



Biggest killer,¹ yet forgotten

Pneumonia is the world's leading infectious killer of children, claiming the lives of more than 800,000 children under the age of five every year, more than 2,000 every day.

It is a shocking demonstration of pervasive health inequities disproportionately affecting the most deprived and marginalised children in low- and middle income countries. It represents a violation of children's right to survival and development, as enshrined in the UN Convention on the Rights of the Child. Yet pneumonia has been largely forgotten on global and national health agendas. We can and must change this.

It is possible to combat pneumonia

It is possible to deliver the necessary solutions to combat pneumonia to all children. It is possible through Universal Health Coverage (UHC) and equitable access to quality primary health care to prevent, diagnose and treat pneumonia. It is possible through better immunisation coverage to protect children from some of the leading causes of pneumonia. It is possible through good nutrition to help their bodies to fight off infections and respond to treatment, as well as to prevent underlying causes of pneumonia. It is possible through improved water, hygiene & sanitation, and reductions in air pollution to help address risk factors that can cause pneumonia. It is possible through ensuring access to integrated service delivery and life-saving low cost antibiotics at the community level and strengthening the availability and quality of referral level care, to combat pneumonia and save lives.

Poverty and inequality aid and abet pneumonia deaths

Progress to address the number of children dying from pneumonia isn't fast enough or fair enough. Global/regional/national averages mask huge inequalities in countries. It is the poorest children who are most at risk because of high rates of malnutrition, and lack of access to basic quality health services for vaccinations, and diagnosis & treatment of common childhood illnesses. As a result, the poorest children are almost twice as likely to die before their 5th birthday compared to the richest. Innovations that could save hundreds of thousands of lives each year are not reaching children with the greatest need.

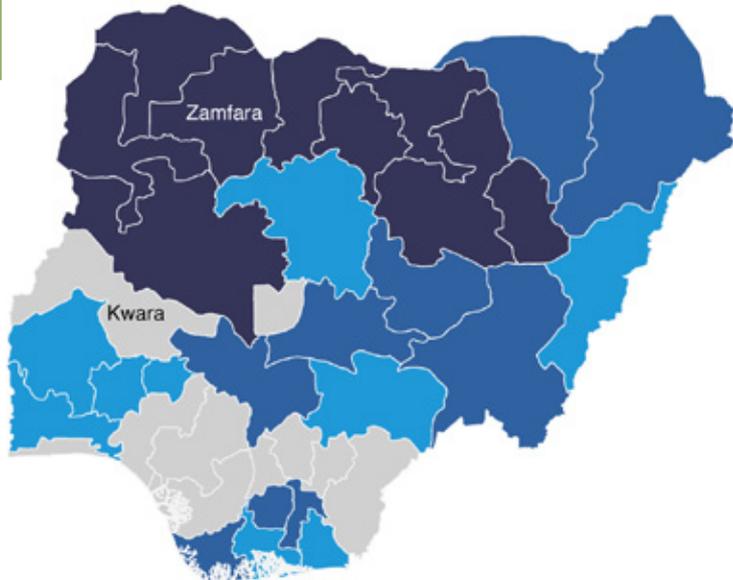
2020 is the year to act

There are clear actions that governments and the global community can and must take to improve child survival. The progress made so far is not enough, and comprehensively addressing pneumonia is key for child survival. With the impetus provided by the recently concluded UN High-Level Meeting on UHC in September 2019, The Global Forum on Childhood Pneumonia in January 2020, the Gavi Replenishment Conference in June 2020 and the Tokyo Nutrition for Growth Summit in December 2020 should all be used as key moments for governments to make strong commitments to accelerate progress on combatting pneumonia.

With just ten years left to deliver on the Sustainable Development Goals (SDGs) – and only five for the Integrated Global Action Plan for the Prevention and Control of Pneumonia and Diarrhoea (GAPPD) targets – now is the time to act. We need concerted action to improve policies, investment, innovations, and scale up evidence-based interventions, if we are to leave no child behind and to save lives. Not only is combatting pneumonia possible, it is a must – a must for every child to be able to fulfil their right to survive and thrive.

Nigeria spotlight

Regional inequalities in child mortality in Nigeria



Under-five mortality (per 1,000 live births) 16 – 68 68 – 85 85 – 119 119 – 210

Data: MICS 2016–2017

UNDER-FIVE MORTALITY²

GLOBAL TARGET

At least as low as

25 per 1000 live births is the SDG target rate for under five mortality by 2030.

HIGHEST RISK FACTORS FOR CHILD PNEUMONIA DEATHS IN NIGERIA, 2017³

51%

caused by child wasting

26%

caused by indoor air pollution from solid fuels

20%

caused by outdoor air pollution

NIGERIA STATUS

132 per 1000 live births, under-five mortality rate in 2018.

Inequality, poverty and lack of access to health services contributes to

158 deaths per 1000 live births among the poorest households and

56 deaths per 1000 live births amongst the richest households in 2017.

In Zamfara where the mortality rate is

210 per 1000 live births, children are **5 times** more likely to die before the age of five than children in Kwara State where the mortality rate is

45 per 1000 live births in 2017.

PNEUMONIA RELATED UNDER-FIVE MORTALITY⁴

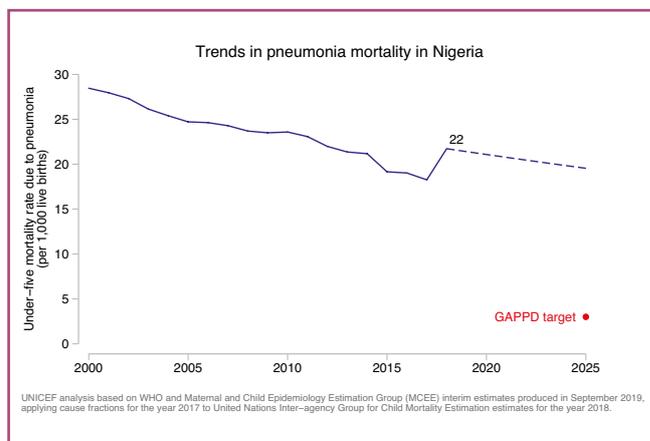
GLOBAL TARGET

3 per 1000 live births is the target pneumonia mortality rate for under-fives by 2025, as envisaged under the Global Action Plan for Pneumonia and Diarrhoea (GAPPD).

NIGERIA STATUS

22 per 1000 live births, under five mortality rate due to pneumonia in 2018.

19% of child deaths were due to pneumonia in 2018, and it was **the biggest killer** of children under-five in 2017.



Pneumonia killed more than **162,000** children under-five in 2018 – more than **18** children every hour.

2% is the average annual rate of reduction in pneumonia mortality between 2000–2018, and at the same rate, Nigeria is expected to reach the **2025 GAPPD target later than 2050.**

Health system strengthening to deliver strong primary health care and UHC to combat pneumonia⁵

The UHC Service Coverage Index is a measure of SDG indicator 3.8.1, which is a composite of essential health services. Countries should strive towards achieving 100% coverage to ensure health care for all citizens. To progress towards UHC, coverage of quality essential health services needs to be expanded with an emphasis on reducing inequities and strengthening health care facilities, to improve the quality of primary health care services. In Nigeria, the coverage of essential health services was just **42%** in 2017. In addition, the proportion of children with pneumonia symptoms who are taken for healthcare is the indicator for 'child treatment' under the UHC Service Coverage Index. In Nigeria it was **73%** in 2018, but this includes pharmacies which do not necessarily provide clinical services.

To build strong health systems, increase coverage and deliver UHC, Nigeria needs to increase domestic public health expenditure towards a target of 5% of GDP, prioritising spending at the primary health care level. It would be ideal for Nigeria to raise revenue for health systems in an equitable way through progressive taxation and remove out-of-pocket payments to accessing health and nutrition services, such as user fees, at least for vulnerable populations and priority services. The more Nigeria continues to rely heavily on out-of-pocket payments, the harder it will be to achieve UHC.

Strong and equitable health systems are needed to adequately prevent, diagnose and treat pneumonia, and provide children with their basic human right to good-quality healthcare. UHC – where all children and their family have access to health and nutrition services, vaccinations and the medicines they need, without facing financial hardship – represents that right in action.



GLOBAL TARGETS ON HEALTH FINANCING

\$86 is the minimum recommended government spend/person/year to provide essential health services as per WHO recommendations.

5% is the minimum recommended government spend on health as % of GDP as per WHO recommendations.

57% of government health expenditure should be on primary-level healthcare services as per WHO recommendations, as 90% of all health needs can be met at the primary health care level.

The SDG targets for large out of pocket (OOP) expenditure should not be more than

10% and to avert catastrophic OOP expenditure it should not be more than

25% of total household expenditure or income.

NIGERIA STATUS⁶

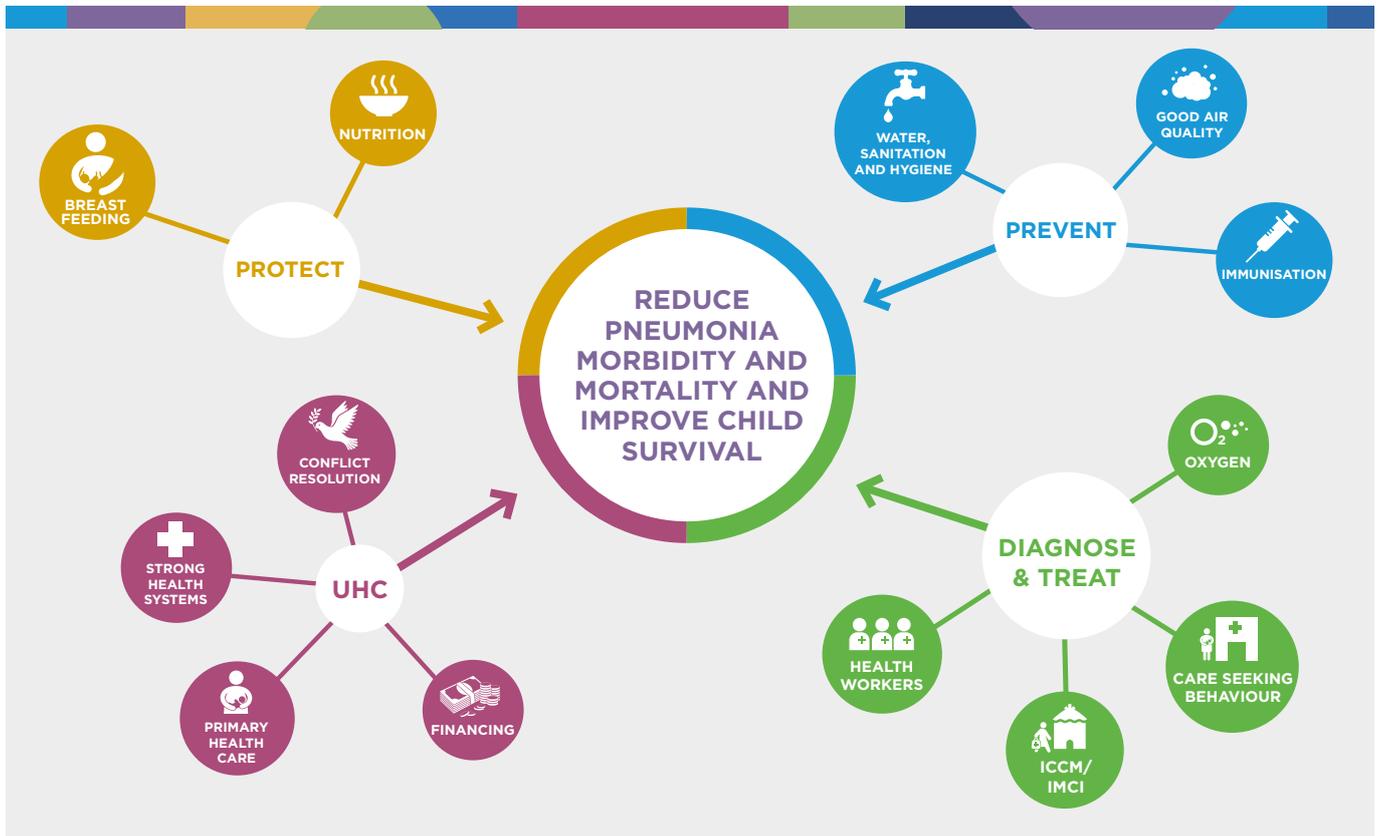
\$10 spent by the government on health per person in 2016.

5% of the government's budget spent on health in 2016.

0.5% of GDP spent on health by the government in 2016.

..% of the government's budget spent on primary health care *Data not available*

75% of total health expenditure was out-of-pocket in 2016.



PROTECT children by establishing good health practices from birth

Global Targets & Standards

SDG 2.2: By 2030, end all forms of malnutrition, including achieving by 2025, the internationally agreed targets on stunting and wasting in children under-five.

2 ZERO HUNGER

40% reduction in stunting (height for age) in under-five children and reduce and maintain childhood wasting (weight for age) to less than **5%** as per the 2025 targets set in the 2012 World Health Assembly Resolution.



Nutrition⁸

Nigeria Status

Wasting

7% is the wasting rate for under-five children in 2018.

Sub-national Status⁷

Wasting

8% is the wasting rate for under-five children in rural households in 2018.

5% is the wasting rate for under-five children in urban households in 2018.

Stunting

37% is the stunting rate in 2018.

Stunting

46% is the stunting rate among under-five children in rural households in 2018.

27% is the stunting rate among under-five children in urban households in 2018.

To remain on track to achieve SDG 2 in 2030, Nigeria needs to reduce stunting rates to **21%** by 2025.

The stunting rate among children in rural households is more than **1 ½ times** higher than among children in urban households.

Global Targets & Standards

50% rate of exclusive breastfeeding for the first 6 months as per the 2025 targets set in the 2012 World Health Assembly Resolution.



Breast feeding⁹

Nigeria Status

29% is the exclusive breastfeeding rate in 2017.

Sub-national Status

16% is the exclusive breastfeeding rate among babies in the poorest households in 2017.

35% is the exclusive breastfeeding rate among babies in the richest households in 2017.

PREVENT pneumonia in children by addressing underlying causes

Global Targets & Standards

SDG 3.2: End preventable deaths of newborns and children under 5 years of age, with all countries aiming to reduce under-5 mortality to at least as low as **25** per 1,000 live births by 2030.

90% national and at least **80%** district or equivalent administrative unit coverage for vaccination by 2020 as per the Global Vaccine Action Plan (GVAP)

DTP3 (Diphtheria-tetanus-pertussis), **Hib3** (Haemophilus influenzae type B) and **PCV3** (Pneumococcal Conjugate) vaccines included in the national immunisation programme.

3 GOOD HEALTH AND WELL-BEING



Immunisation¹⁰

Nigeria Status

57% DTP3 vaccine coverage among 1-year-olds in 2018.

57% Hib3 vaccine coverage among 1-year-olds in 2018.

57% PCV3 coverage among 1-year-olds in 2018.

Sub-national Status

Pentavalent vaccine (Penta3) coverage among 1-year-olds in 2018 **90%** or more in States such as Lagos and Ekiti while it is as low as **7%** in Sokoto and **11%** in Zamfara.

PCV3 coverage among 1-year-olds in 2018 **90%** or more in States such as Lagos and Ekiti while it is as low as **6%** in Sokoto and **9%** in Zamfara.

Global Targets & Standards

SDG 6.1: Achieve universal and equitable access to safe and affordable drinking water for all by 2030.

SDG 6.2: Achieve access to adequate and equitable sanitation and hygiene for all and end open defecation, paying special attention to the needs of women, girls and those in vulnerable situations by 2030.

6 CLEAN WATER AND SANITATION



Water, sanitation and hygiene¹¹

Nigeria Status

4% People using safely managed drinking water services in 2017.

42% People using at least basic sanitation services in 2018.

21% People with basic hand washing facilities at home in 2018.

24% People practicing open defecation in 2018.

Sub-national Status

3% rural & **5%** urban people using safely managed drinking water services in 2017.

38% rural & **50%** urban people using at least basic sanitation services in 2018.

18% rural & **27%** urban people with basic hand washing facilities at home in 2018.

30% rural & **11%** urban people practicing open defecation in 2018.

Global Targets & Standards

SDG 7: 100% access to affordable, reliable, sustainable and modern energy for all by 2030.

SDG 3.9: Substantially reduce the number of deaths and illnesses from hazardous chemicals; air, water and soil pollution and contamination by 2030.

10 Micro grams per cubic metre of air ($\mu\text{g}/\text{m}^3$) should be the mean annual exposure to Fine Particulate Matter ($\text{PM}_{2.5}$) as per WHO Air Quality Guidelines.

7 AFFORDABLE AND CLEAN ENERGY



3 GOOD HEALTH AND WELL-BEING



Air Pollution¹²

Nigeria Status

7% people with primary reliance on clean fuels and technologies in 2017.

72 micro grams per cubic metre of air ($\mu\text{g}/\text{m}^3$) is the mean annual exposure to $\text{PM}_{2.5}$ pollution in urban settings in 2017.

Sub-national Status

Data not available

Data not available

DIAGNOSE & TREAT children who become ill with pneumonia

Global Targets & Standards

SDG 3.12: Substantially increase health financing and the recruitment, development, training and retention of the health workforce in developing countries, especially in least developed countries and small island developing States.

3 GOOD HEALTH AND WELL-BEING



44.5 per 10,000 people is the minimum number of skilled health workers required to deliver quality health services as per WHO recommendations. The estimated shortage of health workers is 18 million by 2030.

Health workers¹³

Nigeria Status

4 doctors per 10,000 people & **15** nurses and midwives per 10,000 people in 2013.

YES – Nigeria has a National Task-Shifting Policy.

YES – There is a National Guideline for Community health workers to dispense antibiotics.

Sub-national Status

Data not available

YES & NO – Many States have not adopted the task-shifting Policy, although Lagos, Kaduna and Gombe are a few that have done so.

YES – Community health workers have been mandated to dispense Amoxicillin Dispersible Tablets (DT) 250 mg.

Global Targets & Standards

ICCM (Universal Integrated Community Case Management) to prioritise the most deprived and marginalised, removing financial and non-financial barriers to access.



ICCM¹⁴

Nigeria Status

YES – Nigeria has National IMCI and ICCM Guidelines.

YES – Amoxicillin DT 250 mg is on the essential medicines list.

Sub-national Status

YES – All 37 States follow the IMCI and ICCM Guidelines.

YES – All 37 States have ensured that training curriculums for community health workers (CHWs) include how to dispense Amoxicillin DT 250 mg.

Global Targets & Standards

Oxygen levels in children should be monitored by trained CHWs (community health workers) who can refer them in time to primary and secondary health facilities which have oxygen supply.



Oxygen¹⁵

Nigeria Status

YES & NO – As per the 'National Strategy for the Scale-up of Medical Oxygen in Health Facilities 2017-2022', CHWs are mandated to use pulse oximeters, but this has not been rolled out yet.

YES – LGA level primary health care centres should have medical oxygen as per the 'National Strategy for the Scale-up of Medical Oxygen in Health Facilities 2017-2022'.

Sub-national Status

NO – None of the 37 States are yet to mandate CHWs to use pulse oximeters.

YES – In all 37 States LGA level primary health care centres should have medical oxygen, but many do not due to supply issues.

Of the secondary and tertiary health facilities in 8 States which were assessed in 2016, only 55% provided functional medical oxygen therapy and 11% provided pulse oximeters. In PHCs, availability of medical oxygen and pulse oximetry was even lower.

Global Targets & Standards

90% pneumonia care seeking behaviour by 2030 as per Every Breath Counts' call to governments to set an official national target. All children with pneumonia should be taken to, or referred to, a health facility at the earliest, either by a parent or community health worker.



Care seeking behaviour¹⁶

Nigeria Status

Only **24%** children with pneumonia symptoms were taken to a health facility in 2017.

Sub-national Status

23% of children under-five with pneumonia symptoms, from the poorest households, were taken to a health facility in 2017.

28% of children under-five with pneumonia symptoms, from the richest households, were taken to a health facility in 2017.

Fighting for Breath: The Global Forum on Childhood Pneumonia, January 2020

Pneumonia is the world's deadliest infectious killer of children and the ultimate disease of poverty.

Each year 800,000 of the world's poorest and most vulnerable children die from the disease – more than 2000 every day. The overwhelming majority of these deaths are preventable. Yet fatalities are declining slowly – far too slowly for the world to deliver on the Sustainable Development Goal pledge to 'end preventable child deaths by 2030'. Changing this picture will require more than a reaffirmation of the SDG promise. The children whose lives are at stake need a bold agenda backed by urgent action.

On 29-31 January 2020 in Barcelona, Spain, over 300 participants – including ministers and senior planners from high-burden countries, major development donors, UN and multilateral agencies, non-government organisations, corporate and philanthropic leaders and the pneumonia research community – will come together to as part of an effort to build that agenda and galvanise national and international action.

stoppneumonia.org/latest/global-forum/

A Global Call to Action on Childhood Pneumonia

- 1. Develop pneumonia control strategies** as part of wider plans for universal health coverage and commit to reducing child pneumonia deaths to fewer than three per 1,000 live births, the target set by the Integrated Global Action Plan Pneumonia and Diarrhoea (GAPPD).
- 2. Strengthen quality primary health care and action on pneumonia** as part of national multi-sectoral plans and through integrated strategies (including nutrition, water, sanitation and hygiene, and air pollution), including at community level, focusing on the most deprived and marginalised children.
- 3. Increase domestic government investment in health and nutrition** (to at least 5% of GDP on health) and ensure that increased spending improves access to child health and nutrition services, including by removing user fees, addressing non-financial barriers to accessing care, and prioritising primary health services.
- 4. Improve health governance** by ensuring accountability, transparency and inclusiveness in planning, budgeting and expenditure monitoring, including for pneumonia control strategies.
- 5. Accelerate vaccination coverage** by supporting Gavi's 2020 replenishment and ensuring the investment drives more equitable vaccination coverage and improves vaccine affordability.
- 6. Enhance overseas development assistance** by increasing allocations to child health services and advancing the achievement of universal health coverage (aligned with national priorities and plans), including through pledges as part of Gavi replenishment and Nutrition for Growth.
- 7. Engage the private sector to improve access** to affordable, quality vaccines, diagnostic tools, new antibiotics, medicines and medical oxygen, especially for the most deprived and marginalised children.
- 8. Measure and report progress in achieving universal health coverage** to build stronger health systems which deliver quality primary health care and reduce child deaths, including from pneumonia, as well as against SDG child survival and GAPPD targets.
- 9. Prioritise research, development and innovation** to improve access to the most affordable and cost-effective pneumonia prevention, diagnosis, referral and treatment technologies and services.
- 10. Champion multi-sectoral partnerships** between the child health and nutrition communities and the broader infection control, clean air, water, sanitation and hygiene, and development financing communities.

The partnership to combat pneumonia

Save the Children, UNICEF and Every Breath Counts Coalition are working in partnership to fight one of the greatest – and gravest – health challenges facing children around the world – childhood pneumonia. The partnership will galvanise support to put pneumonia on the global health agenda; stimulate national action; and mobilise the donor community to ensure that we achieve the SDG goal on child survival and the Global Action Plan for Pneumonia and Diarrhoea (GAPPD) target of three child pneumonia deaths per 1,000 live births by 2030.

References:

1. **Biggest killer:** UNICEF analysis based on WHO and Maternal and Child Epidemiology Estimation Group interim estimates produced in September 2019, applying cause fractions for the year 2017 to United Nations Inter-Agency Group for Child Mortality Estimation estimates for the year 2018; Convention on the Rights of the Child
2. **Under-Five Mortality:** United Nations Inter-Agency Group for Child Mortality Estimation (IGME) (2019); Save the Children's Child Inequality Tracker; MICS 2016 -2017; Mortality rates are calculated for the 10-year-period preceding the DHS survey; Nigeria Demographic and Health Survey 2018
3. **Risk Factors for Pneumonia:** The Institute for Health Metrics and Evaluation (IHME) - Global Burden of Disease
4. **Pneumonia Related Under-Five Mortality:** UNICEF analysis based on WHO Maternal and Child Epidemiology Estimation Group (MCEE) interim estimates produced in September 2019, applying cause fractions for the year 2017 to United Nations Inter-agency Group for Child Mortality Estimation estimates for the year 2018; WHO Global Health Observatory – Causes of Child Death 2017
5. **Health Systems Strengthening:** WHO/World Bank UHC Coverage Index; Nigeria Demographic and Health Survey 2018
6. **Health Financing:** WHO Global Health Expenditure database
7. **Sub-national Status:** GRID, Save the Children's Child Inequality Tracker; Poorest (richest) refers to poorest (richest) 20% of households as defined by most recent household survey.
8. **Nutrition:** Nigeria Demographic and Health Survey 2018; 2025 target calculated based on WHO methodology
9. **Breastfeeding:** Multiple Indicator Cluster Surveys (MICS) 2017, UNICEF
10. **Immunisation:** WHO/UNICEF estimates of national immunization coverage (WUENIC); Nigeria Demographic and Health Survey 2018; GRID, Save the Children's Child Inequality Tracker
11. **WASH:** Multiple Indicator Cluster Surveys (MICS) 2017; National Outcome Routine Mapping, Nigeria 2018
12. **Air Pollution:** WHO Global Health Observatory - SDG7.1; World Development Indicators (based on Brauer, M. et al. 2017), World Bank
13. **Health Workers:** WHO Global Health Observatory – Global Health Workforce Statistics; Task Shifting and Task Sharing Policy for Essential Health care services in Nigeria 2014; National Guidelines on IMCI and ICCM
14. **ICCM:** WHO Essential Medicines and Health Products Information Portal; National Guidelines on IMCI and ICCM; National Community Health Workers (CHWs) Training Curriculum
15. **Oxygen:** National Strategy for the Scale-up of Medical Oxygen in Health Facilities 2017-2022
16. **Care Seeking Behaviour:** Multiple Indicator Cluster Surveys (MICS) 2017

Photo credit: Save the Children

A mother and child, photographed during a visit to the Dusuman Health Clinic, Outpatient Therapeutic Unit, near Maiduguri, Nigeria.

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