

## Biggest killer,<sup>1</sup> 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.

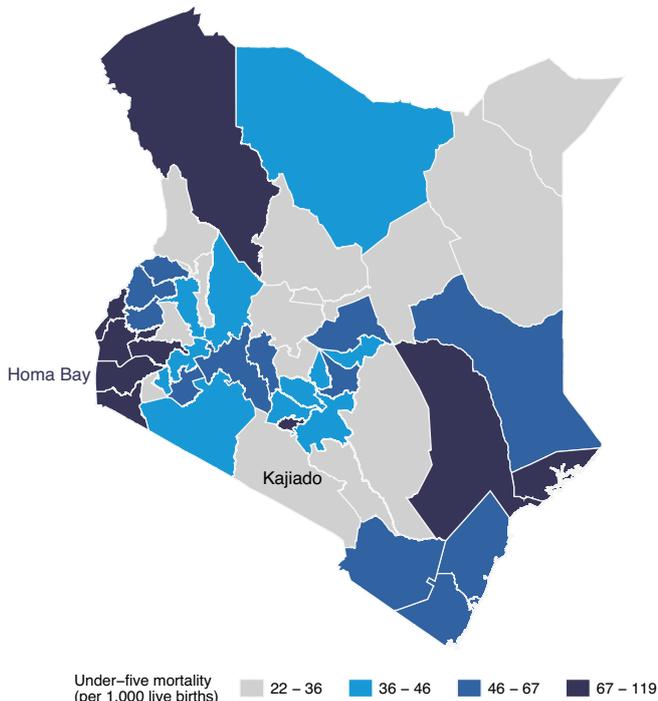
## 2020 is the year to act

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.

# Kenya spotlight

Regional inequalities in child mortality in Kenya



## UNDER-FIVE MORTALITY<sup>2</sup>

### GLOBAL TARGET

At least as low as

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

### KENYA STATUS

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

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

**57** deaths per 1000 live births among the poorest households compared with

**47** deaths per 1000 live births amongst the richest households in 2014.

In Homa Bay where the mortality rate is

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

**22** per 1000 live births in 2015.

## HIGHEST RISK FACTORS FOR CHILD PNEUMONIA DEATHS IN KENYA, 2017<sup>3</sup>

**41%**

caused by child wasting

**35%**

caused by indoor air pollution from solid fuels

**16%**

caused by prematurity

## PNEUMONIA RELATED UNDER-FIVE MORTALITY<sup>4</sup>

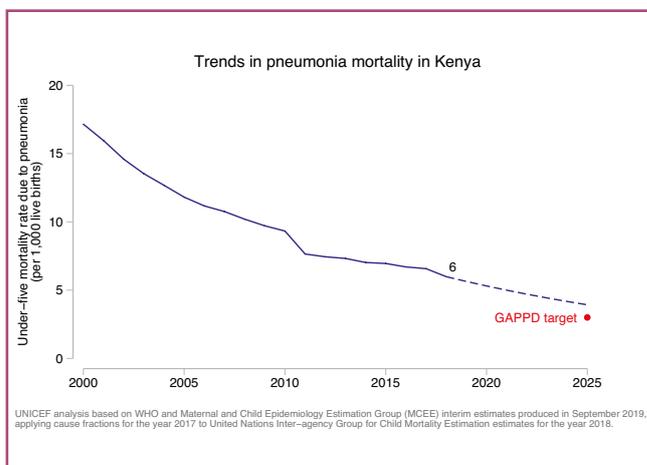
### GLOBAL TARGET

**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).

### KENYA STATUS

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

**15%** of child deaths were due to pneumonia in 2018, and it was the **second biggest killer** of children under-five in 2017.



Pneumonia killed almost **9,000** children under-five in 2018 – more than **1** child every hour.

**6%** is the average annual rate of reduction in pneumonia mortality between 2000–2018, and at the same rate, Kenya is expected to reach the **2025 GAPPD target in 2029**.

## Health system strengthening to deliver strong primary health care and UHC to combat pneumonia<sup>5</sup>

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 Kenya, the coverage of essential health services was just **54%** 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 Kenya it was **66%** in 2014.

To build strong health systems, increase coverage and deliver UHC, Kenya 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 Kenya 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 Kenya 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.

### KENYA STATUS<sup>6</sup>

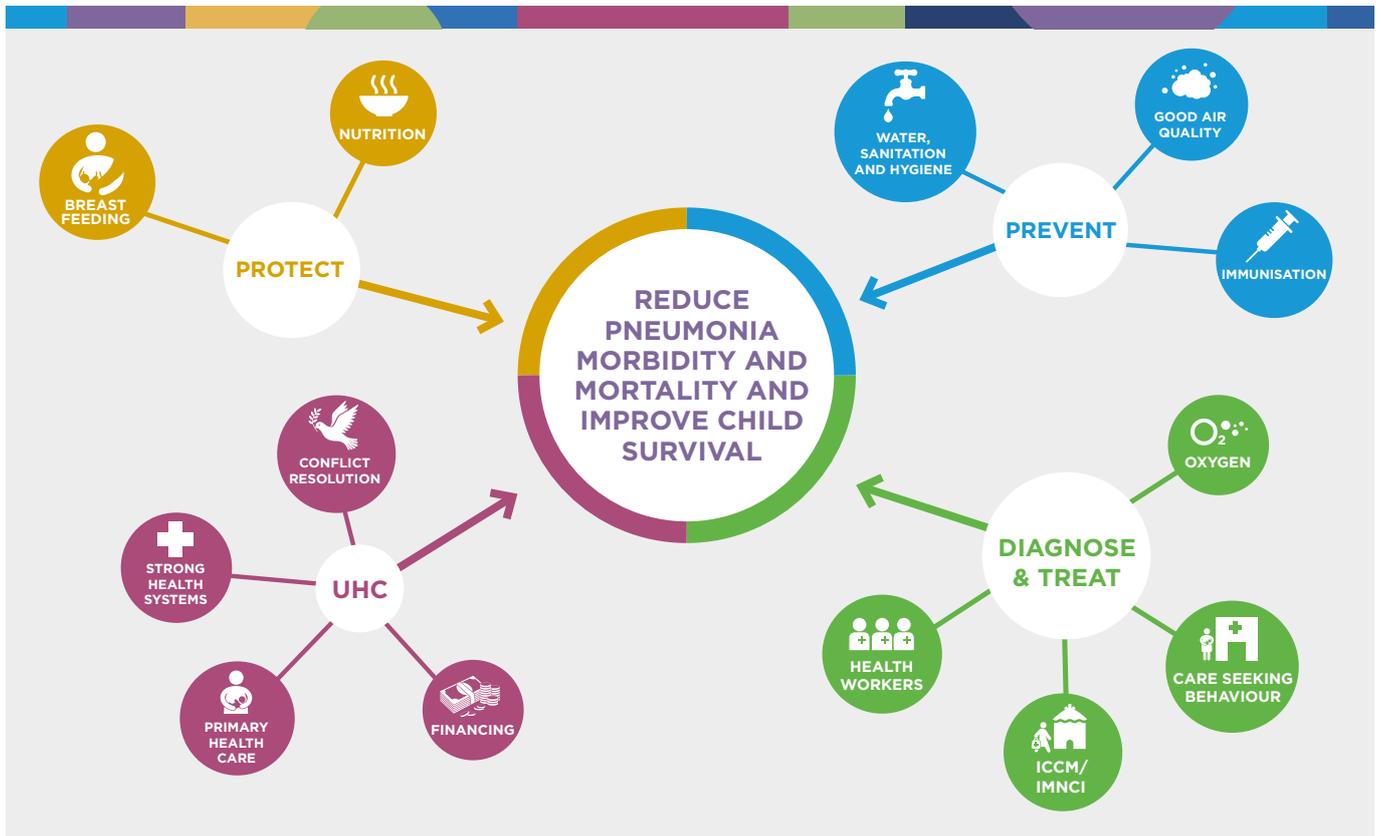
**\$78** spent by the government on health per person in 2018.

**7%** of the government's budget spent on health in 2018.

**2%** of GDP spent on health by the government in 2018.

**67%** of the government's budget spent on primary health care in 2016.

**33%** of total health expenditure was out-of-pocket in 2018.



## 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.

**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.

**2** ZERO HUNGER



Nutrition<sup>8</sup>

### Kenya Status

#### Wasting

**4%** is the wasting rate for under-five children in 2014.

#### Stunting

**26%** is the stunting rate in 2014.

To remain on track to achieve SDG 2 in 2030, Kenya needs to reduce stunting rates to **17%** by 2025.

### Sub-national Status<sup>7</sup>

#### Wasting

**8%** is the wasting rate for under-five children in the poorest households in 2014.  
**3%** is the wasting rate for under-five children in the richest households in 2014.

#### Stunting

**36%** is the stunting rate among under-five children in the poorest households in 2014.  
**14%** is the stunting rate among under-five children in the richest households in 2014.

The stunting rate among children in the poorest households is **3 times** higher than among children in the richest 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 feeding<sup>9</sup>

### Kenya Status

**61%** is the exclusive breastfeeding rate in 2014.

### Sub-national Status

**56%** is the exclusive breastfeeding rate among babies in the poorest households in 2014.  
**70%** is the exclusive breastfeeding rate among babies in the richest households in 2014.

# 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



Immunisation<sup>10</sup>

**Kenya Status**

**92%** DTP3 vaccine coverage among 1-year-olds in 2018.

**92%** Hib3 vaccine coverage among 1-year-olds in 2018.

**81%** PCV3 coverage among 1-year-olds in 2018.

**Sub-national Status**

Pentavalent vaccine (Penta3) coverage among 1-year-olds in 2014

**49%** in Mandera County and **99%** in Nandi County,

**83%** among poorest and **93%** among richest households.

**59%** PCV3 coverage rate in West Pokot County, while it is **99%** in Nandi County in 2014.

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 hygiene<sup>11</sup>

**Kenya Status**

**59%** People using basic drinking water services in 2017.

**29%** People using basic sanitation services in 2017.

**25%** People with basic hand washing facilities at home in 2017.

**10%** People practicing open defecation in 2017.

**Sub-national Status**

**50%** rural & **85%** urban people using basic drinking water services in 2017.

**27%** rural & **35%** urban people using basic sanitation services in 2017.

**22%** rural & **32%** urban people with basic hand washing facilities at home in 2017.

**13%** rural & **2%** urban people practicing open defecation in 2017.

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 Pollution<sup>12</sup>

**Kenya Status**

**14%** people with primary reliance on clean fuels and technologies in 2017.

**29** 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 workers<sup>13</sup>

## Kenya Status

**2** doctors per 10,000 people & **15** nurses and midwives per 10,000 people in 2014.



## Sub-national Status

**0.15** doctor in Machakos County and **2** doctors in Isiolo County per 10,000 people in 2018.

**3** nurses in Narok County and **26** nurses in Nyeri County per 10,000 people in 2018.

**60,000** Community Health Workers (CHWs) in 2018

*Data not available*

**YES** – Kenya has a National Task-Shifting Policy, but it does not mandate CHWs to dispense Amoxicillin.

**YES** – all 47 Counties follow the National Task-Shifting Policy.

**NO** – CHWs have not been mandated to dispense Amoxicillin DT 250 mg in any of the 47 Counties.

Global Targets & Standards

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



ICCM<sup>14</sup>

## Kenya Status

**YES** – Kenya has an Integrated Management of Newborn and Childhood Illnesses (IMNCI) Policy 2018. It also has an ICCM Policy which is due for review in 2020 and it is expected that CHWs will then be mandated to dispense Amoxicillin DT 250 mg.

## Sub-national Status

**YES** – all 47 Counties have implemented the IMNCI Policy but only 21 of them have implemented the ICCM Policy.

**YES** – Amoxicillin DT 250 mg is on the National List of Essential Medicines 2016.

**NO** – CHWs in the 47 Counties are yet to be trained 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.



Oxygen<sup>15</sup>

## Kenya Status

**NO** – CHWs are not mandated to use pulse oximeters.

## Sub-national Status

**NO** – None of the 47 Counties are yet to mandate CHWs to use pulse oximeters.

**YES** – Sub-county level health care centres should have medical oxygen as per the IMNCI Strategy 2018.

**YES** – In all 47 Counties, Sub-county district level health care centres should have medical oxygen, but many do not due to supply issues.

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 behaviour<sup>16</sup>

## Kenya Status

**66%** children with pneumonia symptoms were taken to a health facility in 2014.



## Sub-national Status

Children under-five with pneumonia symptoms taken to a health facility in 2014

**63%** from the poorest and **74%** from the richest households

**34%** five in Wajir and **94%** in Uasin Gishu.

# 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/](http://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); Kenya Demographic and Health Survey 2014; Mortality rates are calculated for the 10-year-period preceding the DHS survey
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; Kenya Demographic and Health Survey 2014
6. **Health Financing:** Comprehensive Public Expenditure Report-The National Treasury and Planning, 2018. Government of Kenya; 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:** 2025 target calculated based on WHO methodology; Joint Malnutrition Estimates/ Kenya Demographic and Health Survey 2014
9. **Breastfeeding:** Kenya Demographic and Health Survey 2014
10. **Immunisation:** WHO/UNICEF estimates of national immunization coverage (WUENIC); Kenya Demographic and Health Survey 2014
11. **WASH:** WHO/UNICEF JMP (2019) Progress on household drinking water, sanitation and hygiene 2000-2017
12. **Air Pollution:** WHO Global Health Observatory - SDG 7.1; World Development Indicators (based on Brauer, M. et al. 2017)
13. **Health Workers:** WHO Global Health Observatory – Global Health Workforce Statistics; Kenya community Health Sustainable Financing and Certification Guidelines, 2018; Task sharing Policy guidelines 2017- 2030, Ministry of Health, 2017; Kenya Health Facility Assessment 2018, Government of Kenya
14. **ICCM:** Kenya Essential Medicines List 2016; Integrated Management of New-born & Childhood Illnesses, A guide for health care workers, 2018
15. **Oxygen:** Integrated Management of New-born & Childhood Illnesses, A guide for health care workers, 2018; Kenya Health Service Delivery Indicator Survey 2018 Report, 2019
16. **Care Seeking Behaviour:** Kenya Demographic and Health Survey 2014

Photo credit: Save the Children  
Akokote, one, with her mother, Akuan, at their home in Turkwel, Turkana County, Kenya.

3rd edition, November 2019

## Save the Children

1 St John's Lane  
London EC1M 4AR  
UK

[www.savethechildren.org.uk](http://www.savethechildren.org.uk)

## United Nations Children's Fund (UNICEF)

3 UN Plaza  
New York NY 10017, USA

[www.unicef.org](http://www.unicef.org)

## Every Breath Counts Coalition

hosted by Save the Children  
1 St. John's Lane  
London EC1M 4AR, UK

[stoppneumonia.org](http://stoppneumonia.org)