

TECHNICAL BRIEF

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A close-up photograph of two young girls of African descent. The girl on the left is wearing a blue headscarf and a blue patterned top, smiling broadly with her mouth open. The girl on the right is wearing a pink headscarf and a pink top, also smiling. They are outdoors, with a blurred background.

# Levels and Trends of Child Mortality in WEST AND CENTRAL AFRICA

SEPTEMBER 2023

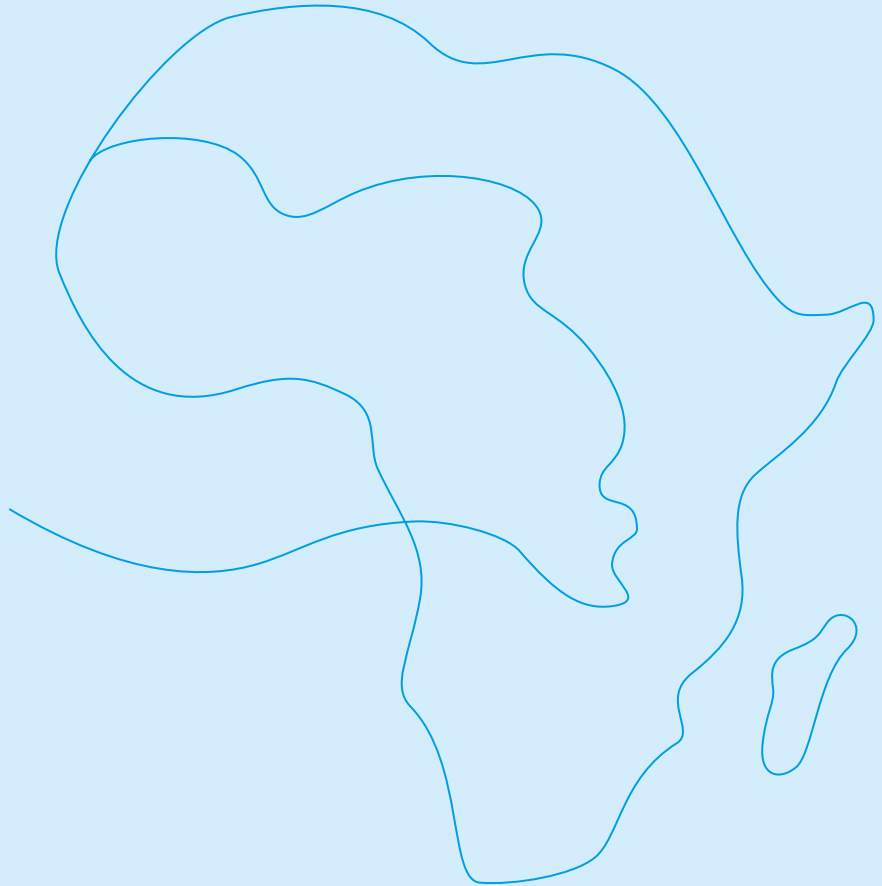
## Acknowledgment

*This brief is the joint work with UNICEF WCARO Health and HIV section, WCARO Nutrition section, WCARO Country Offices, HQ Health section, and Division of Data, Analytics, Planning and Monitoring. WCARO Planning, Monitoring, and Research section has reviewed the content.*

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## BACKGROUND

Around 95 million children under 5 years are estimated to live in the West and Central Africa Region (WCAR) in 2021<sup>1</sup>. The region is the home of 14% of all children under five in the world. However, the children in the region have the lowest chance of survival globally and bear a disproportionate share of the global burden of child rights deprivations. Also, ten countries in the region were listed as having fragile and conflict-affected situations impacting the health and well-being of children<sup>2</sup>.

The United Nations Inter-agency Group for Child Mortality Estimation has released the 2022 round of child mortality estimates up to the year 2021 and the United Nations Maternal Mortality Estimation Inter-Agency Group published a round of estimates covering 2000 to 2020 for maternal mortality<sup>3,4</sup>. This technical brief shows the snapshot of analysis on levels and trends of child and maternal mortality and coverage of essential health and nutrition services for children in the WCAR. We aim to share our insights on where we should intensify our efforts to end all preventable deaths with the decision makers and key stakeholders.



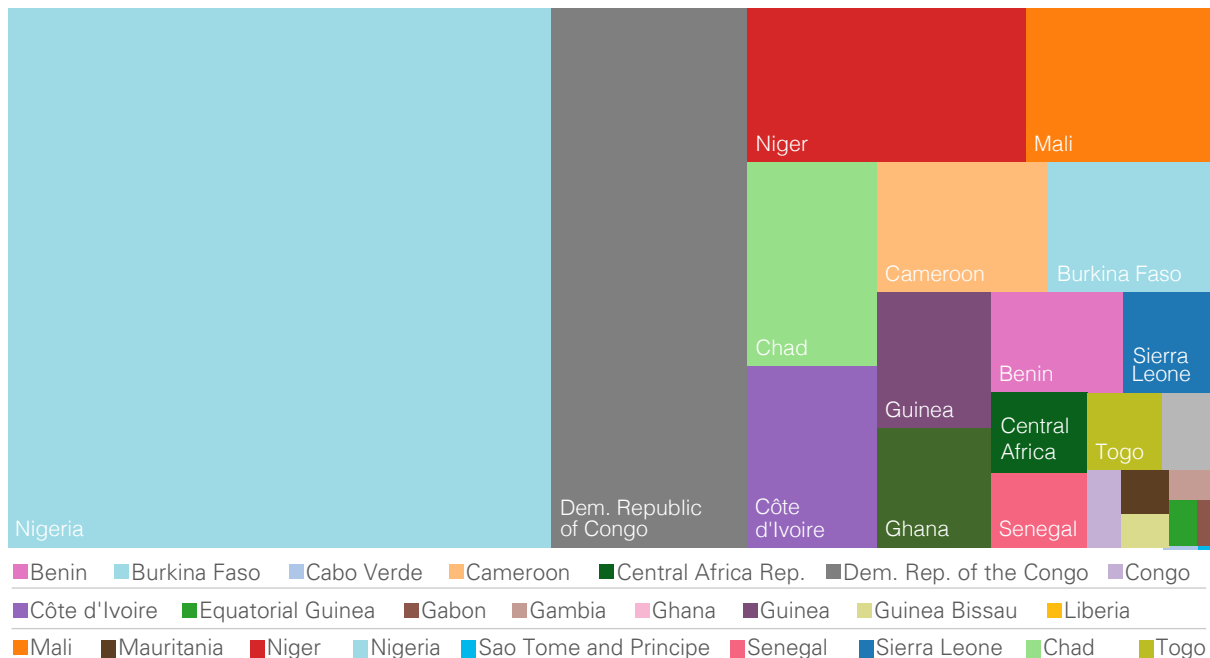
# LEVELS OF CHILD AND MATERNAL MORTALITY IN WCAR

## Children aged under 5

In 2021, 5 million children died globally before turning five years old and nearly 40% of these deaths occurred in the WCAR, which totals almost 1.9 million deaths<sup>3</sup>. One child dies every 17 seconds in this region<sup>3</sup>. Among 24 countries in the region, the deaths from Nigeria and the Democratic Republic of Congo (DRC) account for more than 60% of deaths in

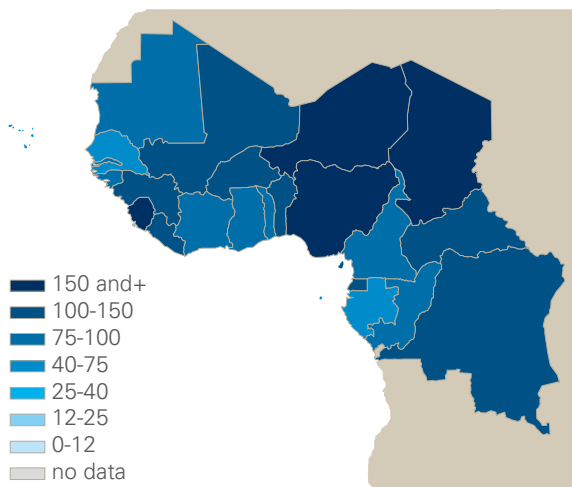
WCAR (Nigeria: 45%, the DRC: 16%) (Figure 1)<sup>3</sup>. In terms of the under-five mortality rate (U5MR), the estimate in the WCAR is 91.5 deaths per 1,000 live births. It is the highest among all regions<sup>3</sup>. The U5MR in the region's countries varies from 14 deaths per 1,000 live births in Cabo Verde to 115 in Niger (Figures 2 and 3)<sup>3</sup>.

Figure 1. Number of under-five deaths in countries in WCAR, 2021



The size of the rectangles is proportional to the number of under-five deaths.

Figure 2. Under-five Mortality Rate in countries in WCAR, 2021



91,5 deaths per 1,000 live births

*This map does not reflect a position by UN IGME agencies on the legal status of any country or territory or delimitation of any frontiers.*

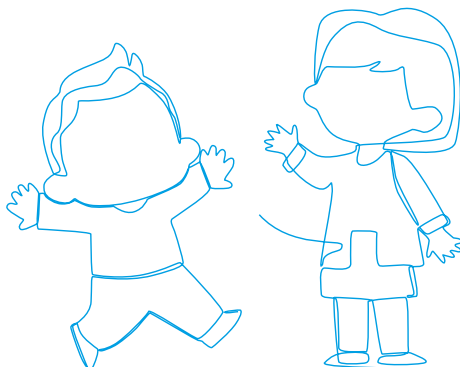
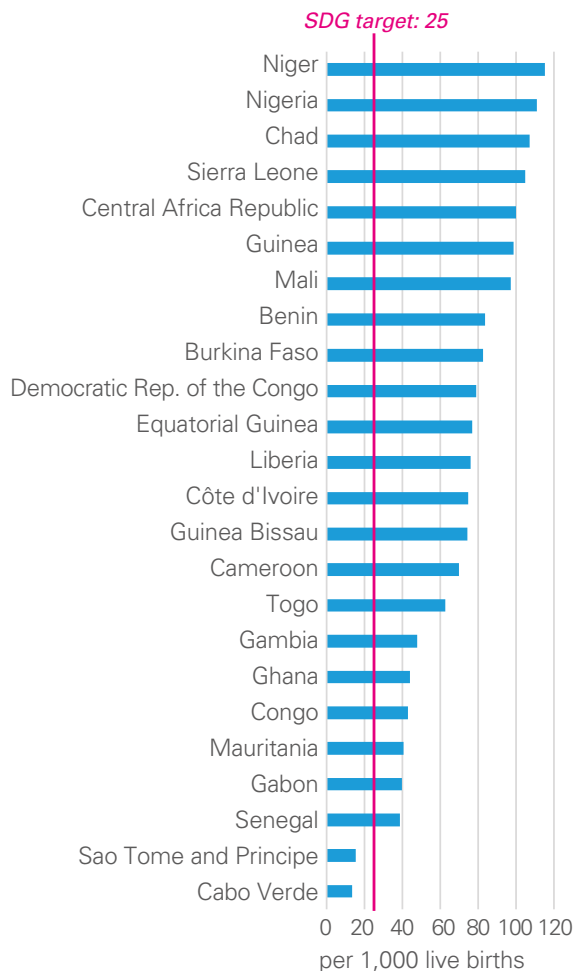


Figure 3. Under-five Mortality Rate in WCAR countries, 2021

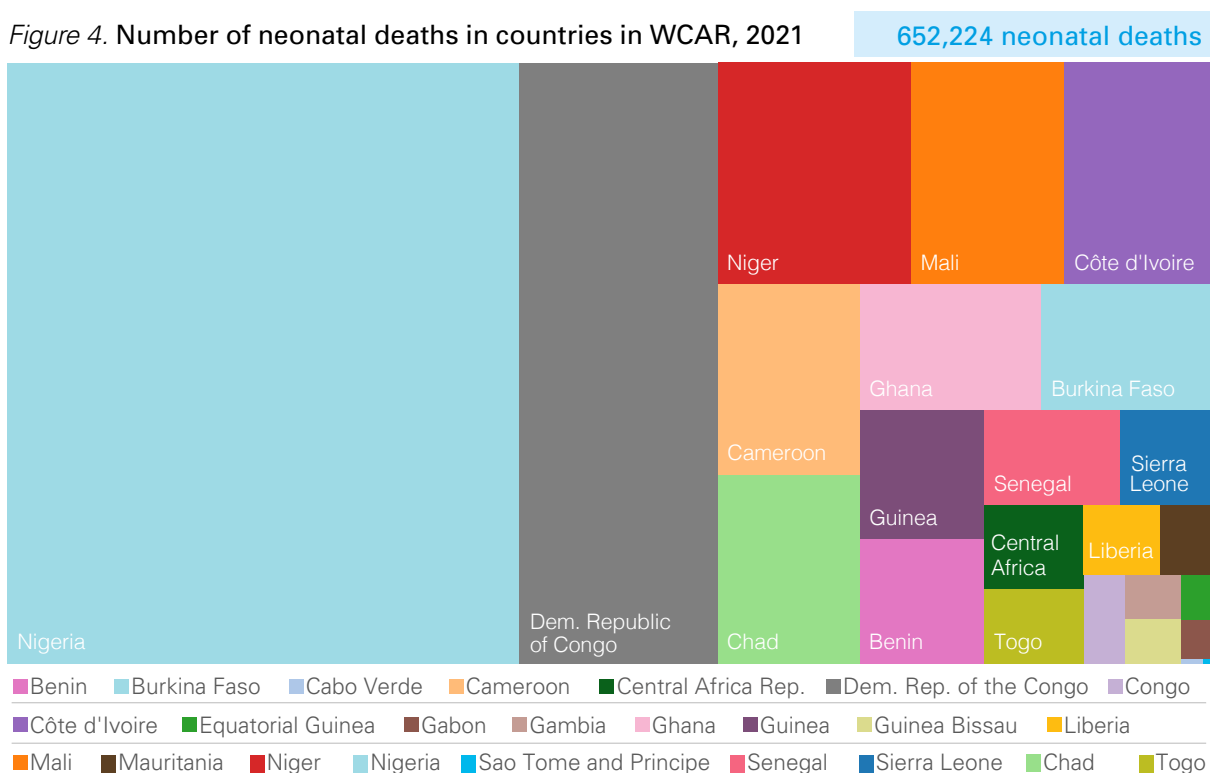


## Children during the first month of life

In 2021, approximately 2.3 million children died globally during the first month of life and nearly 30% of these deaths occurred in the WCAR, with over 650,000 deaths<sup>3</sup>. One in 33 babies died before reaching the first month of life. Nigeria and the DRC account for almost 60% of the deaths in WCAR (Nigeria: 42%, the DRC: 16%) (Figure 4)<sup>3</sup>.

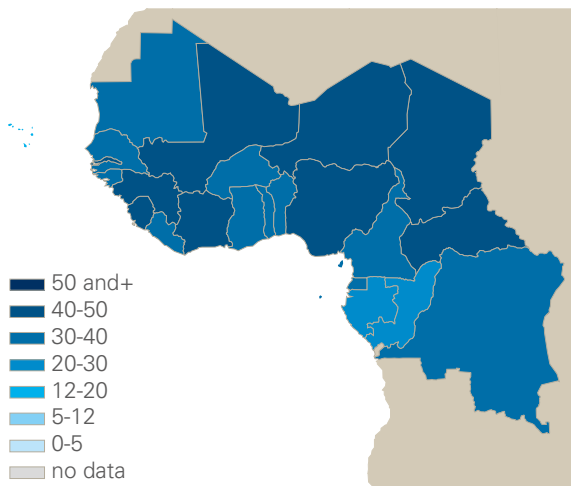
The estimated neonatal mortality rate (NMR) in the WCAR is 30.5 deaths per 1,000 live births and it is the highest of all regions<sup>3</sup>. Nine countries have NMR higher than 30 deaths per 1,000 live births and Nigeria has the highest NMR with 34.9 and Sao Tome and Principe has the lowest NMR with 7.6 (Figures 5 and 6)<sup>3</sup>.

Figure 4. Number of neonatal deaths in countries in WCAR, 2021



The size of the rectangles is proportional to the number of neonatal deaths.

Figure 5. Neonatal mortality rates in countries in WCAR, 2021

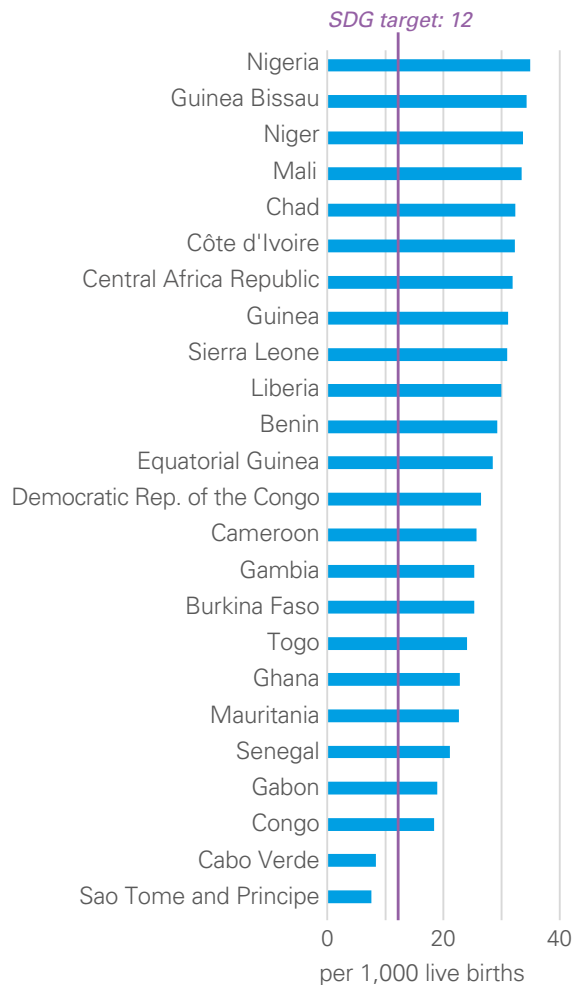


**30,5 deaths per 1,000 live births**

*This map does not reflect a position by UN IGME agencies on the legal status of any country or territory or delimitation of any frontiers.*



Figure 6. Neonatal Mortality Rate in WCAR countries, 2021

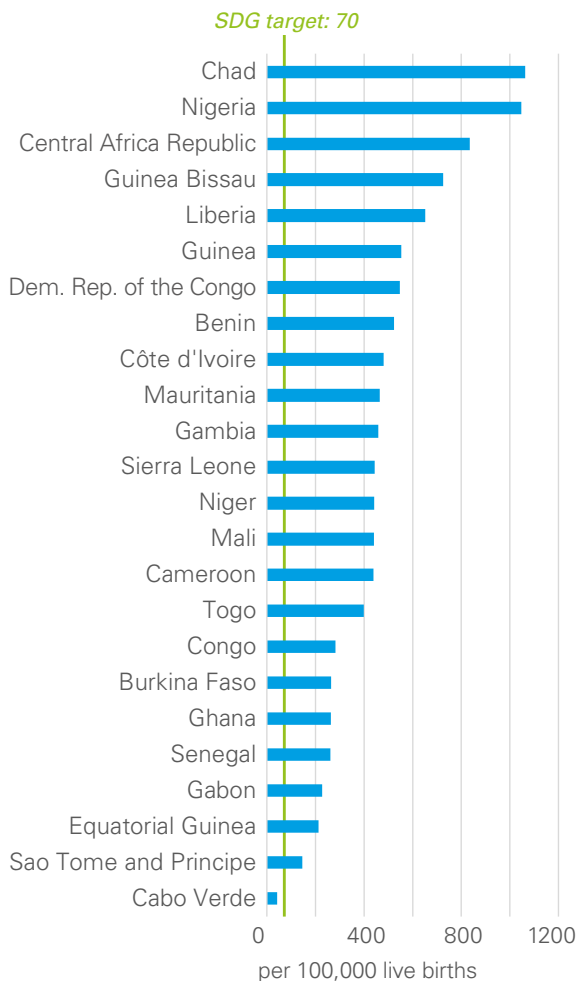


## Maternal Mortality

Mothers – including adolescent mothers – are still dying due to preventable or treatable causes. The latest estimates show that 287,000 pregnant women died in 2020 globally and more than half of these deaths took place in the WCAR, which accounts for 147,000 deaths.<sup>4</sup> This means, one woman dies around every 4 minutes<sup>4</sup>. The lifetime risk of maternal death, which is the probability that a 15-year-old girl will die from pregnancy or childbirth complications in her lifetime, in the region is 1 in 27 in 2020<sup>4</sup>, it is nearly 8 times higher than the global risk<sup>4</sup>. The leading cause of death among adolescent girls aged 15-19 years is maternal conditions in WCAR<sup>6</sup>. The maternal mortality ratio (MMR) in the region is 724 per 100,000 live births and this is the highest among all the UNICEF regions<sup>4,5</sup>. Two countries (Chad and Nigeria) have an MMR of more than 1000 per 100,000 live births with the lowest figure being 42 in Cabo Verde (Figure 7)<sup>4</sup>.



Figure 7. Maternal mortality ratio in WCAR countries, 2020

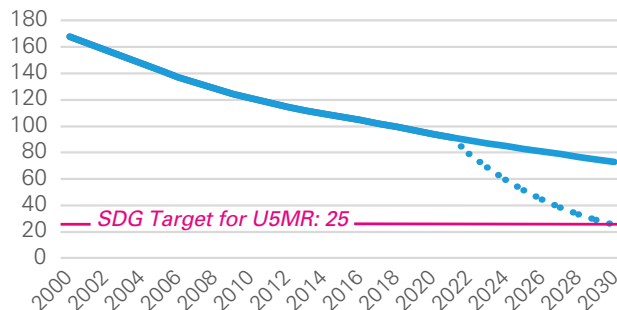




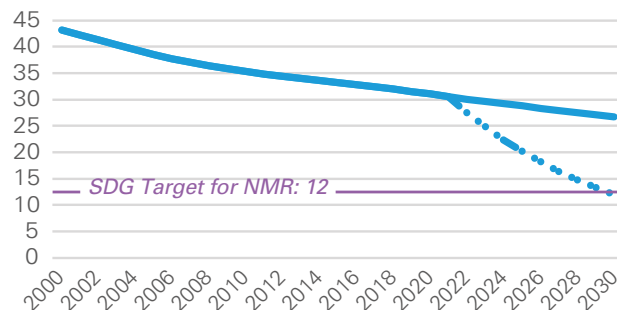
## Trends of Child Mortality

The region reduced the U5MR from 168 to 91 per 1,000 live births from 2000 to 2021 (Figures 8)<sup>3</sup>. The NMR was reduced from 43 to 31 per 1000 live births in the same period (Figures 9)<sup>3</sup>. Despite this progress, the region urges to accelerate progress to achieve Sustainable Developmental Goals (SDGs) for child survival targets.

*Figure 8. Trend and projection of U5MR to reach SDG target by 2030*



*Figure 9. Trend and projection of NMR to reach SDG target by 2030*

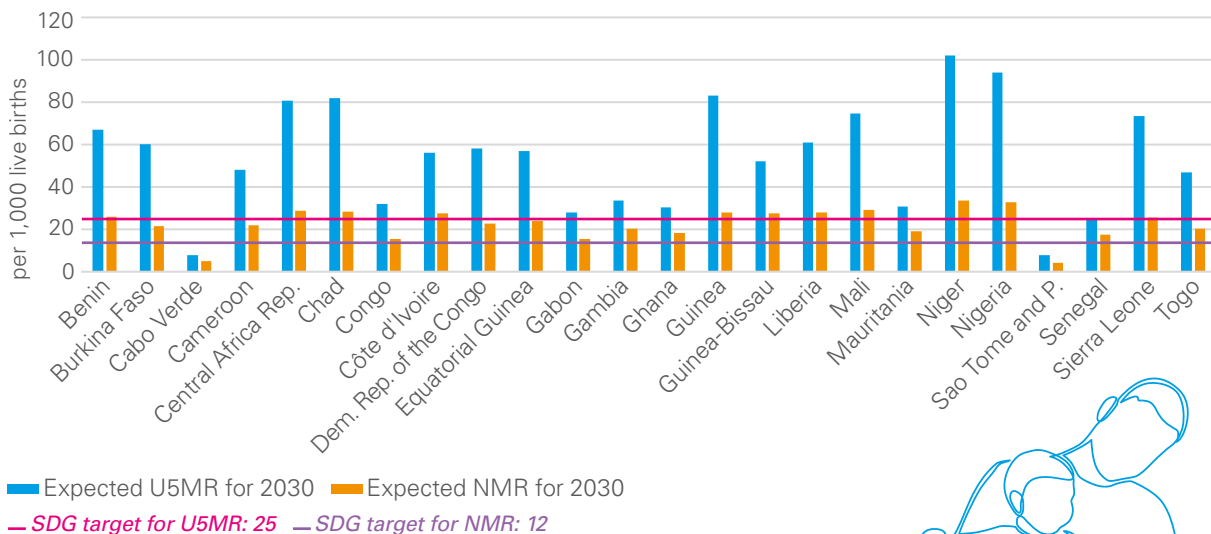


## Trends of Child Mortality

Twenty-one countries in the region are not on track to achieve the SDGs for U5MR in 2030 if they continue with their current trends (Figure 10)<sup>3</sup>. Twenty-two countries are not on track to achieve the SDG target for NMR in 2030 (Figure 10)<sup>3</sup>.

The Average Annual Rate of Reduction (1990-2021) for U5MR, mortality rate for children aged 1-59 months, and NMR for WCAR are 2.47%, 2.93%, and 1.47%, respectively (Figure 11)<sup>3</sup>. The progress in reducing mortality among newborns is slower than in older age groups.

Figure 10. The expected U5MR and NMR with the current trends



21 countries are not on track to meet the SDG target in WCAR for U5MR

22 countries are not on track to meet the SDG target in WCAR for NMR

Neonatal mortality rate declines more slowly than under-five mortality rate and mortality rate 1-59 months.

Figure 11. The observed Average Annual Rate of Reduction (AARR) for U5MR, Mortality rate 1-59 months, and NMR, 1990-2021

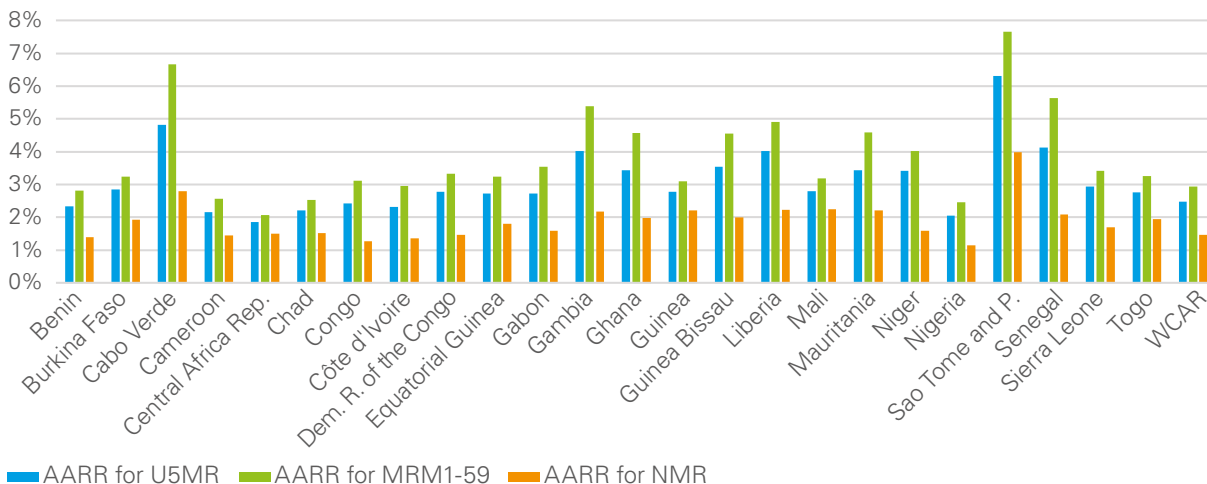
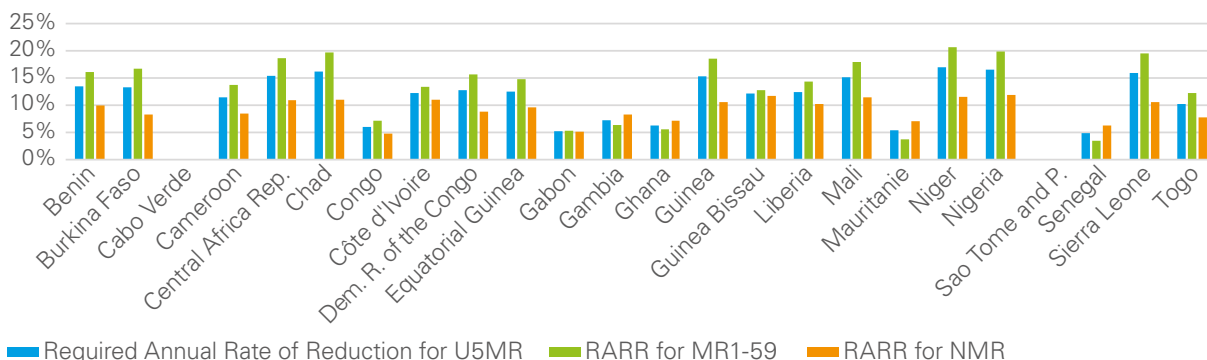


Figure 12. Required Annual Rate of Reduction (RARR) for U5MR, Mortality rate 1-59 months and NMR, 2022-2030



Cabo Verde and Sao Tome and Principe do not have RARR as they have reached the SDG targets.



## Trends of Child Mortality

To meet the target for U5MR, 16 countries need to accelerate to a required annual rate of reduction of over 10% (Figure 12)<sup>3</sup>. Nine countries must accelerate their currently observed annual rate of reduction by more than five times to achieve the target for NMR (Figure 12)<sup>3</sup>.

If the countries in the region are on track, 6.9 million children could be saved. This includes over 4.8 million children aged 1-59 months and over 2.1 million newborn infants.

**To meet the target for U5MR, 16 countries need to accelerate the reduction rate more than 10%.**

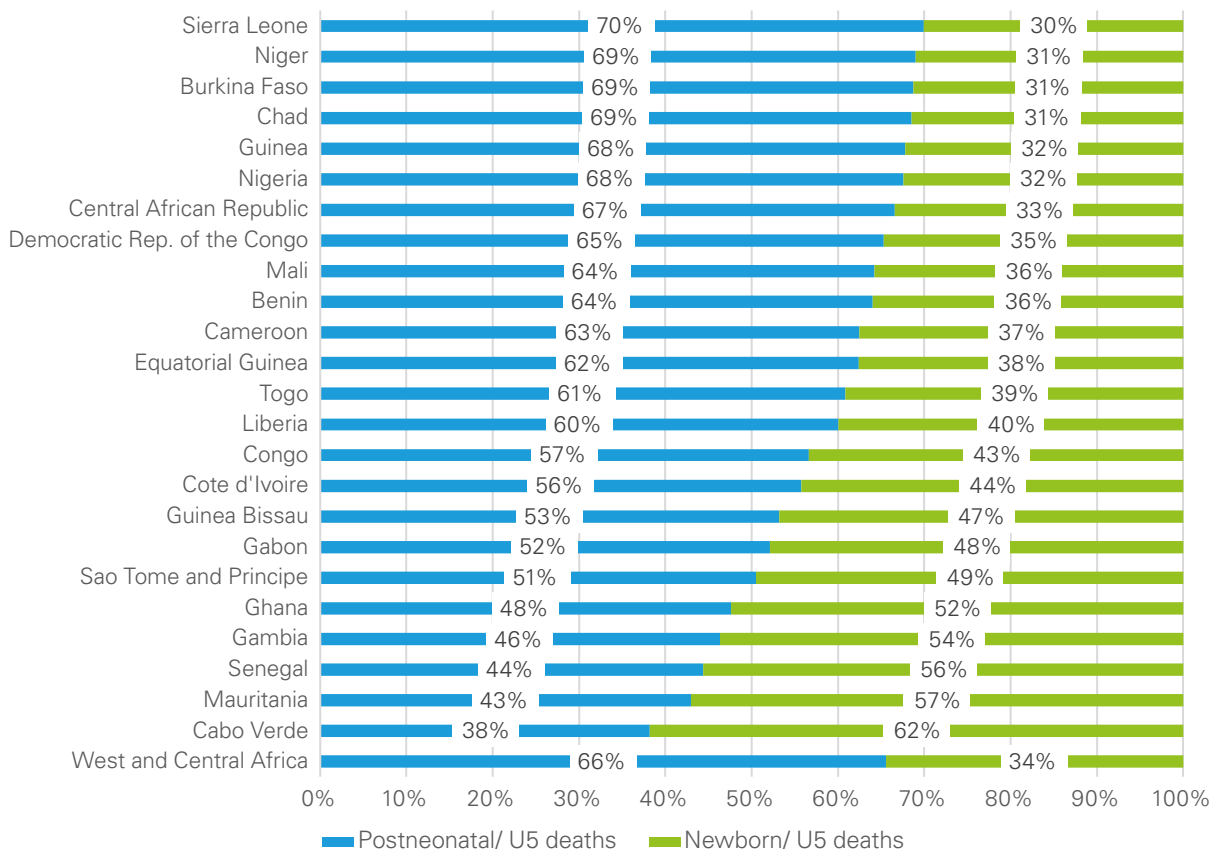
**To meet the target for NMR, 9 countries need to accelerate the reduction rate more than 5 times.**

While the average annual reduction rate was slower for NMR in the region up to now and the region needs to accelerate the progress for NMR, a significant proportion of deaths occurs between the first and 59<sup>th</sup> month (figure 13)<sup>3</sup>.

The conditions can be prevented and most often treated at the primary health care level.



Figure 13. The proportion of deaths aged 1-59 months and neonatal deaths among under-five deaths



While NMR declines more slowly, the region still sees a significant proportion of deaths between 1 and 59 months. The most deaths can be prevented and most often treated at the primary health care level.



## Causes of Child Mortality

One-third of deaths among children under 5 are due to causes during the first month of life in 2019 (Figure 14)<sup>7</sup>. They include prematurity, birth asphyxia and trauma, acute respiratory infection, sepsis, and other infectious conditions, which can be prevented and addressed by high-quality antenatal and intrapartum care, essential newborn care for every pregnant woman and newborn and with care for newborns who are born prematurely (Figure 14)<sup>7</sup>.

After the first month of life, malaria, diarrhea, and acute respiratory infections are still three major causes, which can be treated by high-quality and high-impact child survival interventions through primary health care (Figure 14)<sup>7</sup>.

Principal Causes of deaths are during neonatal period:

- prematurity, birth asphyxia and birth trauma, acute respiratory infection ;

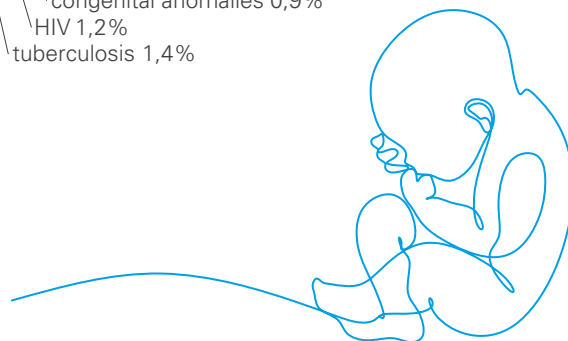
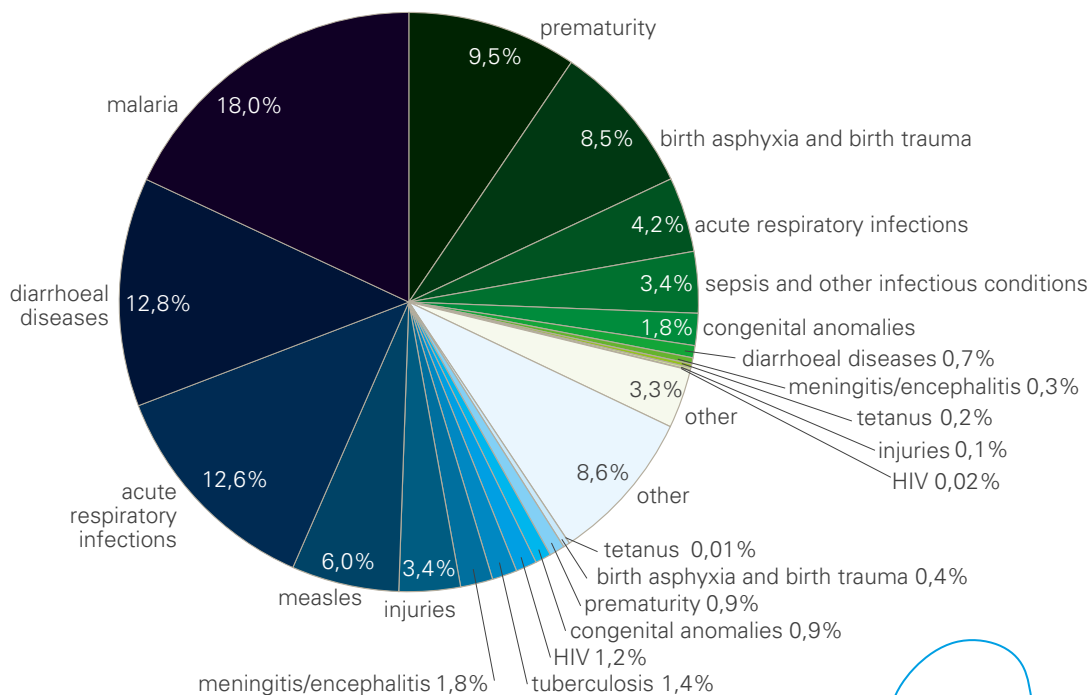
for children between 1 and 59 months:

- malaria, diarrhoea, acute respiratory infection.

Figure 14. Causes of under-five children mortality, 2019

Deaths among children  
aged 1-59 months: 68%

Neonatal deaths: 32%

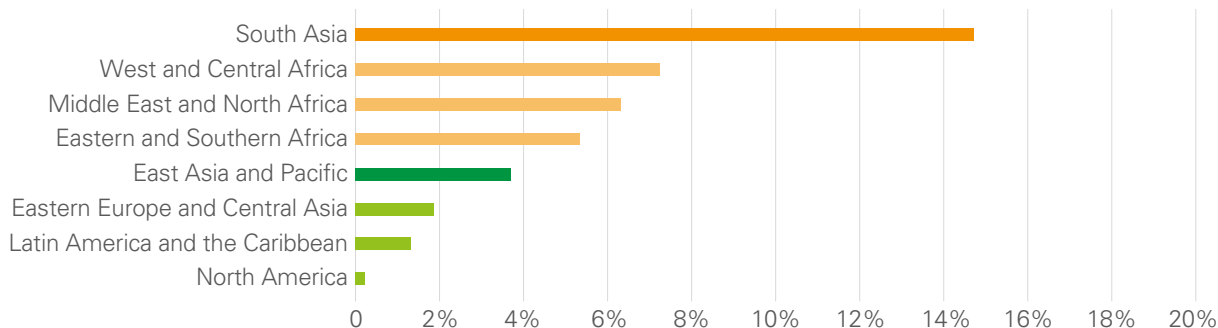


## Causes of Child Mortality

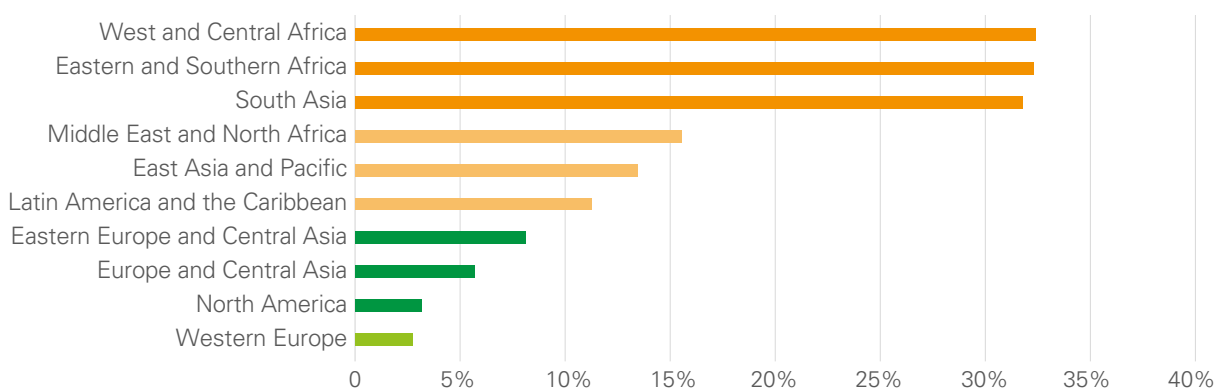
Nearly half of all deaths in children under 5 are attributable to undernutrition. Children who are moderately or severely wasted have an increased risk of death and 7.2% of the region's children were affected by wasting (Figure 15)<sup>8,9</sup>. Children with stunting can suffer

irreversible physical and cognitive damage which could last a lifetime and even affect the next generation. 32.5% of children in the WCAR were affected by stunting in 2020 (Figure 16)<sup>8,9</sup>.

*Figure 15. Percentage of children under 5 affected by wasting, by region, 2020*

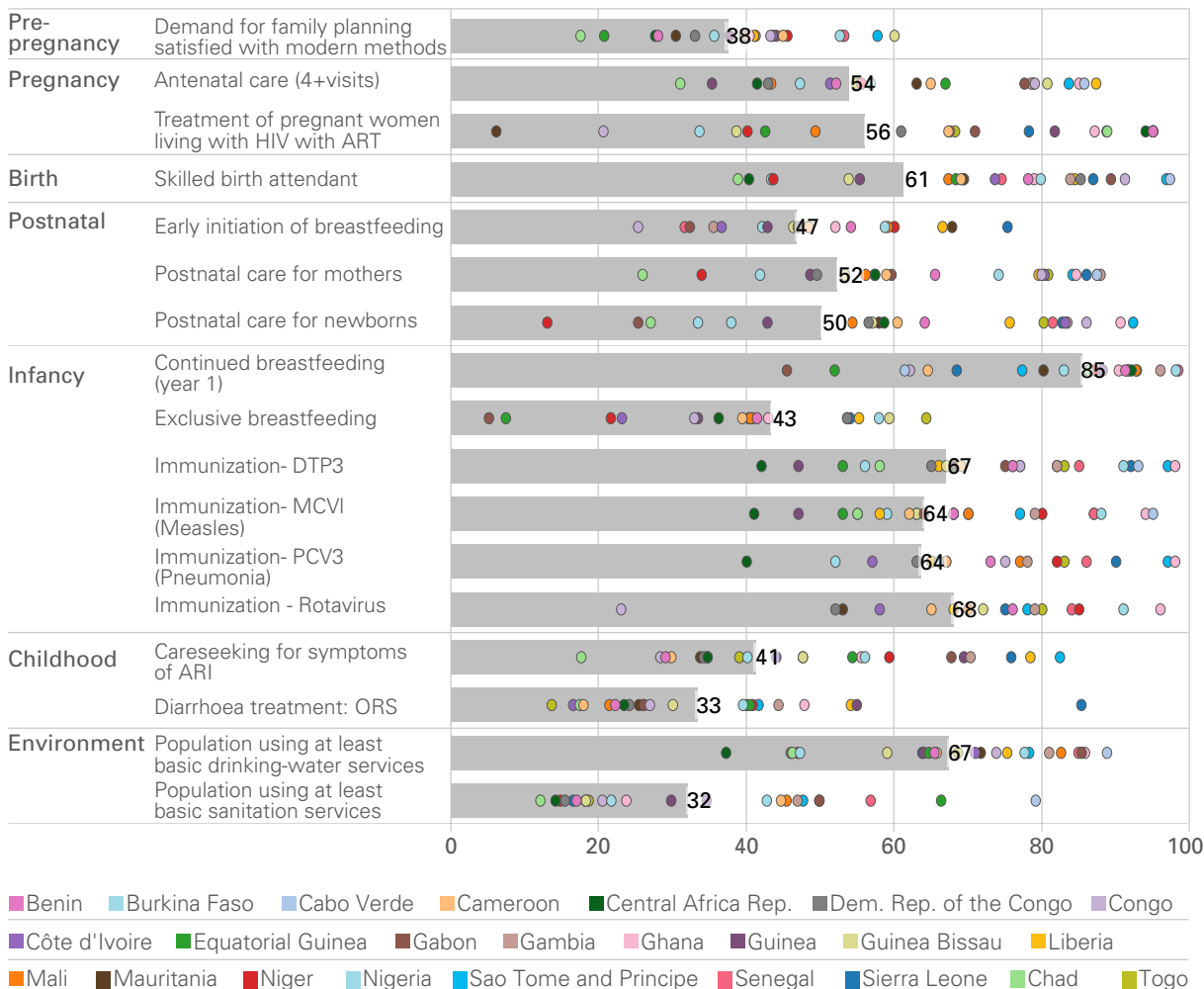


*Figure 16. Percentage of children under 5 affected by stunting, by region, 2020*



## Essential health and nutrition services for children

Figure 17. Continuum of Care: Coverage in WCAR, 2022



Source: UNICEF Global Databases 2022. Note.: Bars show weighted regional averages and bubbles show country-level data.

## Essential health and nutrition services for children

Effective coverage of essential health and nutrition services along the continuum of care with equitable access and sufficient quality help children survive and thrive<sup>10,11</sup>. Among 15 health and nutrition services listed along the

continuum of care, 9 services show less than 60% coverage with a substantial disparity among the countries shown in the treatment of pregnant women living with HIV and postnatal care for newborns (Figure 17)<sup>12</sup>.

Figure 18. Continuum of Care: Equity in WCAR (Postnatal care for newborns), 2022

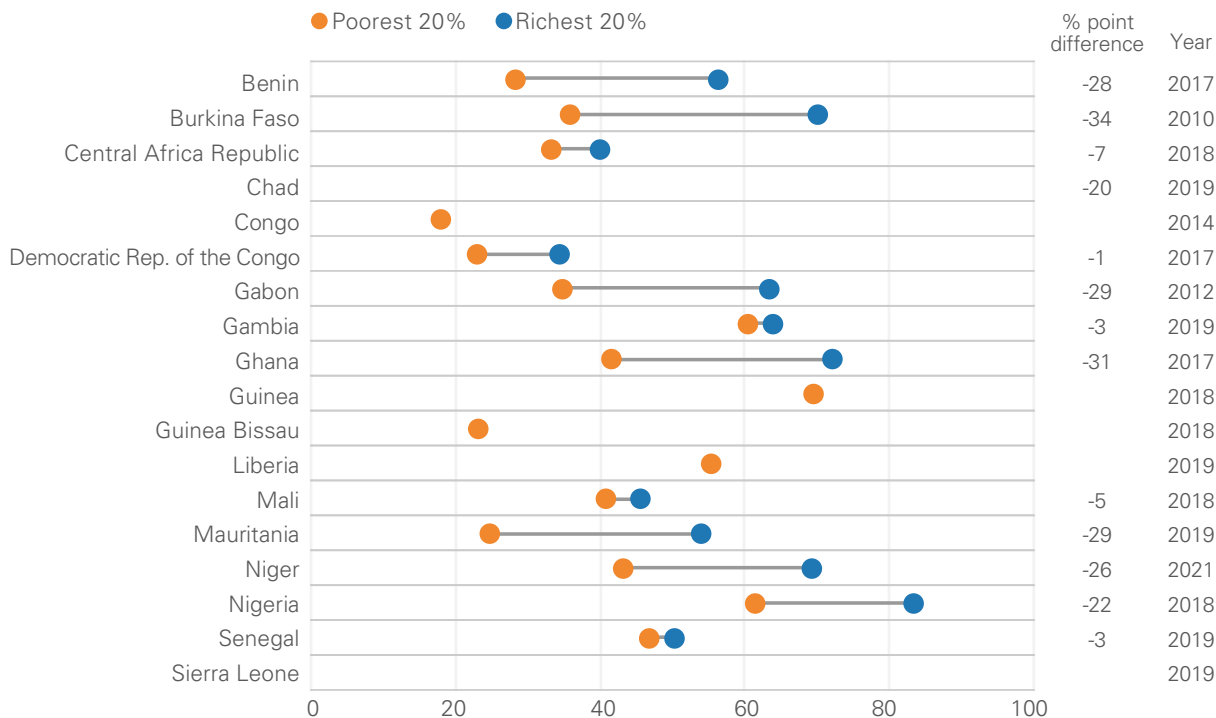


Source: Re-analysis of DHS and MICS survey microdata carried out by the International Center for Health Equity at the Federal University of Pelotas, Brazil, 2022.

9 health and nutrition services show less than 60% of coverage with a substantial disparity among the countries.

A substantial disparity is shown between the poorest and the richest for coverage of postnatal care for newborns and care seeking for pneumonia.

Figure 19. Continuum of Care: Equity in WCAR (Care seeking for pneumonia), 2022



Source: Re-analysis of DHS and MICS survey microdata carried out by the International Center for Health Equity at the Federal University of Pelotas, Brazil, 2022. Note: missing % point difference is due to no data for one of the levels (poorest 20%/richest 20%).

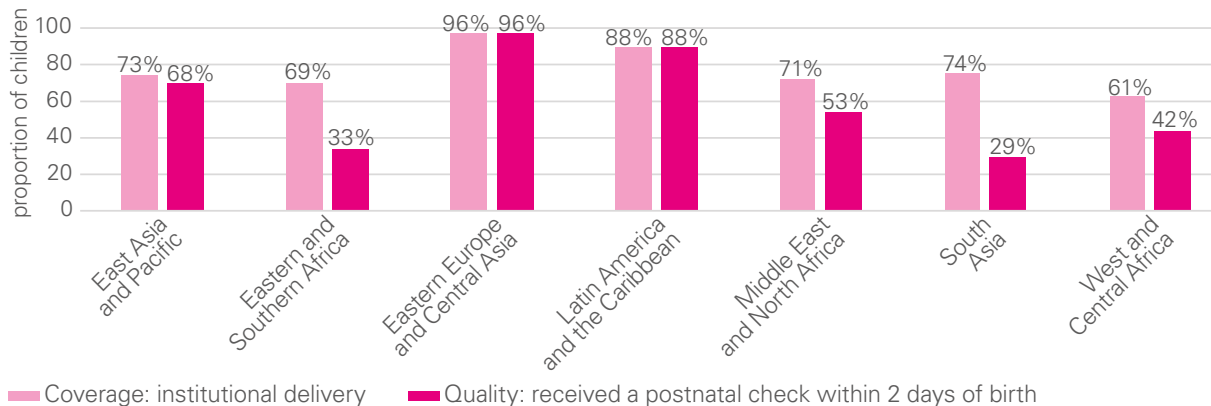
In terms of equitable access, a substantive disparity exists between the poorest and richest in the countries in the region (Figures 18 and 19)<sup>12</sup>.

The health system does not consistently deliver essential health and nutrition services along the continuum of care to ensure

quality<sup>11</sup>. In WCAR, 61% of children were born in health facilities, but only 42% of newborn infants received postnatal care (Figure 20)<sup>11</sup>. Only 32% of children received antibiotics for suspected pneumonia while 39% of children sought care (Figure 21)<sup>11</sup>.

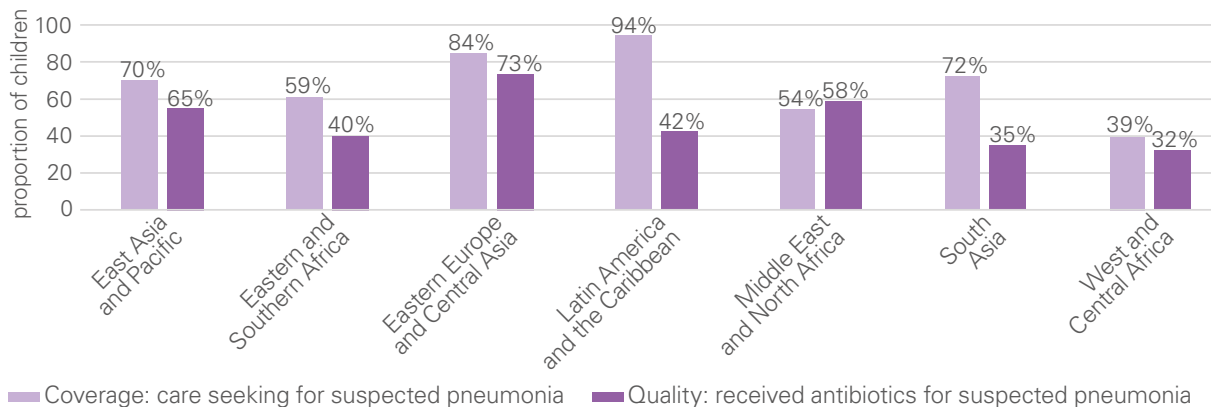
## Essential health and nutrition services for children

Figure 20. Institutional delivery and postnatal care, by regions



61% of children were born in health facilities, but only 42% of children received postnatal care.

Figure 21. Care seeking and received for suspected pneumonia, by regions



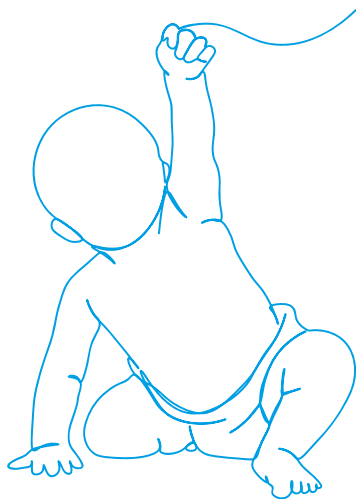
39% of children sought care and 32% of children received antibiotics for suspected pneumonia.

## Conclusion

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Almost 1.9 million children die before turning five years old in WCAR in 2021, which accounts for nearly 40% of global deaths. Despite the progress made by the countries to reduce child mortality and increase the coverage of essential health and nutrition services, a significant number of countries will not achieve the SDG target for U5MR and NMR if the current trends continue. However, if the countries are to get on track to achieve the child mortality SDGs targets, 6.9 million children under 5 can be saved in the region by 2030.

If the world is to address the large burden of child deaths, action and attention should target the most vulnerable regions and countries. It is critical to invest in and strengthen health systems to ensure equitable access and coverage of high-quality and high-impact maternal, newborn, and child health and nutrition interventions especially through resilient primary health care and community health system. In the WCAR, where children's health and well-being are threatened by conflicts and humanitarian emergencies on top of climate change, these crises present an opportunity to build political commitment to the health and well-being of the children<sup>13</sup>.



## Footer notes

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1. [World Population Prospects - Population Division - United Nations](#) (accessed on 2023/06)

2. [Classification of Fragile and Conflict-Affected Situations \(worldbank.org\)](#) (accessed on 2023/06) - Countries affected by violent conflict: Burkina Faso, Cameroon, Central Africa Republic, Congo, Democratic Republic of, Mali, Niger, Nigeria - Countries with high levels of institutional and social fragility: Chad, Congo, Republic of, Guinea-Bissau

3. United Nations Inter-agency Group for Child Mortality Estimation (UN IGME), Levels & Trends in Child Mortality: Report 2022, Estimates developed by the United Nations Inter-agency Group for Child Mortality Estimation, United Nations Children's Fund, New York, 2023 [CME Info - Child Mortality Estimates](#) (accessed on 2023/06)

4. [Inter-agency child and maternal mortality estimates I. Population Division \(un.org\)](#) (accessed on 2023/06)

5. Regional classifications refer to UNICEF's regional classification. For further details please refer to <http://data.unicef.org/regionalclassifications>

6. [Adolescent health dashboard regional profiles - UNICEF DATA](#) (accessed on 2023/06)

7. Perin J, Mulick A, Yeung D, Villavicencio F, Lopez G, Strong KL, Prieto-Merino D, Cousens S, Black RE, Liu L. Global, regional, and national causes of under-5 mortality in 2000-19: an updated systematic analysis with implications for the Sustainable Development Goals (Causes mondiales, régionales et nationales de la mortalité des moins de cinq ans sur la période 2000-2019 : Analyse systématique mise à jour et implications pour les objectifs de développement durable). Lancet Child Adolesc Health. 2022 Feb;6(2):106-115. doi: 10.1016/S2352-4642(21)00311-4. Epub 2021 Nov 17. Erratum in: Lancet Child Adolesc Health. 2022 Jan;6(1):e4. PMID: 34800370; PMCID: PMC8786667

8. [UNICEF, WHO, World Bank \(2021\) Joint Child Malnutrition Estimates - 2021 - UNICEF DATA](#) (accessed on 2023/06)

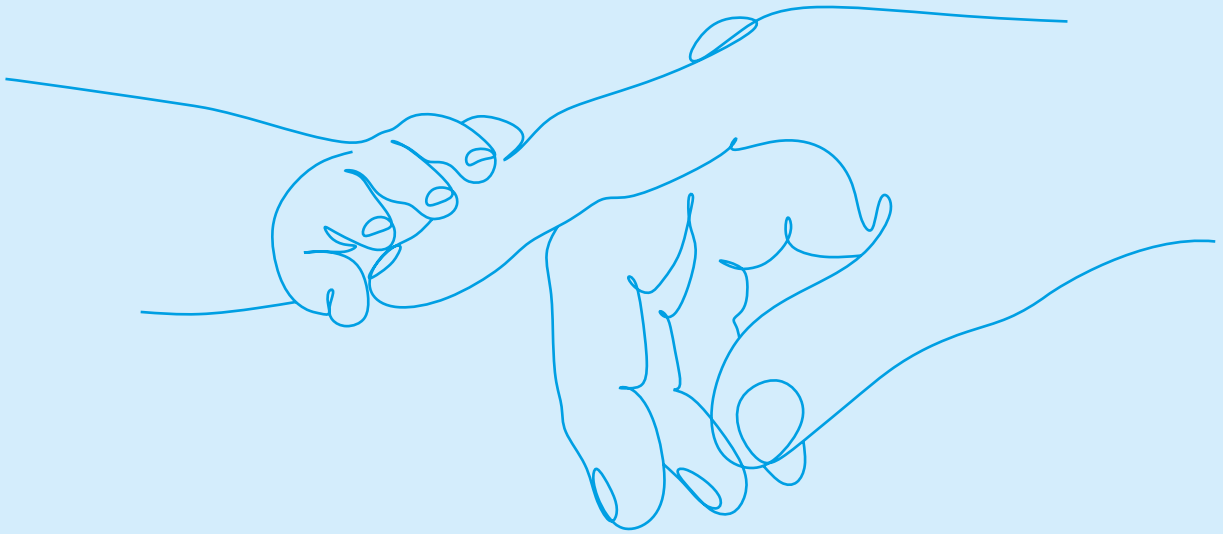
9. [Malnutrition in Children - UNICEF DATA](#) (accessed on 2023/06)

10. [What can work and how? An Overview of evidence-based interventions and delivery strategies to support health and human development from before conception to 20 years - The Lancet](#), 2022

11. [Improving health and social systems for all children in LMICs: structural innovations to deliver high-quality services - The Lancet](#), 2022

12. [West and Central Africa - Page 1 - Countdown to 2030 \(unicef.org\)](#) (accessed on 2023/06)

13. [Opportunities in crisis for optimising child health and development - The Lancet](#), 2022



In 2021, in WCAR,

Almost 1.9 million children under five were not able to reach their fifth birthday.

Over 650,000 babies lost their lives during the first month of life.

More than 60% of under-five deaths were among children aged 1-59 months.

Most of the deaths were due to preventable or treatable causes.

With the current pace of mortality decline, most countries in the region will not achieve SDGs target for child survival.

The coverage of health and nutrition services is not optimal with a substantial disparity in equity and insufficient quality.

It is critical to ensure equitable access and coverage of:

- high-quality care around the time of birth and
- high-impact maternal, newborn, and child health and nutrition interventions especially at the primary and community level to end preventable deaths.

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