

# World Patient Safety Day

## Safe maternal and newborn care

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## OUR VISION

A world in which every mother and child in India experiences optimal health and well-being, so that every family benefits, now and for future generations



# World Patient Safety Day

## “First, do no harm”

Established in 2019 at the World Health Assembly

1. Enhance global understanding of patient safety
2. Increase public engagement in health care safety
3. Promote global action to prevent and reduce avoidable harm in health care.

### “Safe maternal and newborn care”

*The theme selected for World Patient Safety Day 2021*

**Targets action on the significant burden of risks and harm to the women and newborns due to unsafe care during childbirth.**



# Overview: safe newborn care

- Global context: maternal and newborn safety
- Situation of maternal and newborn safety in India
- Determinants of safe newborn care across care continuum & levels of service delivery
- Interventions for ensuring newborn safety





# Global context: maternal and newborn safety

5.1 million under-5 children died in 2019 globally  
(0.8 million children from India)  
16%

Of all child deaths, 2.5 million deaths occur in the first month of life



80% of all newborn deaths result from three preventable and treatable conditions:

Prematurity  
Birth asphyxia  
Neonatal infections

2.3 million newborns survive each year with disabilities:

Most are preventable

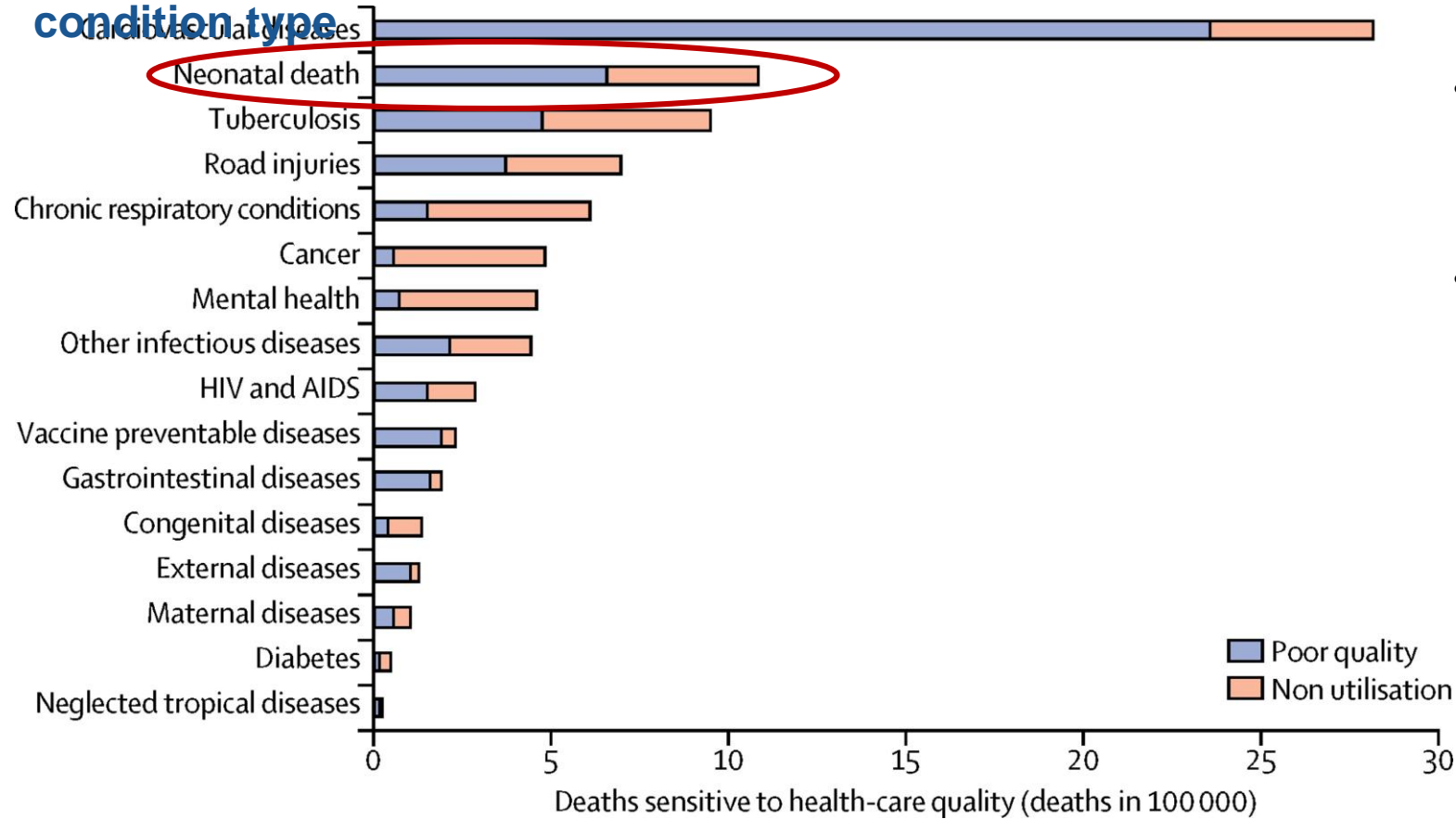
**Poor-quality care accounts for 61% of neonatal deaths and half of maternal deaths**

# Safe newborn care and amenable mortality



# Newborn deaths: non-utilization vs. poor-quality care

## Mortality due to poor quality versus non-utilization of health care by condition type



- After cardiovascular diseases, neonatal deaths lead in terms of deaths due to poor quality of care
- Neonatal deaths sensitive to poor healthcare quality are greater than those due to non-utilization of healthcare services (60:40).

Access is no longer the only binding constraint for improving survival in LMICs—health system quality must be improved simultaneously.

# Improving utilization of services is not enough...

Evidence from low-income countries from Africa and India suggests expanding health care coverage does not necessarily result in better outcomes

Janani Suraksha Yojana, increased coverage of facility birth for more than 50 million women, but incentives have not necessarily greatly improved maternal or newborn survival

Many births under JSY occurred in primary care centres lacking sufficiently skilled staff to address maternal and newborn complications



## ....Ensuring quality of care is critical for patient safety

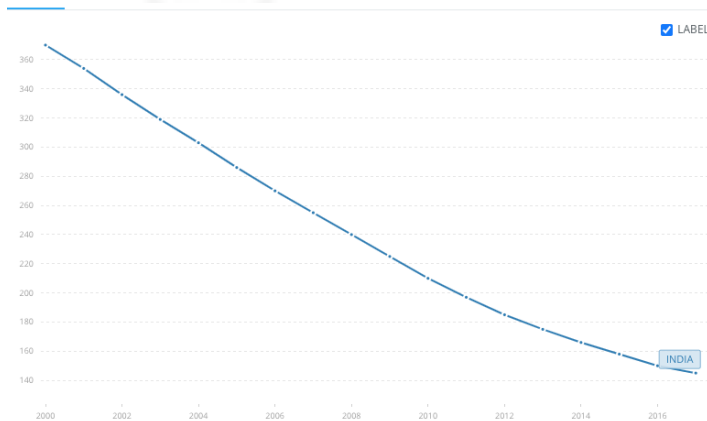


# Situation of Maternal and Newborn Safety in India

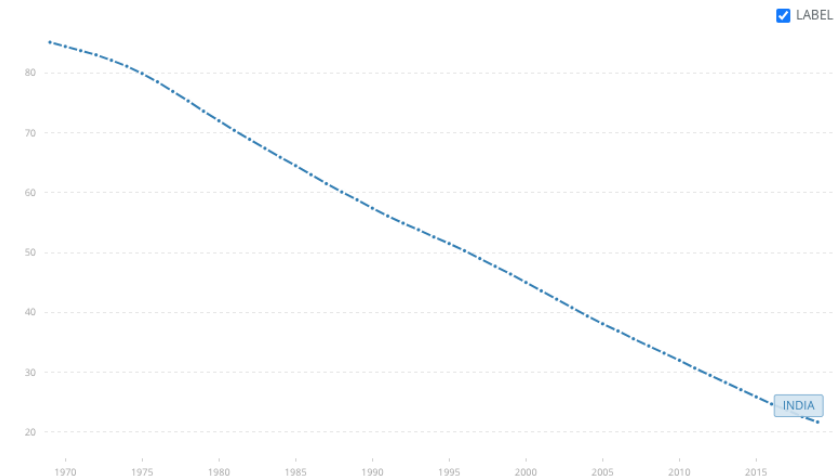
- Over the past two decades, India has made significant progress in reducing maternal and newborn mortality.
- Despite this impressive progress, the burden of maternal and neonatal mortality remains high.



The current Maternal Mortality Ratio (MMR) is 113 per 100,000 live births



The neonatal mortality rate (NMR) is 22 per 1000 live births (2019)



# Contributors to Maternal and Newborn Mortality

Significant proportion of these deaths have been attributed to:

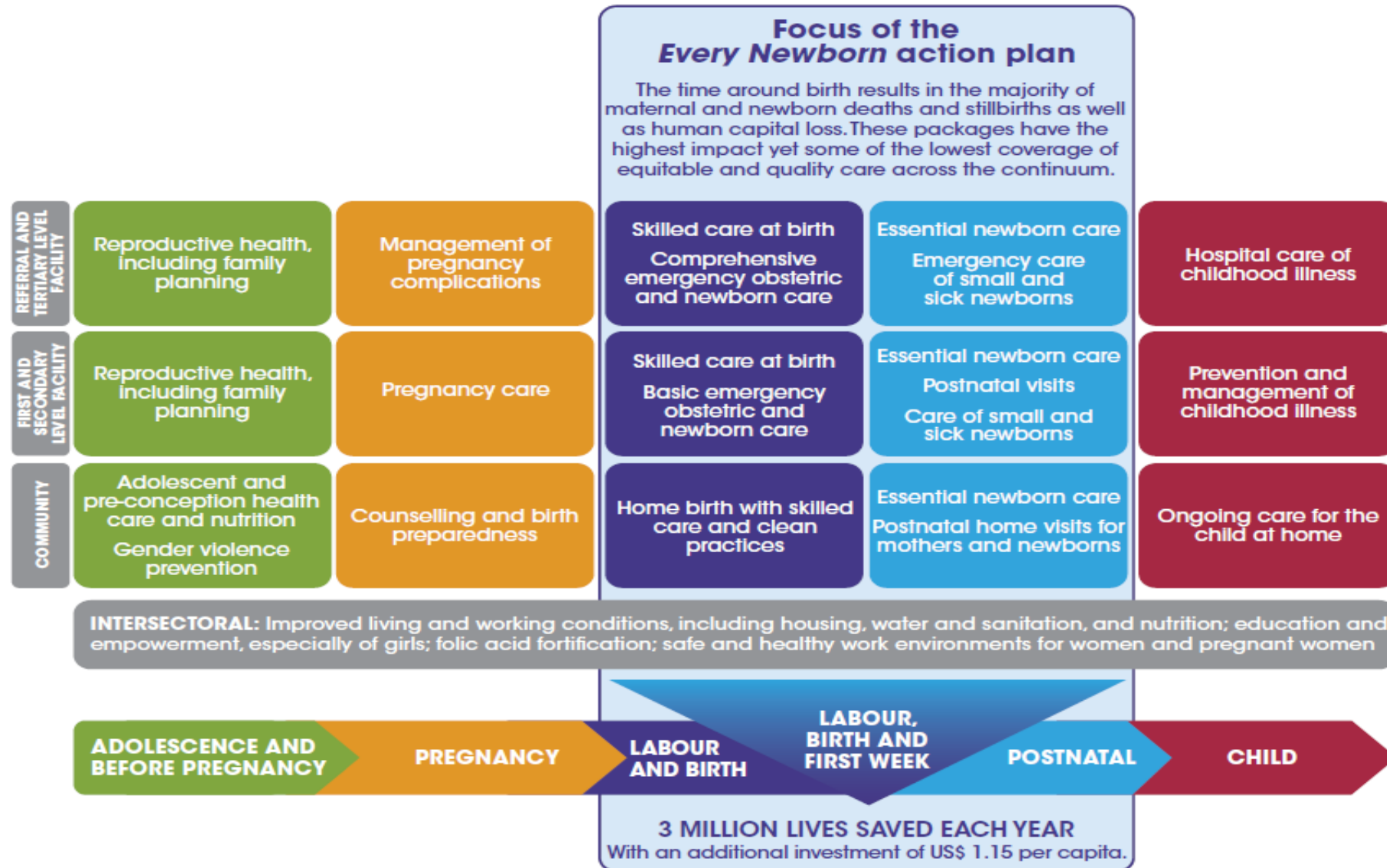
1. Poor quality of clinical care
  2. Inequitable access to health services for women
  3. Inefficient distribution of health systems
- 46% of all maternal deaths and 40% of all stillbirths and neonatal deaths occur during labour, on the day of birth
  - India also has a high prevalence (70%) of disrespectful maternity care



# Determinants of safe newborn care across care continuum & levels of service delivery



# Around the time of birth: A triple return on investment



Source: *The Lancet* Every Newborn Series, Mason E et al. *Lancet*, 2014 (27).

# Interventions for ensuring newborn safety





# 16 Interventions to save newborn lives Africa and Asia

Time Period	Intervention	Service delivery mode	Cause of death addressed
<b>Preconception</b>	Folic acid supplementation	Outreach	Congenital anomalies
<b>Antenatal</b>	TT immunization	Outreach	Tetanus
	Syphilis screening and treatment	Outreach	Infection/ prematurity
	Prevention of Pre-eclampsia and eclampsia	Outreach	Prematurity
	IPT for malaria	Outreach	Infection
<b>Intrapartum</b>	Detection and treatment of bacteriuria	Outreach	Prematurity
	Antibiotics for PPRM	Clinical care	Infection
	Corticosteroids for preterm labour	Clinical care	Prematurity
	Detection and management of breech, multiple pregnancy	Clinical care	Asphyxia
	Labour surveillance (including partograph) for early diagnosis of complications	Clinical care	Asphyxia
	Clean childbirth practices	Family/community care	Infection
<b>Postnatal</b>	Newborn resuscitation	Clinical care	Asphyxia
	Breastfeeding	Family/community care	Infection
	Prevention and management of hypothermia	Family/community care	Infection
	Kangaroo mother care (LBW infants in health facilities)	Family/community care	Infection in preterm/LBW infants
	Community-based pneumonia case management	Family/community care	Infection

# Effective interventions to save newborns are a mix of community and facility-based interventions

Panel 2

GRADE interventions according to outcomes.

What works	What might work	Insufficient evidence
<p><i>Mortality (neonatal or infant or child)</i></p> <p>Corticosteroid for prevention of neonatal respiratory distress syndrome</p> <p>Early initiation of breastfeeding</p> <p>Hygienic cord care</p> <p>Kangaroo mother care for low birth weight babies</p> <p>Provision and promotion of use of insecticide treated bed nets for children</p> <p>Vitamin A supplementation from 6 months of age</p>	<p>Tetanus immunization in pregnancy (tetanus toxoid vs. placebo)</p> <p>Prophylactic antimalarial during pregnancy</p> <p>Induction of labour for prolonged pregnancy</p> <p>Case management of neonatal sepsis, meningitis and pneumonia</p> <p>Prophylactic and therapeutic use of surfactant</p> <p>Continuous positive airway pressure (CPAP)</p> <p>Case management of childhood malaria</p> <p>Case management of childhood pneumonia</p> <p>Vitamin A as part of treatment for measles associated pneumonia for children above 6 months</p> <p>Home visits across the continuum of care women's groups</p>	<p>Family planning</p> <p>Periconceptional folic acid supplementation</p> <p>Folic acid supplementation during pregnancy*</p> <p>Iron supplementation during pregnancy</p> <p>Tetanus immunization in pregnancy (TT vs. diphtheria and influenza)</p> <p>Smoking cessation during pregnancy</p> <p>Prevention and treatment of eclampsia</p> <p>Active management for third stage of labour</p> <p>Induction of labour for PROM</p> <p>Antibiotic for PROM</p> <p>Thermal care for all newborns</p> <p>Neonatal resuscitation with bag and mask</p> <p>Presumptive antibiotic therapy for newborns</p> <p>Case management of childhood malaria (monthly sulfadoxine pyrimethamine (SP) compared to standard 2-dose SP)</p> <p>Comprehensive care of children infected or exposed to HIV infection</p> <p>Vitamin A as part of treatment for non-measles-associated pneumonia for children above 6 months</p> <p>Case management of diarrhoea</p>
<p><i>Perinatal mortality</i></p>	<p>Antenatal care</p> <p>Prophylactic antimalarial during pregnancy</p> <p>Induction of labour for prolonged pregnancy</p> <p>Home visits across the continuum of care women's groups</p>	<p>Periconceptional folic acid supplementation vs. placebo</p> <p>Smoking cessation during pregnancy</p> <p>Calcium supplementation</p> <p>Prevention and treatment of eclampsia (MgSO4 vs. none or other)</p> <p>External cephalic version</p> <p>Induction of labour for PROM</p> <p>Antibiotic for PROM**</p> <p>Corticosteroid for prevention of neonatal RDS (dexamethasone versus betamethasone)</p>
<p><i>Stillbirths</i></p>	<p>Provision and promotion of ITNs***</p> <p>Prophylactic antimalarial during pregnancy</p> <p>Induction of labour for prolonged pregnancy</p> <p>Home visits across the continuum of care women's groups</p>	<p>Periconceptional folic acid supplementation vs. no treatment/placebo</p> <p>Folic acid supplementation during pregnancy*</p> <p>Smoking cessation during pregnancy</p>

World Health Organization has developed the Safe Childbirth Checklist (SCC).

- The 29 item checklist targets 4 critical pause points in clinical care:
- on admission of the mother to the birth facility
  - just before delivery or caesarean delivery
  - soon after birth (within 1 h)
  - and before discharge



# Safe Childbirth Checklist - Pilot edition

## BEFORE DELIVERY

On admission	M	O
<input type="checkbox"/> Staff presentation		
<input type="checkbox"/> Patient identification		
<input type="checkbox"/> Cardiotocographic positioning track		
<input type="checkbox"/> Compiling forms		
<input type="checkbox"/> Detecting vital parameters		
<input type="checkbox"/> Wristband		
<input type="checkbox"/> Risk Identification		
<input type="checkbox"/> Partograph		
<input type="checkbox"/> Antibiotic therapy		
<input type="checkbox"/> Antihypertensive therapy		
<input type="checkbox"/> Retroviral therapy		
<input type="checkbox"/> Delivery analgesia requesting		

MOTHER IDENTIFICATION	
Surname:	
Name:	
Date of birth:	
BARCODE	

## DELIVERY

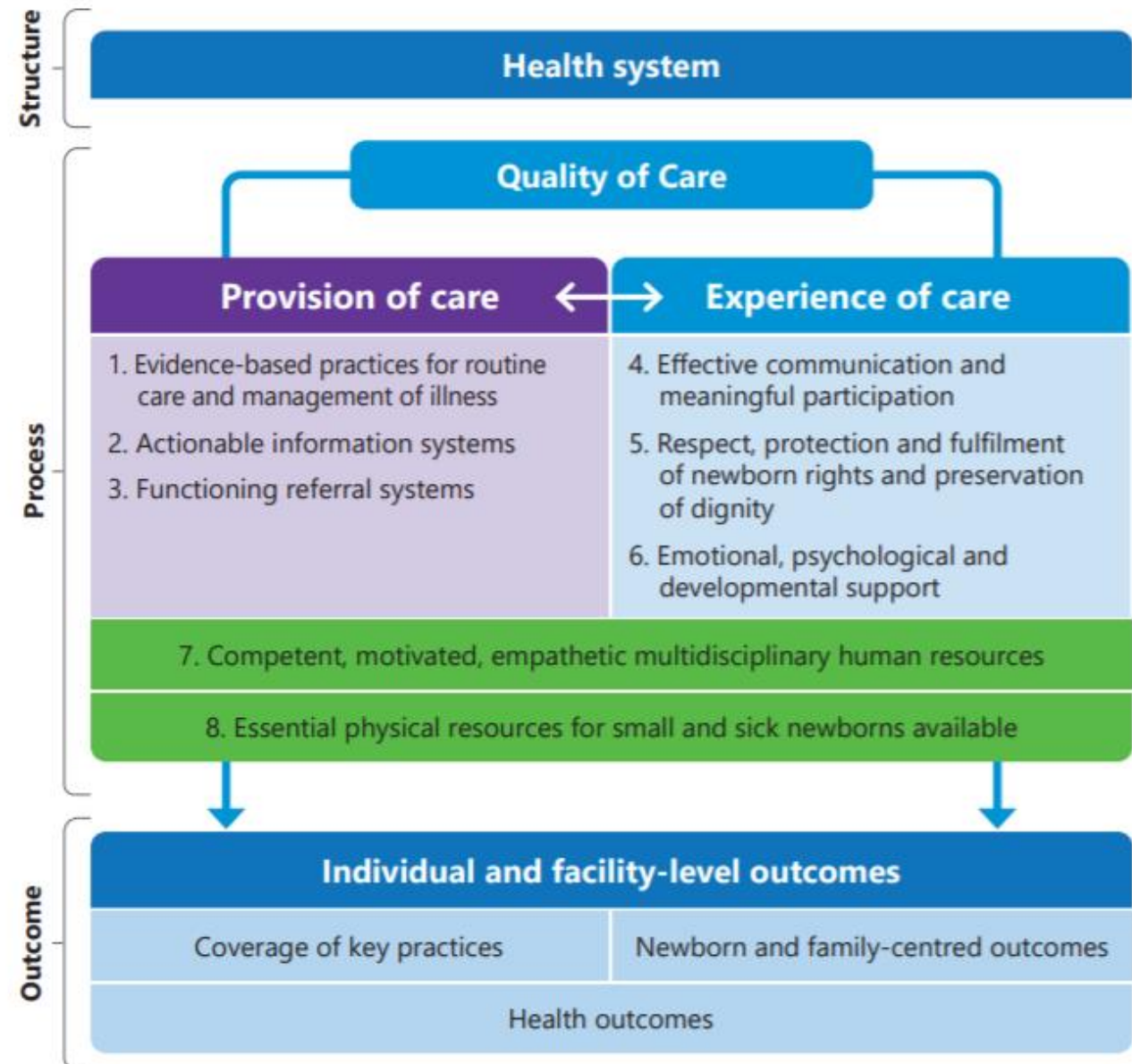
Spontaneous delivery	M	N	P
<input type="checkbox"/> Childbirth assistance deans			
<input type="checkbox"/> Second midwife call			
<input type="checkbox"/> Infant assistance deans			
<input type="checkbox"/> Neonatologist call			
<input type="checkbox"/> Emogas			
<input type="checkbox"/> Compiling forms			
Afterbirth	M	O	P
<input type="checkbox"/> Blood loss			
<input type="checkbox"/> Uterine tone			
<input type="checkbox"/> Antibiotic therapy			
<input type="checkbox"/> Vital signs rating			
<input type="checkbox"/> Compiling forms			

CHILD IDENTIFICATION	
Surname:	
Name:	
Date and time of birth:	

## AFTER DELIVERY

After 30 minutes	M	N	P
<input type="checkbox"/> Vital signs rating			
<input type="checkbox"/> Skin to skin contact			
<input type="checkbox"/> Nursing			
<input type="checkbox"/> Recommendation to the mother			
<input type="checkbox"/> Compiling forms			
After 2 hours / Mother	M	O	
<input type="checkbox"/> Blood loss			
<input type="checkbox"/> Uterine tone			
<input type="checkbox"/> Vital signs rating			
<input type="checkbox"/> Antibiotic therapy			
<input type="checkbox"/> VAS evaluation			
After 2 Hours / Newborn	N	M	
<input type="checkbox"/> Vital signs rating			
<input type="checkbox"/> Observation			
<input type="checkbox"/> Prophylaxis			
<input type="checkbox"/> Compiling forms			
<input type="checkbox"/> Call ward			

# Framework for improving quality of care and ensuring newborn safety





# Targeted action for newborn safety in India

- The past decade has witnessed rapid expansion of networks of newborn care centers
- Focus on both community and facility-based care: HBNC by ASHAs, and Facility Based Newborn Care
- Implementation of safe newborn checklist, Dakshata protocols
- Skill labs: skill labs have been established at different states
- Introduction of midwifery cadre training for facilities with high case loads
- Pre-service Education for strengthening Nursing Midwifery Cadre
- National Quality Standards-Safety of newborns is a major focus area
- LAQSHYA (Labour room & Quality Improvement Initiative) aims to improve quality of intrapartum care for ensuring safety of mother and newborns
- Real time online monitoring systems have been set especially for SNCUs across multiple states



Operational  
Guidelines

April 2015



Maternal Health Division  
Ministry of Health and Family Welfare  
Government of India





# Implementation challenges in improving quality of care for newborns in healthcare facilities

Inpatient care of small and sick newborns in the public health system got a boost under National Rural Health Mission: the focus on newborn care became central to the child health strategy of the government.

- Lack of a network of special newborn care units (SNCUs), newborn stabilization units (NBSUs) and newborn care corners (NBCC) as a composite functional unit of newborn care continuum at the district level
- Lack of adequate and skilled manpower
- Poor functionality of equipment
- Admissions overload
- Poor adherence to infection control
- Weak information systems for reporting on patient safety and quality of care
- Inadequate post discharge care and follow up
- Affordability barriers for the poor
- Gender inequity

# Summary: Moving towards safe newborn care in India

- Imagining newborn safety across the care continuum and different levels of service delivery-family to tertiary care centers
- Attention to sub-district and block level health facilities
- Introduce and sustain maternal and child safety checklists
- Evaluate the existing programs-LaQshya for program improvements
- Scale up midwifery initiative and incorporate culture and protocols of patient safety in medical/nursing education training programs
- More investments in data analysis and learning from quality-of-care information across health facilities
- Special attention to respect, dignity and good communication to mothers and families – during antenatal, intrapartum and post-partum care



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All faculty, staff and students at MCH  
Senior mentors at JHSPH



 Thank you!  
धन्यवाद