

SURVIVE and THRIVE

Transforming care for every
small and sick newborn

CHAPTER 5

Use data for action



KEY MESSAGES

1. Every country has data that can be used now to drive action.
2. There are many opportunities to improve data for small and sick newborns - data quality and availability.
3. Gaps in high-priority data must be closed to end preventable deaths (**survive**); ensure health and well-being (**thrive**); and change how small and sick newborns are cared for (**transform**).

Background

- Neonatal mortality represents about half of all under-5 deaths
- Small and sick newborns require special care to survive and thrive
- Among 100 WHO core health indicators, only one specific for small and sick newborns – low birthweight rate
- Policy-makers need reliable specific data for small and sick newborns to track progress towards ambitious 2030 targets



KEY MESSAGES

1. Every country has data that can be used now to drive action.



Which data are needed by health system level?

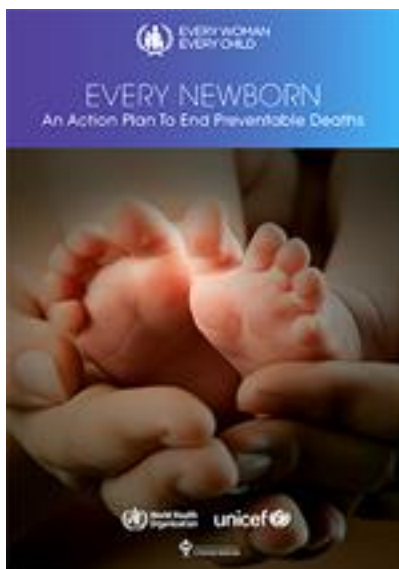


Level of health system	Examples of indicators specific for small and sick newborns
International indicators (Core) to track SDGs and UHC Includes impact, coverage, process indicators	Neonatal mortality rate Low birth weight rate Postnatal care – newborn Immediate breast feeding rate
National tracking data	Impact, coverage, service readiness indicators, human resources, equipment/drugs
District management	Coverage, more detailed service readiness indicators, equipment/drugs
Facility management	Quality improvement process data
Individual client care	Details for clinical decisions, client experience of care

Adapted from: Heywood and Rohde, 2000.

What types of data need to be captured?

Every Newborn Action Plan core & additional indicators



Current status	Type of indicators	Core indicators	Additional indicators
Definitions clear – but quantity and consistency of data lacking	Impact	1. Maternal mortality ratio** 2. Stillbirth rate* 3. Neonatal mortality rate**	Intrapartum stillbirth rate Low birth weight rate Preterm birth rate Small for gestational age Neonatal mortality rate Disability after neonatal conditions
Contact point definitions clear but data on content of care are lacking	Coverage: care for all mothers and newborns	4. Skilled attendant at birth** 5. Early postnatal care for mothers and newborns* 6. Essential newborn care (tracer is early breastfeeding)	Antenatal care* Exclusive breastfeeding up to six months*
Gaps in definitions, and requiring validation and feasibility testing for health management information systems use	Coverage: complications and extra care	7. Neonatal resuscitation 8. Kangaroo mother care 9. Treatment of serious neonatal infections 10. Antenatal corticosteroid use	Caesarean section rate Chlorhexidine cord cleansing
	Input: service delivery packages for quality of care	Emergency obstetric care Care of small and sick newborns Quality of care initiatives with measurable norms and standards	
	Input: counting	Birth registration†	Death registration, cause of death

Key: **(black text)** = indicators specifically relevant to small and sick newborns;

(grey text) = indicators relevant for all newborns;

(bold black text) = indicators specifically relevant to small and sick newborns and requiring additional testing to inform consistent measurement;

(light blue background) = not currently routinely tracked at global level.

* also a core indicator for the Global Strategy for Women's, Children's and Adolescents' Health (2016–2030) (13).

† also an indicator for the SDGs (14).

Indicators to be disaggregated by equity metrics such as urban/rural, socioeconomic, geography and education.

Adapted from: WHO and UNICEF, Every Newborn Action Plan (2014) (7); Mason et al., The Lancet (2014) (8); Moxon et al., BMC Pregnancy and Childbirth (2015) (9).

Measuring impact

....to measure results and track progress towards national/global goals and identify equity gaps



Which data can be used now?



What data are needed?



- Neonatal Mortality Rate (NMR) stratified by sex, birth weight groups
- Gestational age
- Follow up for small and sick newborn survivors after inpatient care – developmental and nutritional high risk

Measuring coverage and quality of care

....to plan and improve services.

- **Coverage indicators** measure the proportion of small and sick newborns who receive the care they need
- **Quality of care indicators** – provision and experience of care



Which data can be used now?



- “Contact coverage” typically tracked by nationally representative population-based surveys
- “Content coverage” captured by routine Health Management Information Systems
e.g. interventions for newborns in health facilities
- Quality of care indicators refined, standardized, validated
e.g. how can we measure the unnecessary separation of babies from their mothers?

What data are needed?



Kangaroo mother care in Malawi: improving availability, quality & use of routine data

Key lessons

- Engage Ministry of Health leadership early & throughout
- Prioritize indicators & data elements for routine reporting
- Include facility and HMIS staff in design/testing of tools
- Plan and budget for sustained human resources support at national, district and facility levels
- Collaborate across partners to address common, system-wide barriers to data quality and use
- Consider levels of partner support and district-specific factors when assessing performance



Source: Save the Children Malawi. Improving availability and quality of routine data for newborns: Malawi's experience with kangaroo mother care. Lilongwe, Malawi: Save the Children; 2018.

Measuring parent and community engagement

... central to effective family-centred care

Which data can be used now?



- Tools measuring parent & community engagement
- Family-centred care tools for neonatal units, with options specific to LMICs
- Toolkits to monitor advocacy activities & results



What data are needed?



- Further develop tools to measure types of support received by parents, families, and newborns

Measuring health system inputs 1: *Service-readiness measurement*

Which data can be used now?



- Periodic standardized health-facility assessments across 5 domains:
 1. Facility infrastructure
 2. Health technologies
 3. Care guidelines
 4. Human resources
 5. Training and routine practices

What data are needed?



- Further standardization for small and sick newborns

Measuring service readiness for small and sick newborns with Health Facility Assessment tools

	Intervention for small and sick newborn	HFA tools		
		SPA	SARA	EmONC
Increasing complexity of care	Treatment and screening for retinopathy of prematurity	0	0	0
	Continuous positive airway pressure and assisted/mechanical ventilation	1	1	1
	Blood transfusion	1	1	1
	Seizure management	2	2	2
	Effective phototherapy	0	0	0
	Assisted feeding (cup and nasogastric)	0	0	1
	Safe administration of oxygen	1	1	3
	Intravenous fluids and management of hypoglycaemia	1	1	4
	Injectable antibiotics	4	4	5
	Kangaroo mother care	2	1	3
	Immediate newborn care	4	5	5
	Thermal care	4	2	3
Essential newborn care	Immediate and exclusive breastfeeding	3	2	4
	Resuscitation with bag and mask	5	5	5

Key: (■, 0) = none of the five domains are assessed; (■, 1) = one of five domains is assessed; (■, 2) = two of five domains are assessed; (■, 3) = three of five domains are assessed; (■, 4) = four of five domains are assessed; (■, 5) = all five domains are assessed.

This table shows for each intervention, how many of five domains of service readiness (infrastructure, equipment and drugs, guidelines, training and routine practice) are currently assessed in commonly used health-facility assessment tools. HFA tools = Health Facility Assessment tools; SPA = Service Provision Assessment; SARA = Service Availability and Readiness Assessment; EmONC = Emergency Obstetric and Newborn Care.

Measuring health system inputs 2: *Health management information systems*

... to guide action at all levels within the health system



Which data can be used now?



- Rapid expansion of electronic platforms potential to unify and align traditionally fragmented information systems
- Core/ common newborn indicators specific small and sick newborns

What data are needed?



- Improve data quality - feedback loops
- Track individual newborns longitudinally and link them to their mothers and life-course
- Standardized neonatal inpatient records
- Implementation research designed to strengthen relationship of data systems and use data

Real-time monitoring of newborn care units in India

- Each year, >1 million newborns cared for **special newborn care units (SNCUs)**
- Data is used for accountability and action
 - National Health Mission's monitoring system assesses SNCU performance
 - 22.5% reduction in neonatal mortality between 2011-2016
 - Individual longitudinal data - newborns tracked post-discharge



Measuring health system inputs 3: *Health workforce measurement*

.....to shape policies and plan adequate numbers of suitably trained health workers provision of inpatient care

Which data can be used now?



- Limited data from human resources systems and health-facility assessment

What data are needed?



- Robust human resources tracking competencies, staffing ratios, recruitment, deployment, rotation, migration patterns
- Experience of health workers caring for small and sick newborns
- How measure health systems capacity to support caregivers



Measuring health system inputs 4: *Health systems finance measurement*

...to plan service delivery elements, ensure access and determine who is paying for UHC, track government/donor spending for accountability



Measuring health system inputs 5: *Leadership & governance measurement*

SDG 17 = revitalize global partnership for sustainable development

Specific target to increase availability of high-quality, timely and reliable data.



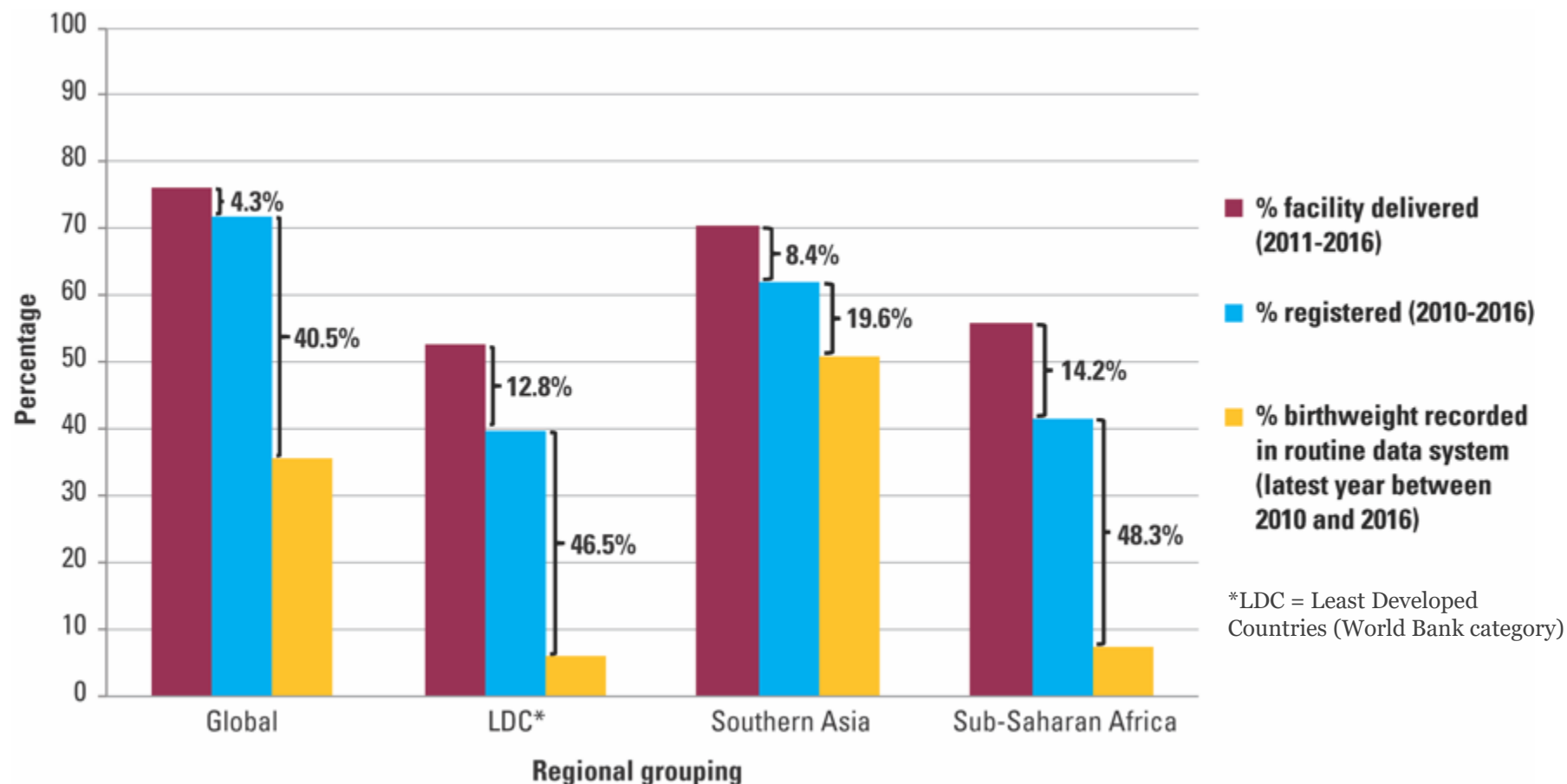
KEY MESSAGES

2. There are many opportunities to improve and use data now.



Civil registration and vital statistics (CRVS)

Small and sick newborns often underrepresented or missing



Data sources: Facility delivery and birth registration: State of the World's Children 2017; birth weight: WHO systematic collation of data from routine national HIMS (unpublished).

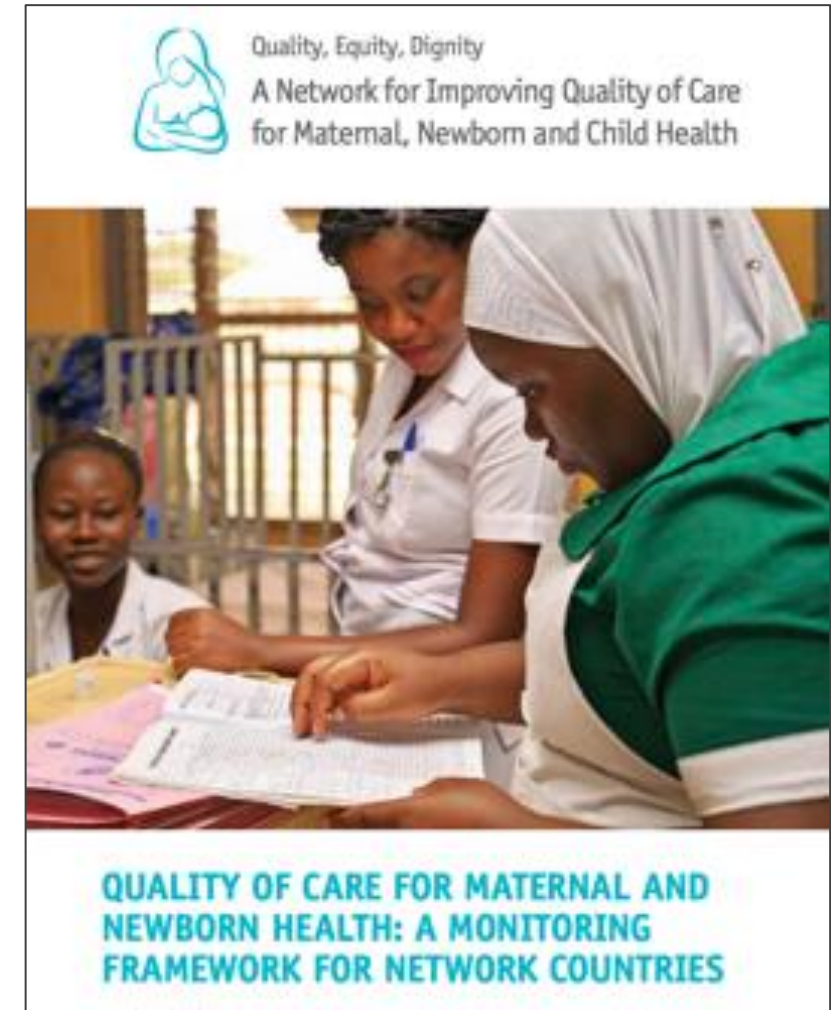
Maternal and perinatal death surveillance and response (MPDSR)



- A continuous action and surveillance system
- Identifies modifiable factors to implement actionable recommendations for change
- Currently, there is a gap between policy and practice – policy commitment is stronger for mothers than for newborns (2015 WHO findings)

Use data to improve quality of care

- Counting alone is not sufficient to change practices
- Data needs to be used for action to implement solutions
- The Quality of Care Network's monitoring framework guides quality improvement implementations and the use of data to track outcomes



KEY MESSAGES

3. Gaps in data must be closed to transform care so all newborns can survive and thrive.




Data for action in humanitarian settings

- Most vulnerable small and sick newborns born in fragile settings, have the least health-related data available
- UHC need increase data availability
 - link humanitarian settings with stable (host)



Priority data for action for small and sick newborns....

SURVIVE End preventable deaths	THRIVE Ensure health & well-being	TRANSFORM Expand enabling environments
<ul style="list-style-type: none">• Use HMIS integrated coverage and quality of care indicators• Link individual standardized clinical records for newborns to comparable core datasets• Standardize service-readiness tools to include small and sick newborns	<ul style="list-style-type: none">• Standardize indicators linked to child development and nutrition for high risk small and sick newborn survivors 	<ul style="list-style-type: none">• Improve metrics for small and sick newborns in all settings, including humanitarian• Measure experience of care for newborns, families and providers

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