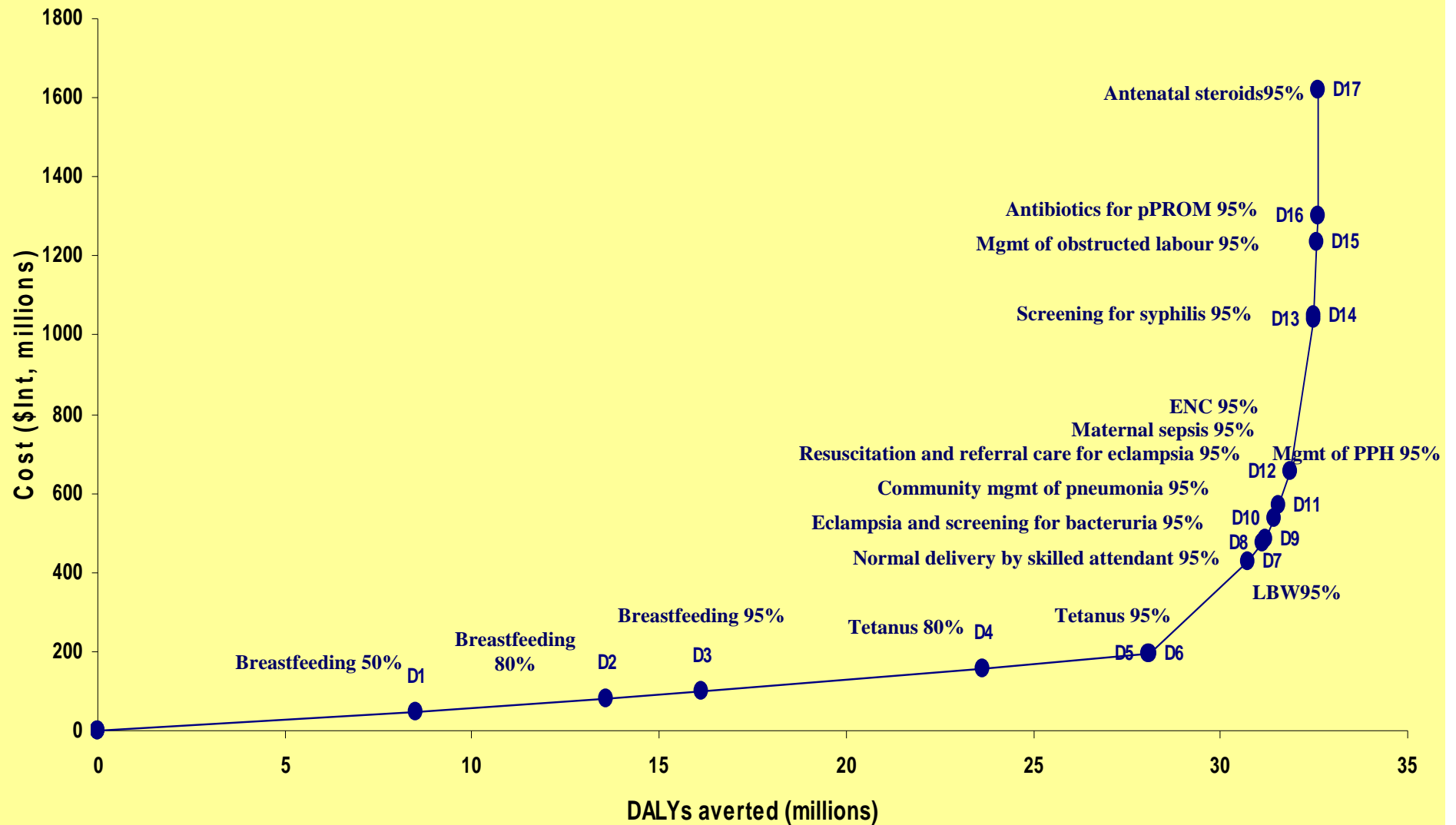
Results for Afr-E region



Afr-E region (High child, very high adult mortality)



Results for Sear-D region



Sear-D region (High child, high adult mortality)

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Limitations

- Not all interventions included, e.g.
 - Family planning & safe abortion
 - Surfactant therapy for respiratory distress syndrome
- Does not measure impact on stillbirths & morbidity from neonatal complications
- Estimates of effectiveness often based on evidence from developed settings





Discussion

- **Most cost-effective mix of interventions was similar in the two regions:**
 - Community-based newborn care package most CE, followed by:
 - Antenatal care
 - Skilled attendance at birth (basic maternal and neonatal care)
 - Referral-level emergency neonatal and obstetric care
- **Coverage of the very CE interventions (ANC, SMNC, community-care) remains low**
 - Where resource availability is extremely limited & unlikely to increase, scale down less CE interventions & reallocate resources to these more CE options
- **However, access to referral-level care will be necessary to achieve the MDGs — scaling up all interventions in this analysis to 95% coverage would halve neonatal and maternal deaths**





Scaling-up will require legal and policy interventions

- To address the human resources crisis
- To achieve universal coverage
- To make it possible for mothers and babies to enjoy the right to survival, the right to health and the right to non-discrimination on the ground of poverty





Thank you



For more information visit MPS website

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