

# STRENGTHENING ANALYSIS AND USE OF ROUTINE FACILITY DATA FOR MATERNAL, NEWBORN, CHILD AND ADOLESCENT HEALTH



Routine health facility data  
indicators for maternal,  
newborn, child and  
adolescent health

- Provide overview of global status of key indicators on maternal, newborn, child and adolescent health (MNCAH) and background on global initiatives toward reducing preventable mortality and improving health across MNCAH
- Introduce the MNCAH module of the WHO Toolkit on Routine Health Information Systems (RHIS) Data
- Review recommended indicators for monitoring through routine health information systems from the WHO guidance *Analysis and use of health facility data: guidance for MNCAH programme managers*
- Consider how MNCAH indicators/data elements from WHO toolkit can be incorporated into national RHIS

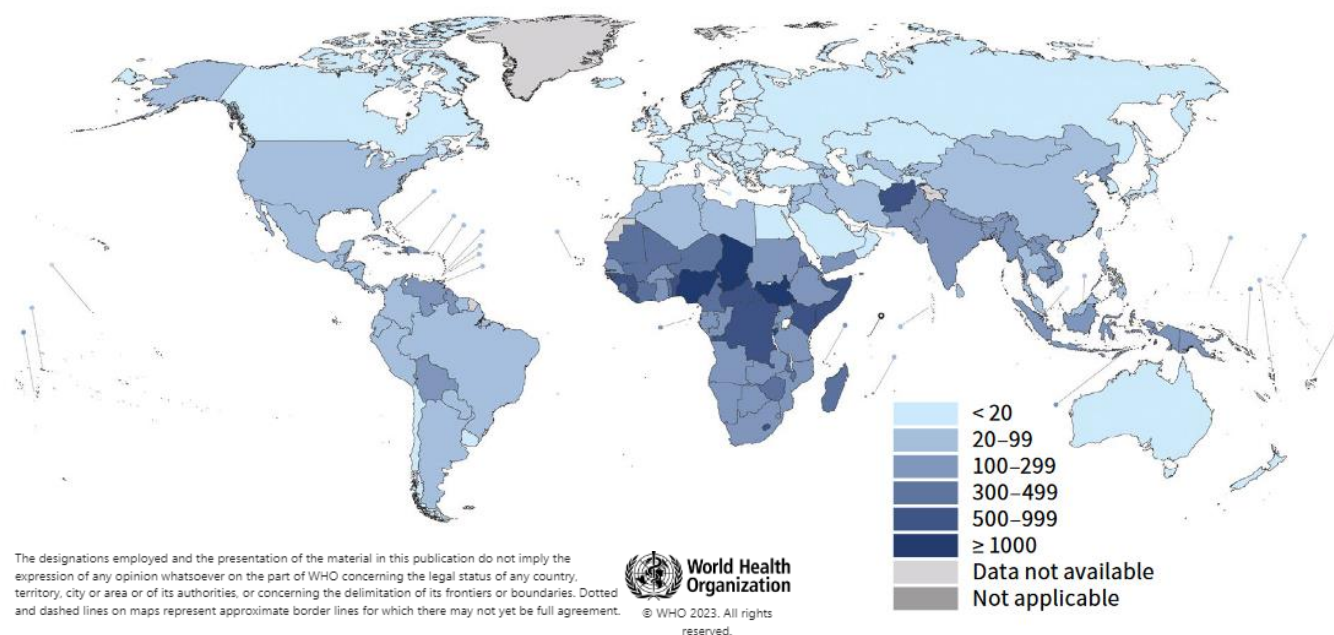


# RECENT ESTIMATES OF MNCAH MORTALITY AND GLOBAL INITIATIVES TO ACCELERATE PROGRESS IN MNCAH

# What are recent global estimates of mortality across MNCAH?

## Maternal mortality

### Maternal mortality ratio estimates, by country (2020)

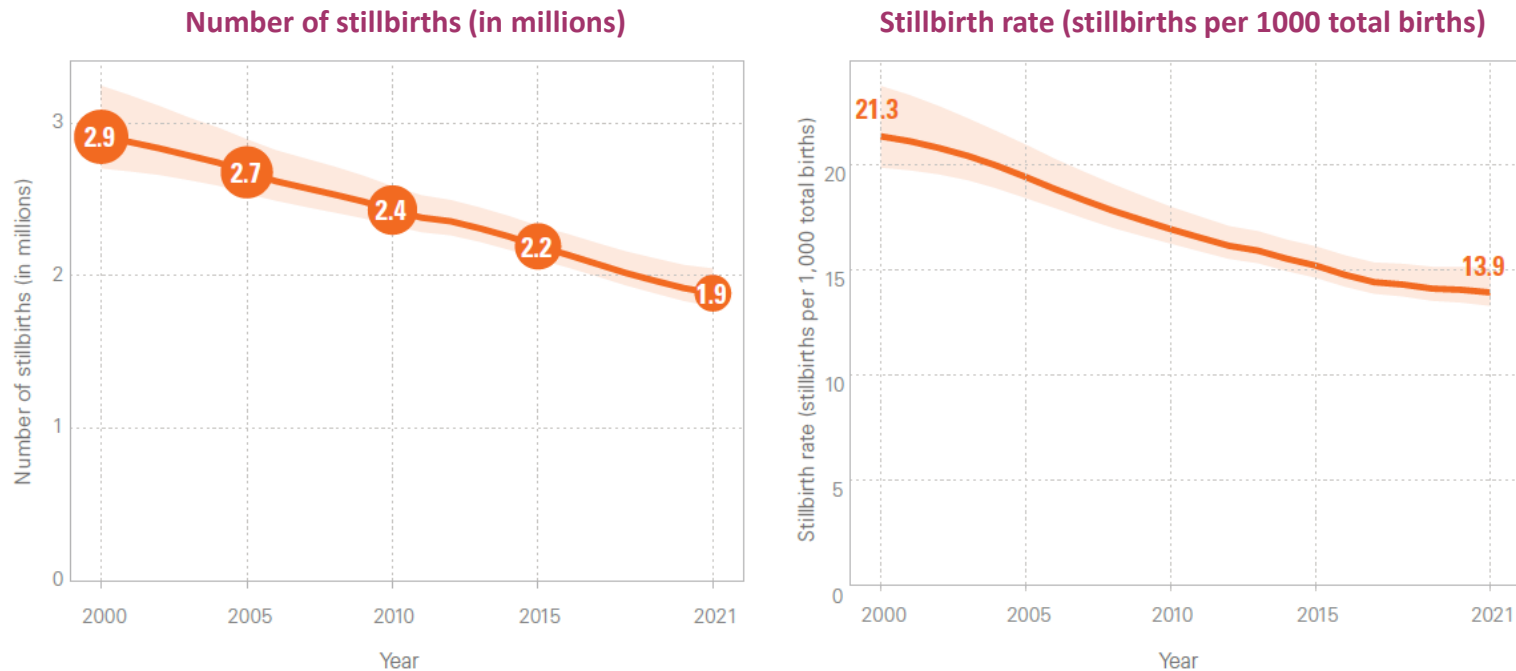


**SDG Target 3.1:**  
By 2030, reduce the global maternal mortality ratio to less than 70 per 100 000 live births.

Based on global estimates, of about **287 000 women who died during and following pregnancy and childbirth in 2020**, almost 95% of all maternal deaths occurred in low and lower middle-income countries, reflecting inequalities in access to quality health services. While maternal mortality has decreased globally (339 per 100 000 live births in 2000 to 227 per 100 000 live births in 2020), **progress toward SDG target 3.1 has stagnated.**

# What are recent global estimates of mortality across MNCAH?

## Stillbirths



Note: The solid line represents the median and the shaded area represents the 90 per cent uncertainty around the median value.

Image from: Never Forgotten: The situation of stillbirth around the globe: report of the United Nations Inter-Agency Group for Child Mortality Estimation, 2023.

Stillbirth rate is a key indicator of quality of care during pregnancy and childbirth. Based on global estimates, in 2021, almost **1.9 million babies were born stillborn** (at 28 weeks or more of gestation), with over 75% of stillbirths occurring in sub-Saharan African and southern Asia. As a comparison, in sub-Saharan Africa the stillbirth rate in 2021 was 21.0 stillbirths per 1000 total births compared to the **global stillbirth rate of 13.9 stillbirths per 1000 total births**.

Source: Never Forgotten: The situation of stillbirth around the globe: report of the United Nations Inter-Agency Group for Child Mortality Estimation. (United Nations Inter-agency Group for Child Mortality Estimation, 2023)

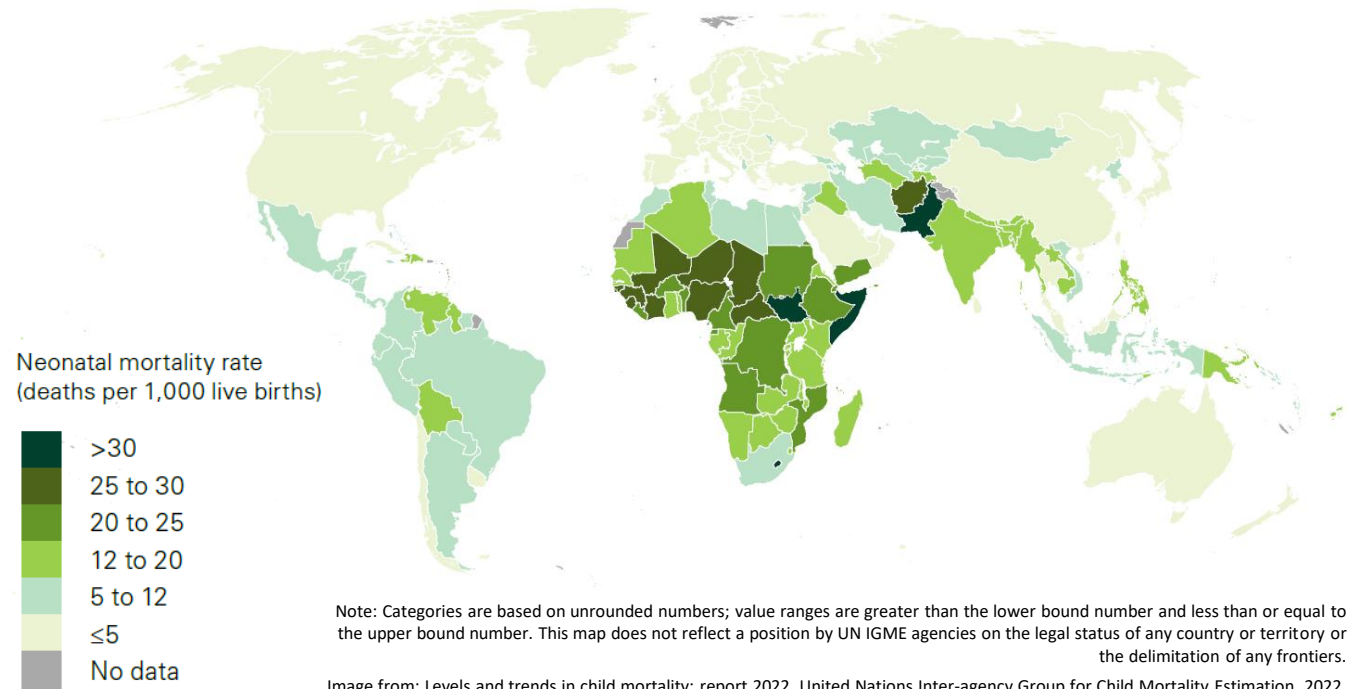
# What are recent global estimates of mortality across MNCAH?

## Neonatal mortality

### SDG Target 3.2:

By 2030, end preventable deaths of newborns and children under 5 years of age with all countries aiming to reduce neonatal mortality to at least as low as 12 per 1,000 live births and under-5 mortality to at least as low as 25 per 1,000 live births.

### Neonatal mortality rate (deaths per 1000 live births)



Based on global estimates, in 2021, approximately **2.3 million children died during the first 28 days of life**. These deaths make up approximately 47% of under-five deaths in the same year, reflecting that the **first 28 days are the most vulnerable period for child survival**. While the global neonatal mortality rate (NMR) in 2021 was 18 deaths per 1000 live births, sub-Saharan Africa had the highest NMR in the world (27 deaths per live 1000 births).<sup>1</sup>

# What are recent global estimates of mortality across MNCAH?

## Child mortality

### SDG Target 3.2:

By 2030, end preventable deaths of newborns and children under 5 years of age with all countries aiming to reduce neonatal mortality to at least as low as 12 per 1,000 live births and under-5 mortality to at least as low as 25 per 1,000 live births.

### Under-five mortality (deaths per 1000 live births) by SDG region

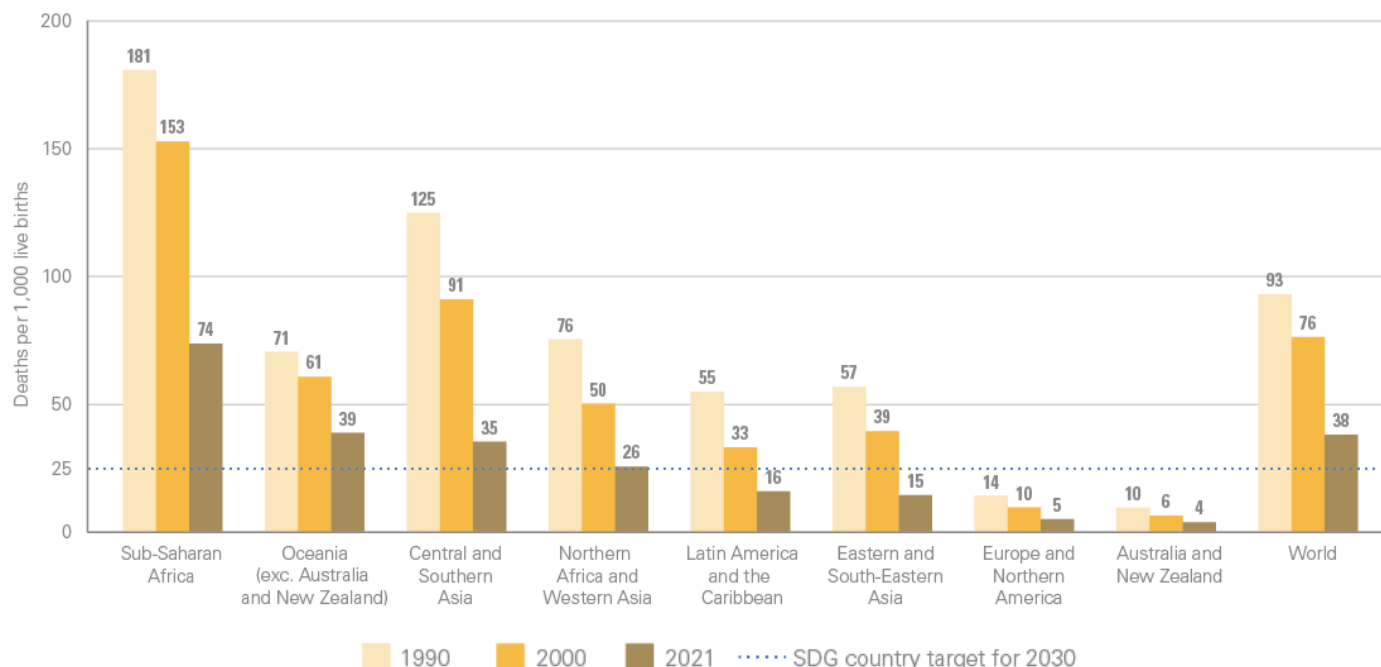


Image from: Levels and trends in child mortality: report 2022. United Nations Inter-agency Group for Child Mortality Estimation, 2022.

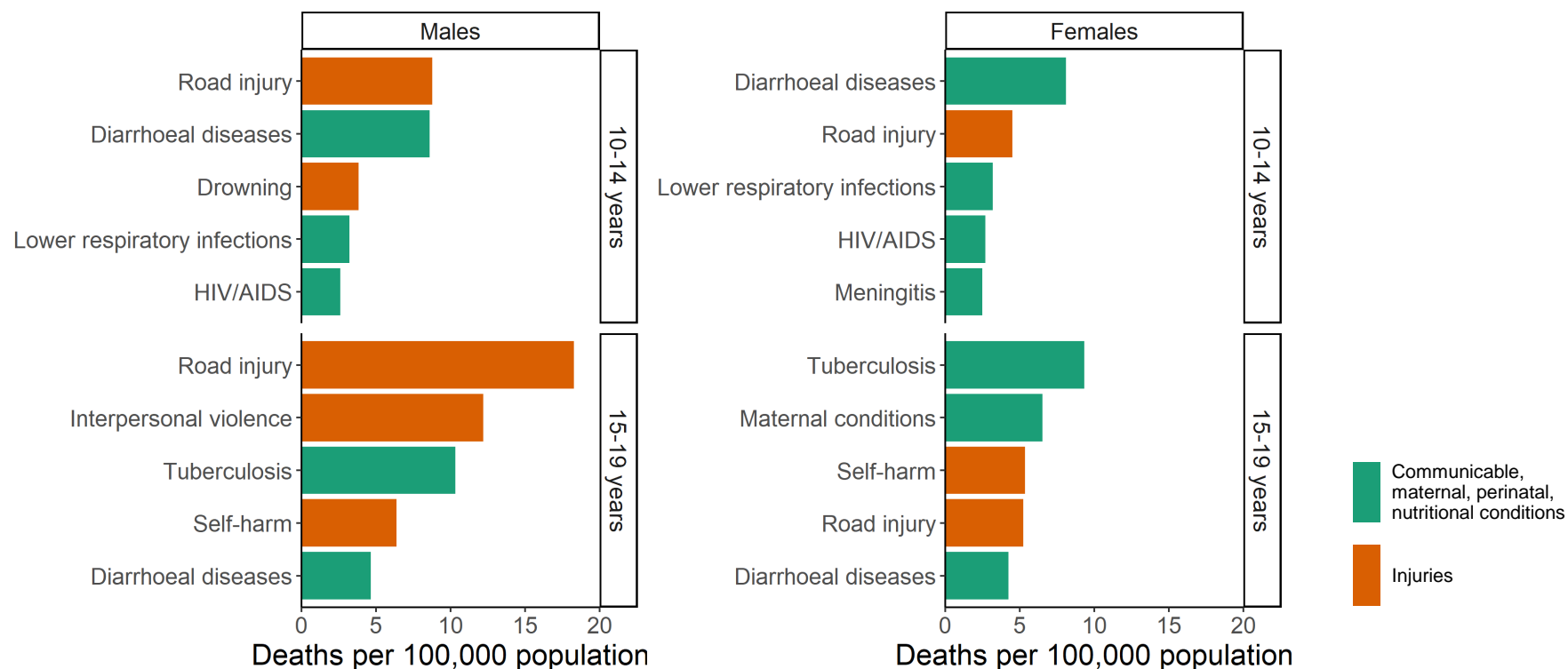
Between 2000 and 2021, the global under-5 mortality rate decreased from 76 deaths per 1000 live births to 38 deaths per 1000 live births, however **54 countries are not on track to meet the SDG 3.2 under-5 mortality target**.<sup>1</sup> “Of these 54, 37 countries will need to more than double their current rate of progress or reverse a recent increasing trend to achieve the SDG target by 2030”<sup>1</sup>.



# What are recent global estimates of mortality across MNCAH?

## Adolescent mortality (1/3)

### Top causes of mortality amongst adolescents, by sex and age group



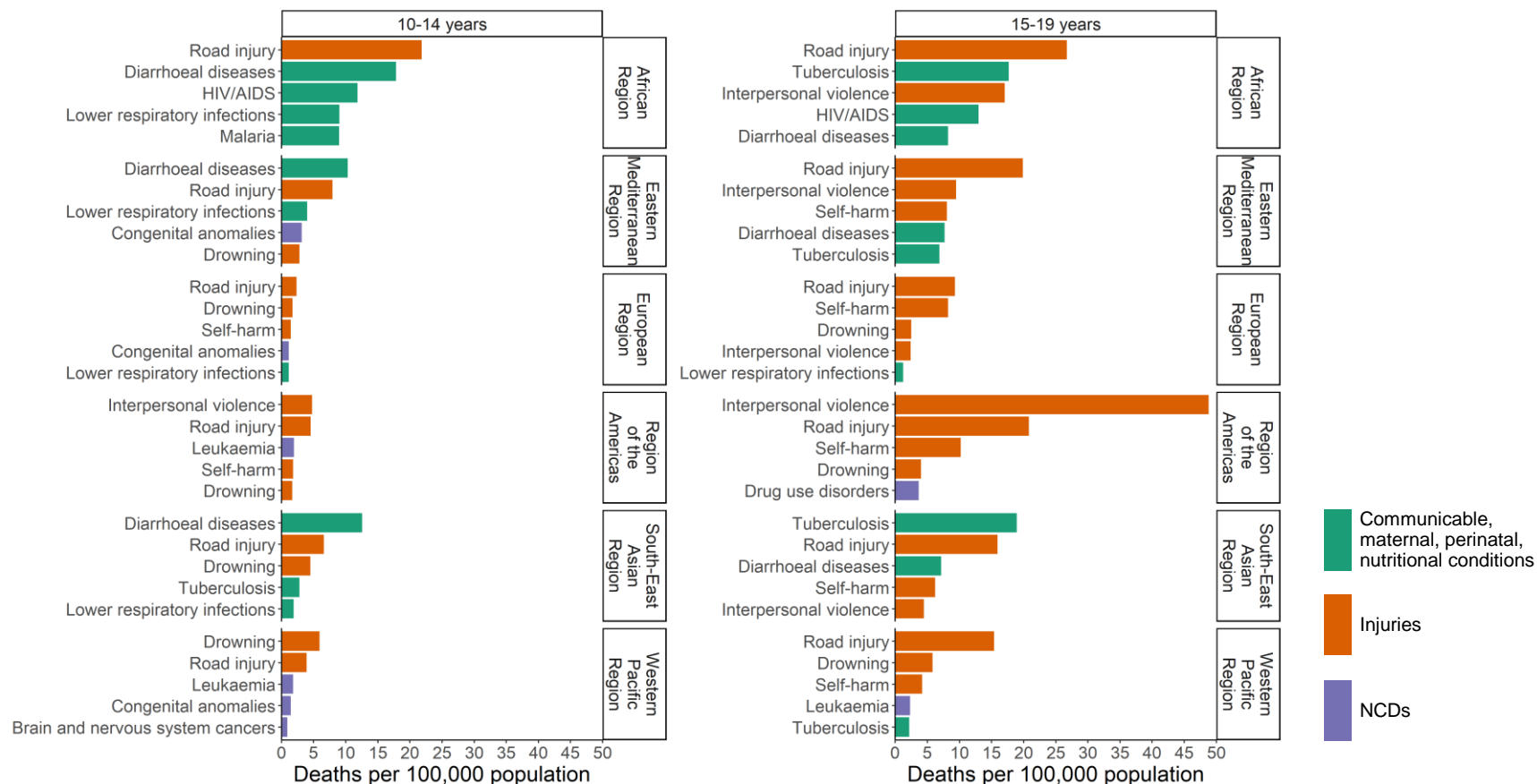
There is **variation in the top causes of deaths** between younger (10-14) and older (15-19) female adolescents and across WHO regions, highlighting **the importance of disaggregated data for targeting public health interventions**.



# What are recent global estimates of mortality across MNCAH?

## Adolescent mortality (2/3)

### Top-five causes of mortality amongst adolescent males, by age group and WHO region (2019)

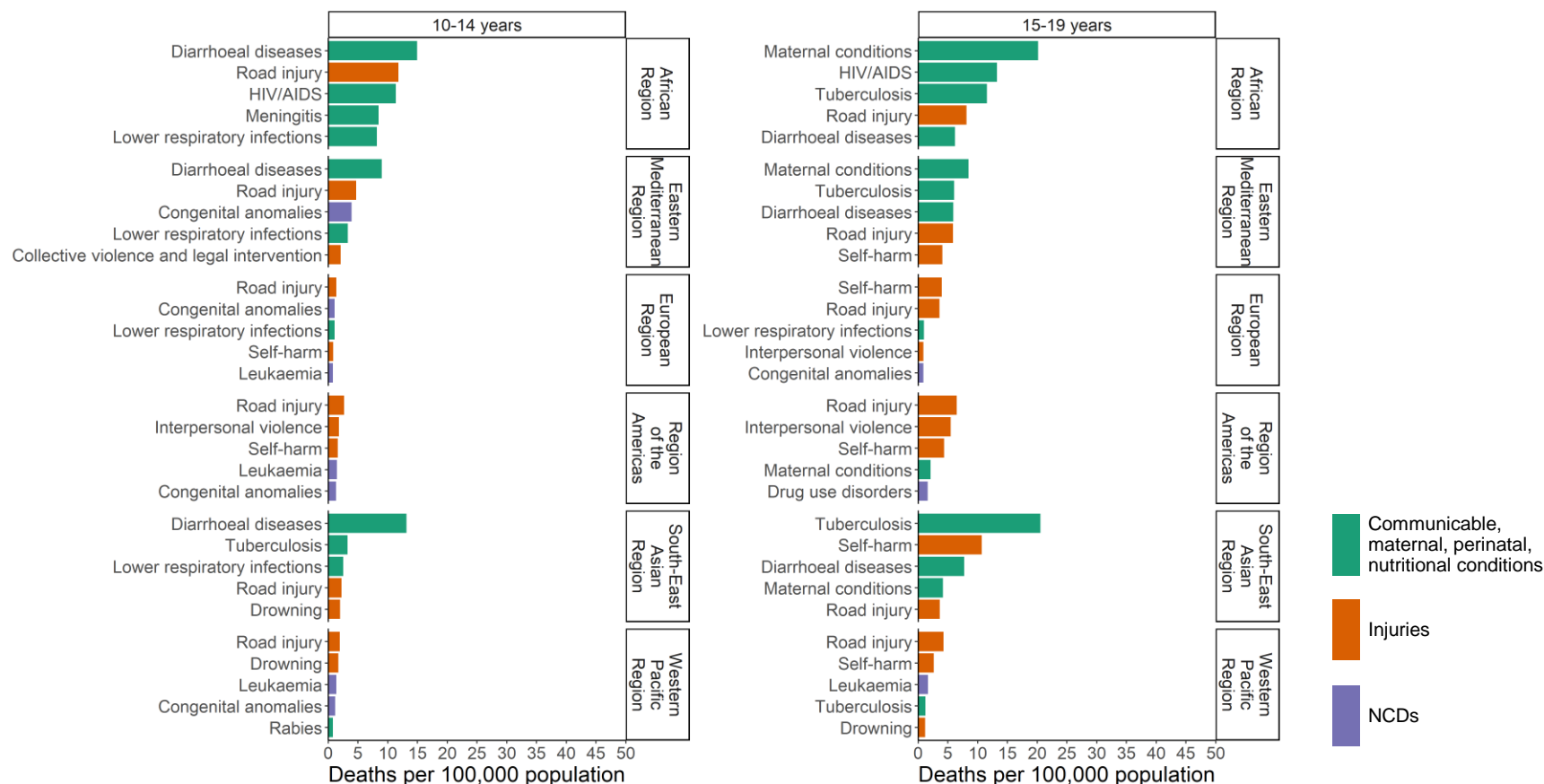


While there are differences in the top causes of deaths among younger and older adolescents and across WHO regions, **most deaths among adolescent males are due to injuries.**

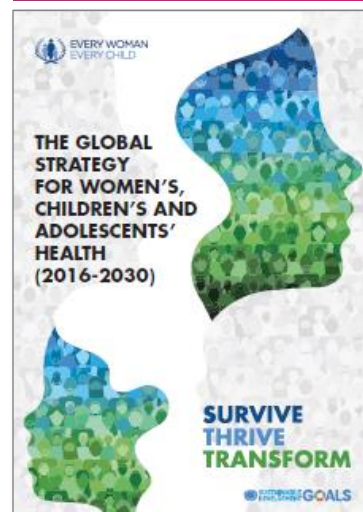
# What are recent global estimates of mortality across MNCAH?

## Adolescent mortality (3/3)

### Top-five causes of mortality amongst adolescent females, by age group and WHO region (2019)



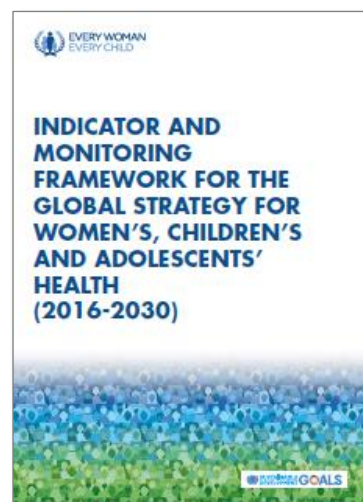
There is **variation in the top causes of deaths** between younger (10-14) and older (15-19) female adolescents and across WHO regions, highlighting **the importance of disaggregated data for targeting public health interventions**.



The [Global Strategy for Women's, Children's and Adolescents' Health](#) (GSWCAH) spans the 15 years of the SDGs provides guidance to **accelerate momentum for women's, children's and adolescents' health.**

## VISION

By 2030, a world in which every woman, child and adolescent in every setting realize their rights to physical and mental health and well-being, has social and economic opportunities, and is able to participate fully in shaping prosperous and sustainable societies.



The [Indicator and Monitoring Framework](#) is built around the objectives and targets of the GSWCAH.

## OBJECTIVES AND TARGETS

**SURVIVE** - End preventable deaths

**THRIVE** - Ensure health and well-being

**TRANSFORM** - Expand enabling environments

16 key indicators of 60 total

## Key indicators

### Survive

1. Maternal mortality ratio (SDG 3.1.1)
2. Under-5 mortality rate (SDG 3.2.1)
3. Neonatal mortality rate (SDG 3.2.2)
4. Stillbirth rate
5. Adolescent mortality rate

### Thrive

6. Prevalence of stunting among children under 5 years of age (SDG 2.2.1)
7. Adolescent birth rate (10-14, 15-19) per 1000 women in that age group (SDG 3.7.2)
8. Coverage index of essential health services, including for infectious diseases, noncommunicable diseases and RMNCAH: family planning, antenatal care, skilled birth attendance, breastfeeding, immunization, childhood illnesses treatment (SDG 3.1.2, 3.7.1, 3.8.1)
9. Out-of-pocket health expenditure as a percentage of total health expenditure
10. Current country health expenditure per capita (including specifically on RMNCAH) financed from domestic sources
11. Number of countries with laws and regulations that guarantee women aged 15-49 access to sexual and reproductive health care, information and education (SDG 5.6.2)
12. Proportion of population with primary reliance on clean fuels and technology (SDG 7.1.2)

### Transform

13. Proportion of children under 5 years of age whose births have been registered with a civil authority (SDG 16.9.1)
14. Proportion of children and young people in schools with proficiency in reading and mathematics (SDG 4.1.1)
15. Proportion of women, children and adolescents subjected to violence (SDG 5.2.1, 16.2.3)
16. Percentage of population using safely managed sanitation services including a hand-washing facility with soap and water (SDG 6.2.1)

# The 16 key indicators of the Global Strategy for Women's, Children's and Adolescents' Health are linked to several Sustainable Development Goals (SDG)



## SDG 2

End hunger, achieve food security and improved nutrition and promote sustainable agriculture



## SDG 3

Ensure healthy lives and promote well-being for all at all ages



## SDG 4

Ensure inclusive and equitable quality education and promote lifelong opportunities for all



## SDG 5

Achieve gender equality and empower all women and girls



## SDG 6

Ensure availability and sustainable management of water and sanitation for all



## SDG 7

Ensure access to affordable, reliable, sustainable and modern energy for all



## SDG 16

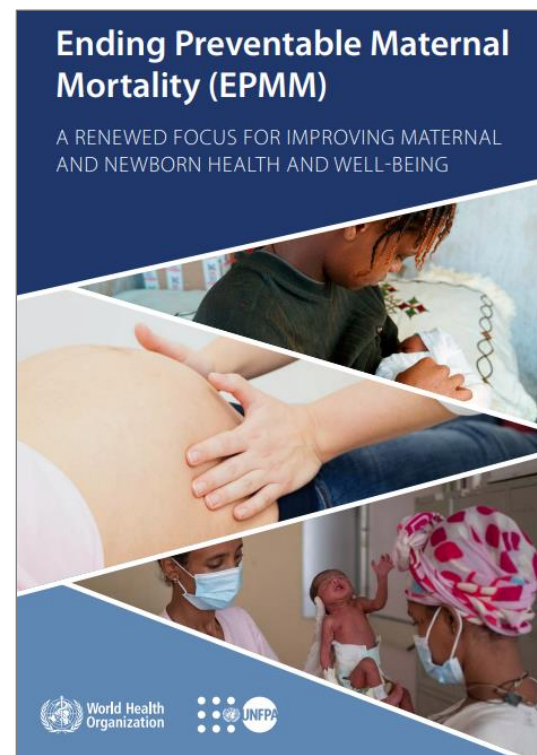
Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels

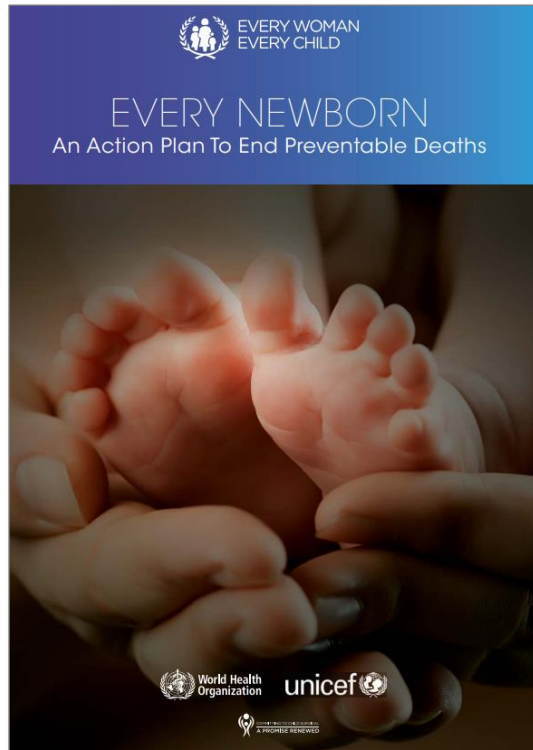


### Ending Preventable Maternal Mortality (EPMM)

In 2021, an estimated 1.9 million stillbirths occurred; almost half of these deaths happened during labour. The deaths and disabilities that occur during pregnancy and childbirth have far reaching effects on women and the newborns. While many countries have made significant advancements, significant disparities in equitable coverage of essential maternal and perinatal health interventions remain as barriers in many settings.

In 2015, the strategies for Ending Preventable Maternal Mortality (EPMM), a global multi-partner initiative, outlined broad strategies for maternal health programmes. EPMM aims to improve maternal health and well-being and achieve the SDG target for maternal mortality. Reaching the SDG targets is grounded in a holistic, human rights-based approach to sexual, reproductive, maternal and newborn health, and rests on the foundation of health system strengthening that supports effective implementation for universal health coverage.





### Every Newborn Action Plan (ENAP)

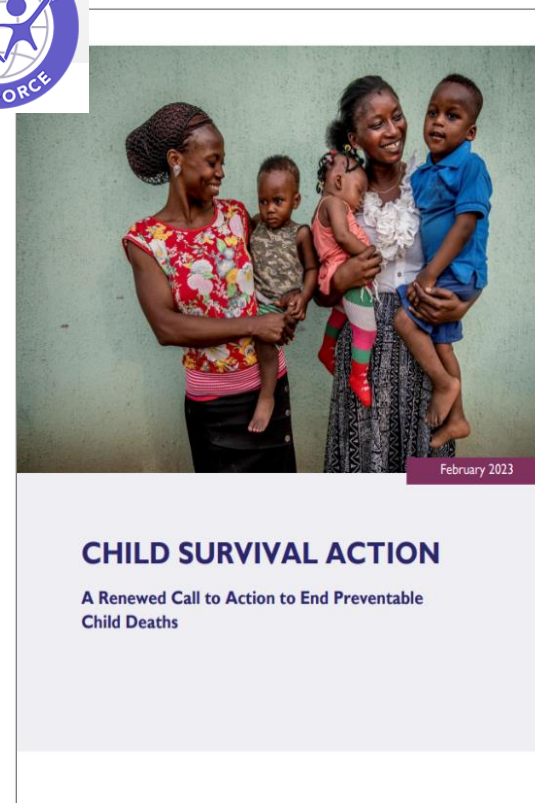
The Every Newborn action plan is based on the latest epidemiology, evidence and global and country learning, and supports the United Nations Secretary-General's Every Woman Every Child movement. The preparation was guided by the advice of experts and partners, led by WHO and UNICEF, and by the outcome of several multistakeholder consultations and a web-based consultation with more than 300 comments.

Discussed at the 67th World Health Assembly, Member States endorsed the document and made firm commitments to put in practice recommended actions. The Director General has been requested to monitor progress towards the achievement of the global goal and targets and report periodically to the Health Assembly until 2030.



### Child Survival Action

The Child Survival Action (CSA) initiative is a renewed call to all partners—national governments, civic and traditional leaders, communities, and regional and global stakeholders—to end preventable child deaths. The initiative urges partners to join hands to address the programmatic and health system challenges that hamper progress in child survival, especially in countries not on track to meet their 2030 targets. Addressing these barriers will require energizing national and subnational leadership, expanding strategic investments in primary health care (PHC) and multi-sectoral actions, mobilizing partnerships across stakeholders, and aligning funding and other initiatives. The initiative identifies opportunities that exist and lays out the steps that partners need to take to reach all children with life-saving interventions.



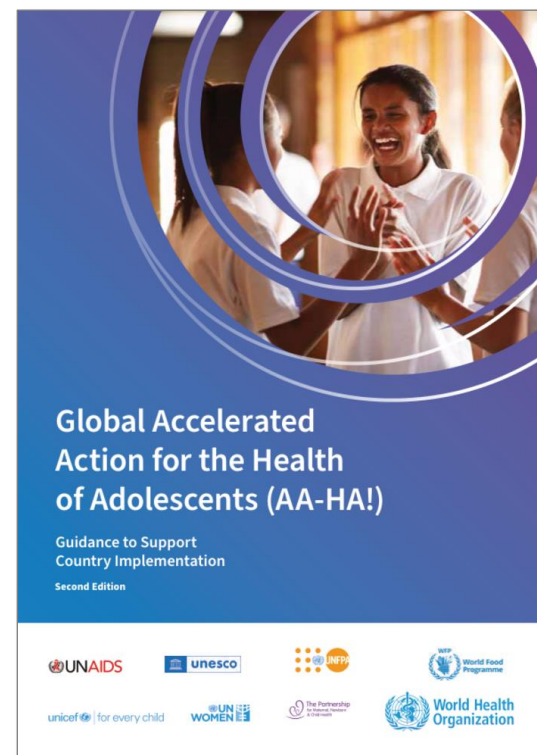
[Child survival action: a renewed call to action to end preventable child deaths](https://www.childhealthtaskforce.org/hubs/child-survival-action)  
(2023)



### Global Accelerated Action for the Health of Adolescents (AA-HA!)

“Adolescence is one of the most rapid and formative phases of human development. The distinctive physical, cognitive, social, emotional and sexual development that takes place during adolescence demands special attention in national development policies, programmes and plans.”<sup>1</sup>

*Global accelerated action for the health of adolescents (AA-HA!): Guidance to support country implementation, second edition* offers insights into the current health and well-being landscape of the world’s over 1.2 billion adolescents, underlining evidence-based solutions and presenting strategies for priority setting, planning, implementing, and evaluating health and well-being programmes. The inclusion of key implementation strategies and real-world case studies make this guide a practical tool for governments in designing and implementing a new generation of adolescent health and well-being programmes.



<sup>1</sup>Source: [Global Accelerated Action for the Health of Adolescents \(AA-HA!\): guidance to support country implementation, second edition](#) (2023)



# WHO TOOLKIT FOR ROUTINE HEALTH INFORMATION SYSTEMS

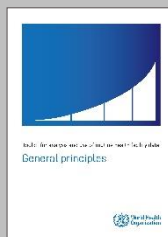
## ANALYSIS AND USE OF HEALTH FACILITY DATA: GUIDANCE FOR MNCAH PROGRAMME MANAGERS

# WHO toolkit for routine health information systems (RHIS) data

WHO has developed [guidance and tools](#) to support countries in strengthening health systems and enhancing RHIS data use

## STANDARDS FOR MEASUREMENT AND ANALYSIS

### General principles



### Core indicators

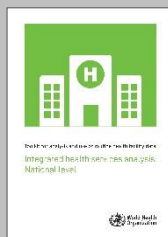


### Data quality



## General guidance for national and district managers

### National level



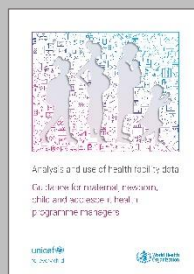
### Mortality & Morbidity Access, coverage & quality Health service inputs

### District level



## PROGRAMME- SPECIFIC GUIDANCE

### MNCAH



### Immunization



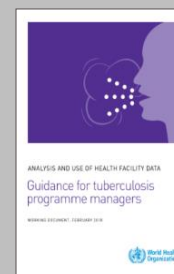
### HIV



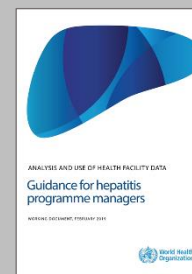
### Malaria



### Tuberculosis



### Hepatitis

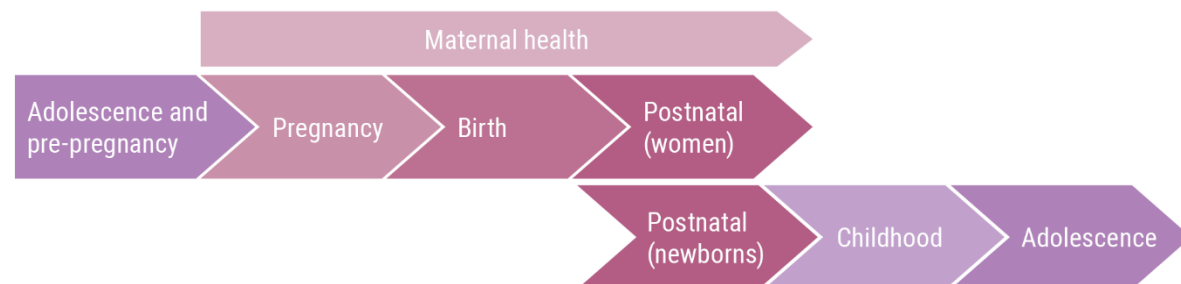


The [guidance](#) document recommends MNCAH indicators for monitoring through routine health information systems

Indicators are grouped into:

- Contacts with health facilities across MNCAH
- Content of care during antenatal, childbirth and postnatal periods
- Specific interventions during childhood and adolescence
- Institutional MNCAH mortality and stillbirths

Alignment with relevant indicators from other WHO RHIS toolkit programme modules (e.g. HIV, immunization, malaria, tuberculosis)



- For each indicator, a definition, computation (numerator/denominator) and suggested disaggregation are provided
- Recommended analyses and visualizations for indicators on MNCAH services and facility-based deaths
- Annex on data quality issues for MNCAH managers
- Links to additional resources



Analysis and use of health facility data

Guidance for maternal, newborn,  
child and adolescent health  
programme managers

unicef  
for every child



World Health  
Organization

- **Indicators are applicable to women, newborns, children, and adolescents seeking care in health facilities:** Indicators in the document are applicable to women, newborns, children and adolescents who seek or receive care at a health facility.
- **Indicators measure evidence-based practices and interventions:** Indicators in the document are adapted from evidence-based guidelines and recommendations.
- **Indicators are relevant across all levels of the health system:** Indicators in the document are relevant for all levels of the health system, from the lowest level health facility to subnational levels (i.e., 2<sup>nd</sup> administrative level), national, and global level.
- **Indicators are based on aggregated facility-based data:** The document focuses on aggregate data rather than individual patient-based longitudinal data.

- **Denominators recommended for the indicators tend to be facility-based:** The document focuses primarily on information collected from health facilities; however, for some indicators it is also possible to calculate values that are more representative of the general population. As such, the default denominator provided for most indicators in this document are facility-based denominators, but population-based denominators have also been suggested where relevant.
- **Relevance and reporting feasibility of indicators should be considered over time:** Some indicators in the document may not be relevant in all settings or feasible for routine reporting through current health information system configurations. However, they serve to monitor utilization or provision of facility-based services for women, newborns, children and adolescents, including key interventions recommended for these populations through WHO guidelines and should be considered for future updates of data collection and reporting tools and/or information systems.
- **Disaggregations of indicators are recommended:** Within the list of indicators are recommended disaggregations (e.g. age, sex, etc.), which may not be currently feasible for all settings depending on whether data collection tools, registers and social/political context allow for indicators to be reported or calculated this way. If it is not currently possible to disaggregate the indicators as recommended, these suggestions can help to guide future revision of data collection tools and systems (e.g. registers, electronic health management information systems, etc.).



# RECOMMENDED ROUTINE HEALTH FACILITY INDICATORS FOR MNCAH



# MNCAH facility indicator catalogue from WHO guidance

## Monitoring contacts with the health facility across MNCAH (1/3)

Indicator	Definition	Numerator	Denominator	Disaggregation <sup>‡</sup>
Monitoring contacts with the health facility across MNCAH				
<b>Antenatal contact(s) in a facility</b>	Number or proportion of pregnant women with an ANC contact in a facility	Number of pregnant women with an ANC contact in a facility	Estimated number of pregnant women	1 <sup>st</sup> contact (ANC1), at least 4 contacts (ANC4+), at least 8 contacts (ANC8+)*  Among adolescents (10-14, 15-19)**
<b>Antenatal client 1<sup>st</sup> contact in first trimester</b>	Proportion of ANC clients with first ANC contact in a facility in the first trimester (up to 12 weeks of gestation)	Number of antenatal clients 1 <sup>st</sup> visit in the first trimester	Number of antenatal clients 1 <sup>st</sup> visit	
<b>Facility births</b>	Number or proportion of women who gave birth in a health facility	Number of women who gave birth in a facility	Estimated number of live births	Among adolescents (10-14, 15-19)**

\*Where feasible: By any specific number of contacts (e.g. ANC1, ANC2, ANC3, etc.)

\*\*Where feasible: By 5-year age groups for all relevant ages (e.g. 10-14, 15-19, 20-24, 25-29, 30-34, etc.)

Indicators in green aligned with GSWCAH.

<sup>‡</sup>All disaggregations are recommended

# MNCAH facility indicator catalogue from WHO guidance

## Monitoring contacts with the health facility across MNCAH (2/3)

Indicator	Definition	Numerator	Denominator	Disaggregation <sup>‡</sup>
Monitoring contacts with the health facility across MNCAH				
<b>Postnatal care for women</b>	Proportion of women receiving postnatal care (PNC) in a facility within a specified time period* after delivery	Number of women who received PNC in a facility within a specified time period after delivery	Number of deliveries in facility	Timing of PNC in accordance with national policy
<b>Postnatal care for newborns</b>	Proportion of newborns receiving PNC in a facility within a specified time period* after delivery	Number of newborns who received PNC in a facility within a specified time period after delivery	Number of live births in facility	Timing of PNC in accordance with national policy

### Note on timing of postnatal care for women and newborns

- The 2022 WHO recommendations on maternal and newborn care for a positive PNC experience recommend a minimum of four PNC contacts.
- The guideline also recommends that for births in health facilities, “healthy women and newborns should receive postnatal care in the facility for at least 24 hours after birth”.
  - For births at home, the guideline recommends that “the first postnatal contact should be as early as possible within 24 hours of birth”.
- For healthy women and newborns, the guideline recommends at least three additional PNC contacts: between 48 and 72 hours; between 7 and 14 days; and during week six after birth.

World Health Organization. *WHO recommendations on maternal and newborn care for a positive postnatal experience*. Geneva: WHO, 2022.

\* Timing of PNC may vary in accordance with national policy

Indicators in green aligned with GSWCAH.

<sup>‡</sup>All disaggregations are recommended

# MNCAH facility indicator catalogue from WHO guidance

## Monitoring contacts with the health facility across MNCAH (3/3)

Indicator	Definition	Numerator	Denominator	Disaggregation <sup>‡</sup>
Monitoring contacts with the health facility across MNCAH				
<b>Outpatient attendance among newborns, children and adolescents*</b>	Number or proportion of outpatient department visits per person per year, among newborns, children and adolescents, by age-group	Number of outpatient visits (new visits + re-visits), in a specified age group	Estimated total population of the specified age group	<ul style="list-style-type: none"> <li>• Age <ul style="list-style-type: none"> <li>– Newborns (&lt;28 days)</li> <li>– Children (1 month - 4 years, 5-9 years)</li> <li>– Adolescents (10-14 years, 15-19 years)</li> </ul> </li> <li>• Sex</li> <li>• New visits vs. repeat visits</li> <li>• Preventive (e.g. well-child and adolescent visits) vs. curative</li> </ul>
<b>Inpatient admissions among newborns, children and adolescents</b>	Number or proportion of inpatient admissions among newborns, children and adolescents, by age group	Number of inpatient admissions x 100 in a specified age group	Estimated total population of the specified age group	<ul style="list-style-type: none"> <li>• Age <ul style="list-style-type: none"> <li>– Newborns (&lt;28 days)</li> <li>– Children (1 month - 4 years, 5-9 years)</li> <li>– Adolescents (10-14 years, 15-19 years)</li> </ul> </li> <li>• Sex</li> </ul>

\*Indicator adapted from WHO [Analysis and use of health facility data - Core health facility indicators](#)

# MNCAH facility indicator catalogue from WHO guidance

Monitoring content of care during ANC, childbirth and PNC (1/3)

Indicator	Definition	Numerator	Denominator
Maternal health and newborn health			
<b>Antenatal client syphilis screening</b>	Proportion of antenatal clients screened for syphilis	Number of antenatal clients screened for syphilis	Number of antenatal clients 1 <sup>st</sup> visit
<b>Antenatal client haemoglobin measured</b>	Proportion of antenatal clients with haemoglobin level measured	Number of antenatal clients with haemoglobin level measured	Number of antenatal clients 1 <sup>st</sup> visit
<b>Antenatal client blood pressure measurement</b>	Proportion of antenatal clients with blood pressure measured	Number of antenatal clients with blood pressure measured	a) Facility-based denominator: Number of antenatal clients 1 <sup>st</sup> visit  b) Population-based denominator: Estimated number of pregnant women
<b>Tetanus vaccination for antenatal client*</b>	Proportion of pregnant women who received tetanus toxoid containing vaccine (TTCV) during ANC	Number of TTCV doses administered during ANC	Estimated number of pregnant women

\*See Reference tab of [Protection at birth against neonatal tetanus](#) page of WHO Immunization Data portal for more information

# MNCAH facility indicator catalogue from WHO guidance

Monitoring content of care during ANC, childbirth and PNC (2/3)

Indicator	Definition	Numerator	Denominator	Disaggregation <sup>‡</sup>
Maternal and newborn health				
<b>Antiretroviral therapy (ART) coverage in pregnant women*</b>	Proportion of HIV-positive pregnant women who received ART during pregnancy and/or at labour and delivery	Number of HIV-positive pregnant women who delivered during the reporting period and received ART during pregnancy and/or at labour and delivery	<p>a) Facility-based denominator: Number of HIV-positive pregnant women who delivered during the reporting period and attended ANC or had a facility-based delivery</p> <p>b) Population-based denominator: Number of HIV-positive pregnant women who delivered during the reporting period</p>	
<b>Intermittent preventive treatment of malaria during pregnancy (IPTp) coverage**</b>	Proportion of pregnant women given sulfadoxine/pyrimethamine for IPTp	Number of pregnant women given sulfadoxine/pyrimethamine for IPTp	<p>a) Population-based denominator: Estimated pregnancies in areas at risk</p> <p>b) Facility-based denominator: Number of antenatal clients 1<sup>st</sup> visit</p>	• By dose (IPTp1, IPTp2, IPTp3, IPTp4)
<b>Caesarean sections</b>	Proportion of deliveries in health facilities by caesarean section	Number caesarean sections in a facility	<p>a) Facility-based denominator: Number of deliveries in facility</p> <p>b) Population-based denominator: Estimated number of births (live + stillbirth)</p>	• Facility type

\*Source of indicator and metadata: WHO [Consolidated guidelines on person-centred HIV strategic information: strengthening routine data for impact](#)

\*\*Source of indicator and metadata: WHO [Analysis and use of health facility data - Guidance for malaria programme managers](#)

Indicators in green aligned with GSWCAH.

<sup>‡</sup>All disaggregations are recommended

# MNCAH facility indicator catalogue from WHO guidance

Monitoring content of care during ANC, childbirth and PNC (3/3)

Indicator	Definition	Numerator	Denominator	Disaggregation <sup>‡</sup>
Maternal and newborn health				
<b>Uterotonic for prevention of post-partum haemorrhage</b>	Proportion of women who gave birth in a facility who received a prophylactic uterotonic immediate after birth for prevention of postpartum hemorrhage	Number of women who gave birth in a facility who received a prophylactic uterotonic immediately after birth	Number of deliveries in facility	
<b>Preterm birth</b>	Proportion of births in health facility that are preterm (less than 37 weeks gestation)	Number of newborns born less than 37 weeks gestation	Number of live births in facility	
<b>Low birthweight</b>	Proportion of live births in facilities with birthweight less than 2500g	Number of newborns born alive in a facility with weight <2500g at birth	Number of live births in facility	• Sub-group of <2000g
<b>Early initiation of breastfeeding</b>	Proportion of live births in facilities put to the breast within one hour of birth	Number of newborns born alive in a facility put to the breast within one hour of birth	Number of live births in facility	

Indicators in green aligned with GSWCAH.

<sup>‡</sup>All disaggregations are recommended

# MNCAH facility indicator catalogue from WHO guidance

Monitoring specific interventions during childhood and adolescents (1/3)

Indicator	Definition	Numerator	Denominator	Disaggregation <sup>‡</sup>
Child and adolescent health				
<b>Diphtheria, tetanus toxoid and pertussis vaccination – 3<sup>rd</sup> dose (DTP3)*</b>	Proportion of target population of children who have received three doses of the combined DTP vaccine	Number of children receiving the 3 <sup>rd</sup> dose of the combined DTP vaccine	Estimated number of target population	
<b>Measles vaccination*</b>	Proportion of target population of children who have received the measles vaccine	Number of children receiving the measles vaccine	Estimated number of target population	• By dose of vaccine (per national schedule)
<b>Acute respiratory infection (ARI) consultation</b>	Total number of children presenting to a health facility with any sign of ARI	Number of children presenting to a health facility with any sign of ARI	N/A	• Age: 0-4, 5-9
<b>Childhood pneumonia cases treated with amoxicillin</b>	Proportion of childhood cases of pneumonia given/prescribed amoxicillin in health facilities	Number of children with pneumonia given/prescribed amoxicillin in facilities	Number of children with pneumonia seen in facilities	• Age: 0-4, 5-9 • Treatment type (dispersible tablet, oral syrup; non-dispersible tablet)

\*Indicator adapted from: WHO [Analysis and use of health facility data - Guidance for immunization programme managers](#)

Indicators in green aligned with GSWCAH.

<sup>‡</sup>All disaggregations are recommended



# MNCAH facility indicator catalogue from WHO guidance

Monitoring specific interventions during childhood and adolescents (2/3)

Indicator	Definition	Numerator	Denominator	Disaggregation <sup>‡</sup>
Child and adolescent health				
<b>Childhood diarrhoea cases treated</b>	Proportion of childhood cases of diarrhoea given/prescribed treatment for diarrhoea (e.g. ORS and Zinc) in health facilities	Number of children who received treatment for diarrhoea in facilities	Number of children with diarrhoea seen in facilities	<ul style="list-style-type: none"> <li>• Age: 0-4, 5-9</li> <li>• Treatment type: ORS and Zinc/ORS/Zinc</li> </ul>
<b>Childhood malaria cases given artemisinin-based combination therapy (ACT)*</b>	Proportion of childhood malaria cases treated with ACT	Number of childhood malaria cases treated with ACT	Number of childhood malaria cases diagnosed	<ul style="list-style-type: none"> <li>• Age: 0-4, 5-9</li> </ul>
<b>Notification of childhood tuberculosis (TB) cases**</b>	Number of childhood TB cases notified in a specified time period, usually one year	Number of childhood TB cases notified in a specified time period, usually one year	N/A	<ul style="list-style-type: none"> <li>• Age: 0-4, 5-9</li> <li>• Treatment history (new and relapse (incident cases) or previously treated, excluding relapse)</li> </ul>

\*Indicator adapted from: WHO [Analysis and use of health facility data - Guidance for malaria programme managers](#)

\*\*Indicator adapted from: WHO [Analysis and use of health facility data - Guidance for tuberculosis programme managers](#)

NB: These documents recommend age disaggregations of <5, 5-14, and 15+ years, however the disaggregations recommended here are consistent with all recommended age disaggregations in the MNCAH guidance.

Indicators in green aligned with GSWCAH.

<sup>‡</sup>All disaggregations are recommended

# MNCAH facility indicator catalogue from WHO guidance

Monitoring specific interventions during childhood and adolescents (3/3)

Indicator	Definition	Numerator	Denominator	Disaggregation <sup>‡</sup>
Child and adolescent health				
<b>Growth monitoring: anthropometric status of children*</b>	Proportion of children measured in a facility who are underweight/ overweight/ obese and/or <b>stunted</b> and/or wasted	Number of children who are underweight/ overweight/obese and/or <b>stunted</b> and/or wasted who were measured in a facility	Number of children seen in a facility	<ul style="list-style-type: none"> <li>• By underweight, overweight, obese, <b>stunted</b>, wasted</li> <li>• Sex</li> </ul>
<b>Human papillomavirus (HPV) vaccination programme coverage – last dose**</b>	Proportion of target population who received the last dose of the HPV vaccine	Number of last doses of HPV vaccine administered	Estimated number of target population	<ul style="list-style-type: none"> <li>• Sex</li> </ul>
<b>Injury hospitalisation rate among adolescents</b>	Number of hospitalised cases of specific types of injuries (e.g. road traffic injuries, fire-related burns, poisonings, falls, and drowning) among adolescents (10-19 years) per 100 000 adolescent population during a year	Number of hospitalised cases of a specific type of injury among adolescents (10-19 years) during a given year x 100 000	Estimated number of adolescents (10-19 years) during the same year	<ul style="list-style-type: none"> <li>• Age: 10-14, 15-19</li> <li>• Sex</li> <li>• Type of injury</li> </ul>

\*This indicator is still under development by UNICEF and WHO for *forthcoming* guide on analysis and use of nutrition data from RHIS

\*\*See Reference tab of [HPV vaccination coverage](#) page of WHO Immunization Data portal for more information

Indicators in green aligned with GSWCAH.

<sup>‡</sup>All disaggregations are recommended

# MNCAH facility indicator catalogue from WHO guidance

Monitoring facility-based maternal, newborn, child and adolescent deaths and stillbirths (1/2)

Indicator	Definition	Computation	Disaggregation <sup>‡</sup>
MNCAH facility-based deaths			
<b>Institutional maternal mortality</b>	<p>Number or proportion of women who die in the health facility either while pregnant or within 42 days of termination of pregnancy, irrespective of the duration and the site of the pregnancy, from any cause related to or aggravated by the pregnancy or its management, but not from accidental or incidental causes</p> <p>This can include women who gave birth outside a facility but who died in the facility</p>	<p>Number of inpatient maternal deaths in health facilities</p> <p><u>If calculating this indicator as a proportion (per 100), the following formulation is recommended, disaggregated by age group:</u></p> <p>N: Number of inpatient maternal deaths x 100 D: Number of discharges (including deaths) among population of interest</p>	<ul style="list-style-type: none"> <li>• Among adolescents (10-14, 15-19)</li> <li>• Facility type</li> <li>• By cause of death (classified by ICD-MM)</li> </ul>
<b>Institutional stillbirths</b>	<p>Number or proportion of babies born in a health facility with no signs of life</p> <p>(Baby delivered in a facility with no signs of life and born after 28 weeks of gestation or weighing at least 1000g)</p>	<p>Number stillbirths in facility</p> <p><u>If calculating this indicator as a proportion (per 100), the following formulation is recommended:</u></p> <p>N: Number of stillbirths in facilities x 100 D: Total number of births in facility (live and stillbirths)</p>	<ul style="list-style-type: none"> <li>• Antepartum (macerated) / Intrapartum (fresh)</li> <li>• Facility type</li> </ul>

Indicators in green aligned with GSWCAH.

<sup>‡</sup>All disaggregations are recommended

# MNCAH facility indicator catalogue from WHO guidance

Monitoring facility-based maternal, newborn, child and adolescent deaths and stillbirths (2/2)

Indicator	Definition	Computation	Disaggregation <sup>‡</sup>
MNCAH facility-based deaths			
<b>Institutional mortality among newborns, children and adolescents*</b>	Number <u>or</u> proportion of inpatient deaths in health facilities, by age group	<p>Number of inpatient deaths in health facilities, by age group</p> <p><i><u>If calculating this indicator as a proportion (per 100), the following formulation is recommended:</u></i></p> <p>N: Number of inpatient deaths x 100 D: Number of discharges (including deaths) among population of interest (e.g. newborns, children or adolescents)</p>	<ul style="list-style-type: none"> <li>• Age <ul style="list-style-type: none"> <li>– Newborns (0-6 days, 7-28 days)</li> <li>– Children (1 month - 4 years, 5-9 years)</li> <li>– Adolescents (10-14 years, 15-19 years)</li> </ul> </li> <li>• Sex</li> <li>• Facility type</li> <li>• Cause of death (classified by ICD-10 or ICD-11 in accordance with what is used in the country)</li> </ul>

\*Indicator adapted from WHO [Analysis and use of health facility data - Core health facility indicators](#)

Indicators in green aligned with GSWCAH.

<sup>‡</sup>All disaggregations are recommended



# MINIMUM SET OF INDICATORS FOR ROUTINE MNCAH PROGRAMME MONITORING THROUGH RHIS

# Consultation to decide on a minimum set of indicators for routine MNCAH programme monitoring through RHIS

The guidance document [\*Analysis and use of health facility data: guidance for maternal, newborn, child and adolescent health programme managers\*](#) presents a catalogue of indicators that can be reported through RHIS data, however *from this larger menu of indicators*, **a minimum subset of key, commonly available indicators has been suggested to support routine programme monitoring, planning and modification across MNCAH.**

The minimum set was determined through an online consultation form disseminated by WHO, which was **completed by 147 respondents from 42 countries** from March to April 2023.

**The criteria for selection of the indicators in this minimum set were:**

- representativity across the MNCAH continuum;
- actionability for managers; and
- feasibility for monitoring through existing HMIS configurations.

The minimum set of MNCAH RHIS indicators were those considered priority for routine programme monitoring by **at least 80% of the total respondents (n=147) or at least 80% of the respondents from Ministries of Health (n=75 (included in the total 147)).**

- A sub-analysis of responses from MoH respondents found largely the same minimum set of MNCAH RHIS indicators to be considered priority for routine programme monitoring, however there were a few additional indicators that the majority of MoH respondents prioritized and thus were also included.

- 1 Antenatal care contact(s) in a facility**  
Proportion of pregnant women with an ANC contact in a facility, by contact (e.g. ANC1, ANC4+, ANC8+)
- 2 Antiretroviral therapy (ART) coverage in pregnant women\***  
Proportion of HIV+ pregnant women who received ART during pregnancy and/or at labour and delivery
- 3 Facility births**  
Proportion of women who gave birth in a health facility
- 4 Caesarean sections**  
Proportion of deliveries in health facilities by caesarean section
- 5 Low birthweight**  
Proportion of live births in facilities with birthweight <2500 g
- 6 Early initiation of breastfeeding**  
Proportion of live births in facilities put to the breast within one hour of birth
- 7 Postnatal care for women**  
Proportion of women receiving PNC in a facility within a specified time period after delivery
- 8 Postnatal care for newborns**  
Proportion of newborns receiving PNC in a facility within a specified time period after delivery
- 9 Diphtheria, tetanus toxoid and pertussis vaccination – 3<sup>rd</sup> dose**  
Proportion of target population of children who have received 3 doses of the combined DTP vaccine
- 10 Growth monitoring: anthropometric status of children**  
Proportion of children measured in a facility who are underweight/overweight/obese and/or stunted and/or wasted (*by each anthropometric status*)
- 11 Acute respiratory infection (ARI) consultation**  
Total number of children presenting to a health facility with any sign of ARI
- 12 Human papillomavirus (HPV) vaccination programme coverage – last dose**  
Proportion of target population who received the last dose of the HPV vaccine
- 13 Contraceptive commodity distribution**  
Number of clients who accept contraceptives in facilities
- 14 Institutional MNCAH mortality and stillbirths**  
Institutional maternal, newborn, child and adolescent mortality and stillbirths (by population group) – *See separate indicators*
- 15 Completeness of facility reporting**  
Proportion of expected facility reports that are actually received

*\*Depending on HIV prevalence in the setting*

NB: *Contraceptive commodity distribution* was not an indicator selected through the WHO global consultation but is included as a tracer indicator for family planning.

NB: *Completeness of facility reporting* was not an indicator selected through the WHO global consultation but is recommended in the WHO MNCAH guidance for context/interpretation of RHIS indicators.





# INCORPORATING RECOMMENDED MNCAH INDICATORS INTO NATIONAL RHIS

# How can countries integrate relevant indicators from the WHO toolkit for RHIS into national systems? (1/2)

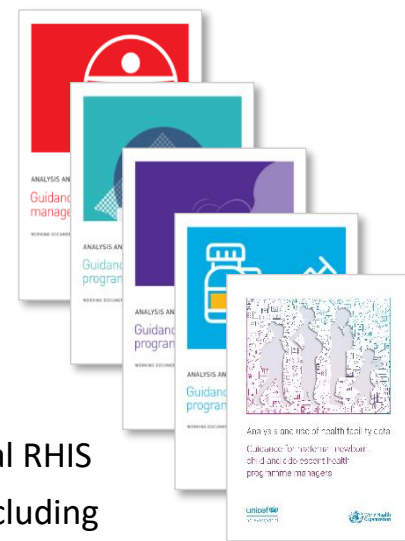
The health programme modules of the [WHO toolkit for RHIS data](#) suggest indicators for monitoring through national routine health information systems, including recommended numerators and denominators for these indicators.

## Mapping data elements and indicators against national recording and reporting tools

For indicators from the WHO guidance relevant to the country setting, mapping which of these are currently reported through the RHIS, facility registers, patient records, etc. is needed.

### For MNCAH:

1. Review the indicators from the WHO guidance against the MNCAH indicators currently reported through the national RHIS
  - Note the numerator and denominator used to generate these indicators in the national RHIS
  - Note any similar or proxy indicators currently reported through the national RHIS (including numerator and denominator)
2. Review the data collection and reporting forms/tools where these data elements are captured
  - If the indicators or data elements are not already reported in the RHIS, are they captured through registers, patient records, or otherwise?
  - Through which register(s) are the data elements reported?
3. Assess which indicators could or should be added to the RHIS
  - Which indicators are relevant and priority to the country?
  - How could they be added to the national RHIS indicator catalogue?



## How can countries integrate relevant indicators from the WHO toolkit for RHIS into national systems? (2/2)

The results of mapping the indicators/data elements will reveal different actions/steps that may need to be taken to incorporate the MNCAH indicators into the national RHIS.

**If the indicator is not currently reported in the national RHIS, but data elements (numerators, denominators) to calculate them are reported**

Discuss with responsible MoH officer if the indicators could be calculated/reported from the existing data elements or identify when the national RHIS indicator catalogue will next be updated and request to add them then.

**If the indicator or specific data elements are not currently reported in RHIS but are captured in existing tools (e.g. facility registers, patient records, etc.)**

Assess whether these data elements could be aggregated from the existing data/tools for inclusion in and reporting through the RHIS. Discuss with responsible MoH officers on the process to do this.

**If the data elements are not captured in existing collection tools**

Determine when facility registers, patient records/forms, etc. will next be updated and discuss with responsible offices how to add these elements to the tools for eventual reporting through RHIS

**Electronic registers and/or data collection and recording tools/forms may make this process easier and faster**

However, understanding the MoH governance processes around how and when the national RHIS indicator catalogue and reporting tools/forms are updated is still necessary.

- Complete exercises under **Routine health facility indicators for MNCAH** in *Companion exercises to strengthen analysis and use of health facility data for MNCAH.*
- Materials needed:
  - MNCAH RHIS indicators\_country mapping template.xlsx
  - Recent RHIS/HMIS report or access to RHIS/HMIS indicator catalogue
  - Facility registers for MNCAH (i.e. antenatal, labour and delivery, postnatal, etc.)
- Review and discuss results of MNCAH RHIS indicator mapping, including processes and actions to report new indicators through the national RHIS