EVERY WOMAN
EVERY CHILD

EVERY NEWBORN ACTION PLAN

# METRICS REPORT CARDS

Improving and using the data to accelerate progress to end preventable maternal and newborn deaths and stillbirths

World Health Organization

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COMMITTING TO CHILD SURVIVAL
A PROMISE RENEWED

## Every Newborn Action Plan

The Every Newborn Action Plan (ENAP) is based on evidence published in *The Lancet Every Newborn* series and is in support of the United Nations Secretary-General's *Every Woman Every Child* movement. Following consultations with member states and organizations, ENAP was launched in June 2014. The ENAP aims to support countries in reaching the Sustainable Development Goal (SDG) **target of fewer than 12 newborn deaths per 1000 live births**, and ENAP target of **fewer than 12 stillbirths per 1,000 total births by 2030**. The Plan was supported by a 2014 World Health Assembly resolution adopted to encourage government leaders, policymakers and program managers to end preventable newborn deaths and stillbirths. It is also closely linked to the Ending Preventable Maternal Mortality plan and supports key Sustainable Development Goals for health.

## Metrics work in support of Every Newborn

The ENAP Metrics working group is co-chaired by the World Health Organisation (WHO) and London School of Hygiene & Tropical Medicine (LSHTM), and has a mandate to work with all partners involved with ENAP to ensure the milestones in the Action Plan related to metrics are met on time, and tools and learning are shared and available in open access for widespread use in countries.

This series of metrics report cards summarises the status of the data, including what can be used now, an ambitious approach to improving the data, and how those interested can find out more.

To contact ENAP metrics coordination group please email ENAPmetrics@lshtm.ac.uk

## To read more information


The Lancet Every Newborn Series (2014) www.thelancet.com/series/everynewborn

The Every Newborn Action Plan (2014), and Progress Report (2015) www.everynewborn.org

WHO (2015) The WHO Technical consultation on newborn health indicators www.healthynewbornnetwork.org/sites/default/files/resources/ENAP_metrics_report.pdfBMC

Moxon et al., (2015) Count every newborn, a measurement improvement roadmap for coverage data. BMC Pregnancy and Childbirth 15 S2(8) www.biomedcentral.com/bmcpregnancychildbirth/supplements/15/S2

WHO (2015) Ending Preventable Maternal Mortality Report who.int/reproductivehealth/topics/maternal_perinatal/epmm/en/

The Roadmap for Health and Accountability (2015) Measurement for Accountability and Results in Health: http://ma4health.hsaccess.org/roadmap

Chou et al., (2015) Ending preventable maternal and newborn mortality and stillbirths. BMJ, 351 http://www.bmj.com/content/351/bmj.h4255

Sustainable Development Goals www.sustainabledevelopment.un.org

Proposed SDG Indicators http://unsdsn.org/wp-content/uploads/2015/05/150612-FINAL-SDSN-Indicator-Report1.pdf


Every Newborn Metrics Co-ordination Group

In support of over 80 partners who committed to the Every Newborn Action Plan

EVERY NEWBORN ACTION PLAN

# DATA REPORT CARD 1

## What do we need to measure and why?

Under its five strategic objectives, the Every Newborn Action Plan (ENAP) provides technical guidance for refining national policy within the context of health sector reform and wider reproductive, maternal, neonatal and child health strategies (Fig 1.1). High-quality care at birth for every woman and her baby is at the heart of the continuum of care (Fig 1.2). Scale up of these high-impact, and cost-effective interventions could give a triple return on investment and help to end preventable maternal and newborn deaths and stillbirths in support of the Global Strategy for Women's, Children's and Adolescent Health, under the Sustainable Development Goals.

Figure 1.1. Packages in the continuum of care


Figure 1.2. Strategic objectives of the ENAP

1. Strengthen and invest in maternal and newborn care during labour, birth and the first day and first week of life
2. Improve the quality of maternal and newborn care
3. Reach every woman and newborn to reduce inequities
4. Harness the power of parents, families and communities
5. Count every newborn through measurement, programme-tracking and accountability

Data are crucial for informing and accelerating change, as well as monitoring quality and safety. Where indicators for high impact, evidence-based interventions are effectively tracked, equitable coverage tends to improve planning, leading to better population health outcomes. This has been seen for under-five deaths due to HIV/AIDS, malaria and measles (among others), which have seen the greatest proportional declines and have more advanced and more programmatic data (coverage and process), collected more frequently, and at a more granular level (e.g. district level, by various equity analyses groups). This contrasts with newborn health care where most of the high impact interventions do not have comparable coverage data or data are of poorer quantity and quality, and have been collected with less frequency[1].

## What are the indicators, and why are these important?

Ten priority indicators were selected during wide consultations for the development of ENAP. These indicators are proposed for use in countries and have been prioritised according the five ENAP objectives (Fig 1.1) in order to track impact, coverage of care for every mother and newborn, and specific interventions for complications and extra care (Table 1.1). Additional indicators are listed, including those important for measuring outcomes related to quality of care at birth and care for small and sick newborns, notably capturing intrapartum stillbirths and monitoring disability. Accurate, regular collection of maternal and newborn health data, including stillbirths, is essential to track in-country progress towards ENAP targets, and for programme managers and policymakers to monitor and respond to gaps in equity and quality of care. There are 29 countries which need to at least double progress to meet the target for neonatal mortality, and more that need to meet the target for stillbirth prevention, and these countries have the furthest to go in terms of health management information systems. It is therefore critical that a limited number of data points are prioritised and tested to ensure validity and feasibility for use; even in more challenging settings.

## Priority gaps in metrics

Table 1.1 is colour coded. Impact indicators are shown in green; those in normal text have clear, agreed definitions, but the quality and quantity of data require improvement. Indicators of coverage of care of all mothers and newborns are shown in amber; the three identified for tracking are clearly defined, but data on the content and quality of care must be improved. The indicators for coverage of care for newborns at risk or with complications are shown in red, as their measurement requires the most work, with gaps in definitions. New research is required for validation and to assess the feasibility of their use at scale in health management information systems (HMIS).

The ENAP Measurement Improvement Roadmap is detailed in Report Card 2 and specifies challenges and gaps in measurement and provides a multi-year, multi-partner pathway to improving the status of measurement, including indicator definitions, tools, coverage, utility and validity.

### Table 1.1: ENAP core and additional indicators

| Current status | | Core ENAP indicators | Additional indicators |
|---|---|---|---|
| Definitions clear – but quantity and consistency of data lacking | ***Impact*** | 1. Maternal mortality ratio* | |
| | | 2. Stillbirth rate* | Intrapartum stillbirth rate |
| | | 3. Neonatal mortality rate* | Low birth weight rate |
| | | | Preterm birth rate |
| | | | Small for gestational age |
| | | | **Neonatal morbidity rates** |
| | | | **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* | Antenatal Care* |
| | | 5. Early postnatal care for mothers and babies* | |
| | | 6. Essential newborn care (tracer is early breastfeeding) | Exclusive breastfeeding up to 6 months* |
| Gaps in coverage definitions, and requiring validation and feasibility testing for HMIS use | ***Coverage:*** **Complications and Extra Care** | 7. **Antenatal corticosteroid use** | Caesarean section rate |
| | | 8. **Neonatal resuscitation** | |
| | | 9. **Kangaroo mother care** | |
| | | 10. **Treatment of severe neonatal infections** | **Chlorhexidine cord cleansing** |
| | ***Input:*** **Service Delivery Packages for Quality of Care** | Emergency Obstetric Care | |
| | | **Care of Small and Sick Newborns** | |
| | | **Every Mother Every Newborn Quality Initiative with measurable norms and standards** | |
| | ***Input:*** **Counting** | Birth Registration | Death registration, cause of death |

**Shaded =** Not currently routinely tracked at global level. **Bold red** = Indicator requiring additional testing to inform consistent measurement
Indicators to be disaggregated by equity such as urban/rural, income, and education. *also SGD core or complementary indicator
Adapted from WHO and UNICEF, Every Newborn Action Plan (2014), Mason et al. Lancet (2014), Moxon et al., BMC (2015)
For full references and further reading see Introduction to these report cards and www.everynewborn.org

[1] WHO (2014), The Every Newborn Action Plan
[2] Mason et al. (2014) From Evidence to action to deliver a healthy start for the next generation. The Lancet 384(9941) p455-467.
[3] Moxon et al.(2015) Count every newborn; a measurement improvement roadmap for coverage data. BMC Pregnancy and Childbirth S2(8)

EVERY NEWBORN ACTION PLAN

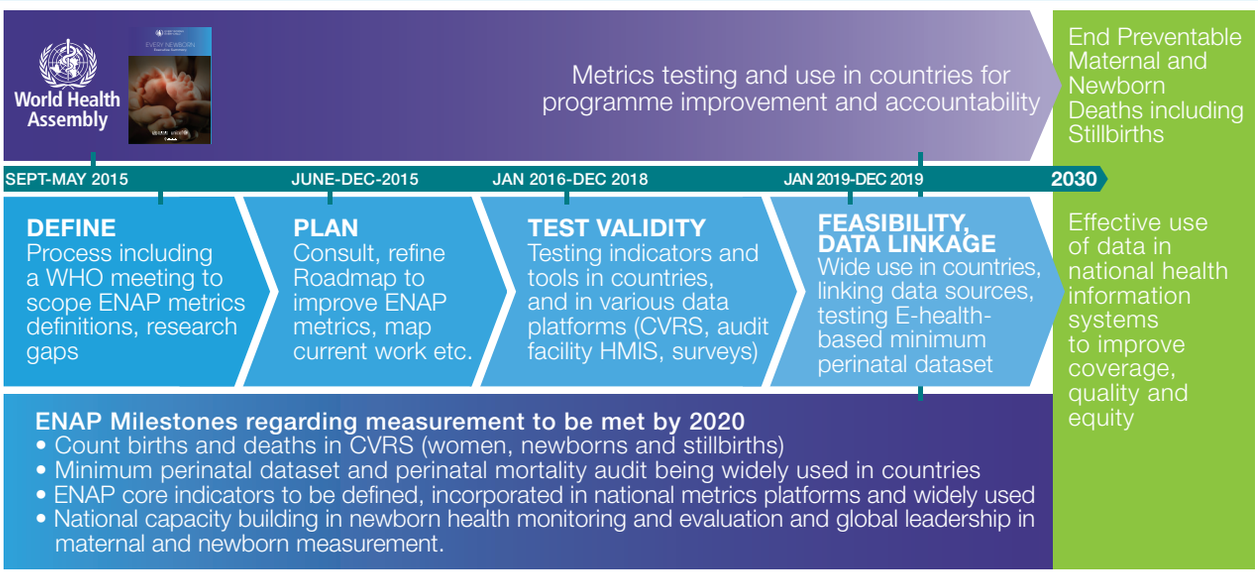
# DATA REPORT CARD 2

## How will the data be improved and used?

### The Measurement Improvement Roadmap, an ambitious plan to improve and use data

Since 2014, substantial progress has been made in aligning indicator definitions that can be used in countries. A five-year multi-partner ENAP Measurement Improvement Roadmap details steps to meet key ENAP milestones (Fig 2.1). Coordinated via the ENAP metrics group, the Roadmap was developed in wide consultation, including a WHO meeting of 50 experts[1] and a series of consultation sessions throughout 2015. The purpose was to link to and contribute to the wider Measurement for Health roadmap for health systems, noting that counting births and deaths around the time of birth is fundamental to all health information systems.[2]

Figure 2.1: The Every Newborn Measurement Improvement Roadmap




### What can we measure now to assess progress for care of small and sick newborns?

Given the gap in immediate measurement of population coverage data, and content and quality of care for treatment of small and sick newborns, Table 2.1 details indicators that are already in use and can be tracked immediately, while work progresses to validate and test feasibility for the coverage indicators for indicators 7-10.

Table 2.1: Process and readiness indicators to measure now regarding care of newborns with complications or those at risk[3]

| INDICATOR | NUMERATOR | DENOMINATOR |
|---|---|---|
| **Antenatal corticosteroids (ACS) use** | Number of countries with ACS on the essential drug list for the purpose of fetal lung maturation in preterm labour | Number of countries with essential medicine list policy data |
| **Newborn resuscitation** | Number of facilities with a functional neonatal bag and two masks (sizes 0 and 1) in the labour and delivery service area | Number of facilities with inpatient maternity services that are assessed |
| **Kangaroo Mother Care** | Number of facilities in which a space is identified for KMC and where staff have received KMC training (< 2 years) | Number of facilities with inpatient maternity services that are assessed |
| **Treatment of neonatal possible serious bacterial infection** | Number of facilities in which gentamicin is available at suitable peripheral level for treatment of severe neonatal infection | Number of facilities assessed |
| **Chlorhexidine (CHX) cord cleansing** | Number countries with CHX on the essential drug list for the purpose of cord cleansing | Countries with essential medicine list policy data |

## What data improvements are most needed?

All the ENAP core indicators (Table 1.1), even those colour coded green (impact level), require improvements in quantity and quality of data, notably for intrapartum stillbirths. For skilled birth attendance and postnatal care, as well as antenatal care, advances have been made in data for coverage of the contact at this time, but there are gaps in the measurement of content and quality. There are major gaps (shown in red in Table 1.1) for indicators regarding treatment for newborns or women at risk or with complications. For these indicators, clinical judgement is usually needed in order to identify those in need of the intervention. As with caesarean section, this is hard to measure consistently, creating further measurement challenges for capturing the true denominator. Therefore, options need to be considered for testing more feasible denominator options (listed in Table 2.2).

Work to validate the core coverage indicators and test a range of potential denominators (Table 2.2) will start in Tanzania and Bangladesh.

The facility-based testing for ENAP includes

- Four core coverage indicators (Table 2.2)
- Facility readiness for small and sick newborn care (similar to Emergency Obstetric Care approach)
- Birth and death certificate innovations
- Birth weight and gestational age (GA) improvement
- Perinatal audit field testing and minimum perinatal dataset

The indicators will then be tested for feasibility of collection in routine health management information systems. Some interventions – such as use of chlorhexidine cord cleansing or kangaroo mother care – may also be measurable through household surveys and require separate work.

### Table 2.2: Coverage indicators for validation regarding care of newborns with complications or those at risk [3]

| INDICATOR | NUMERATOR | DENOMINATOR, OPTIONS TO BE TESTED |
|---|---|---|
| **Antenatal corticosteroid (ACS) use** | All women giving birth in a facility who are <34 completed weeks and received one dose of ACS for being at risk of preterm birth (note initial focus on counting all while testing ways to split by GA at birth to identify women treated who did not deliver <34 completed weeks)* | a) Live births in the facility<br>b) Total births in the facility (including stillbirths)<br>c) Estimated births (live or total)<br>d) Target population for coverage (live births in facility by gestational age in weeks, notably gestational age <34 weeks as target population for coverage) |
| **Newborn resuscitation** | Number of newborns who were not breathing spontaneously/ crying at birth for whom resuscitation actions (stimulation and/or bag and mask) were initiated | |
| **Kangaroo mother care (KMC)** | Number of newborns initiated on facility-based KMC | |
| **Treatment of neonatal possible serious bacterial infection (PSBI)** | Number of newborns who received at least one dose of antibiotic injection for PSBI in the facility | |

*Important for assessing safety[4]

## Leadership from highest burden regions to improve and use data

To strengthen national technical leadership for data collection and use, the indicator improvement activity will be nested in academic centres of excellence, initially in two high-burden countries (Bangladesh and Tanzania). In addition, the INDEPTH network Maternal Newborn Interest Group, will lead to the testing of questions and improved tools for counting births and deaths around the time of birth, including improved cause of death and birth weight/gestational age (GA) assessments.

## The road ahead

In addition to these initial actions, work is needed to improve measurement of GA and birthweight, and tools and systems are needed to integrate routine information systems data with impact data and other data platforms.

For full references and further reading see Introduction to these report cards and www.everynewborn.org
[1] World Health Organization (2014) The WHO Technical consultation on newborn health indicators, assess at www.everynewborn.org
[2] Measurement for Accountability and Results in Health (2015) The Roadmap for Health and Accountability
[3] Moxon et al., (2015) Count every newborn, a measurement improvement roadmap for coverage data, BMC Pregnancy and Childbirth, S2(S8)
[4] Liu et al. (2015) Antenatal corticosteroids for management of preterm birth: a multi-country analysis of health system bottlenecks and potential solutions, BMC Pregnancy and Childbirth, S2(S3)