



# Fighting for Breath in Ethiopia

A CALL TO ACTION TO STOP CHILDREN DYING FROM PNEUMONIA

## 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 and 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 and 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.

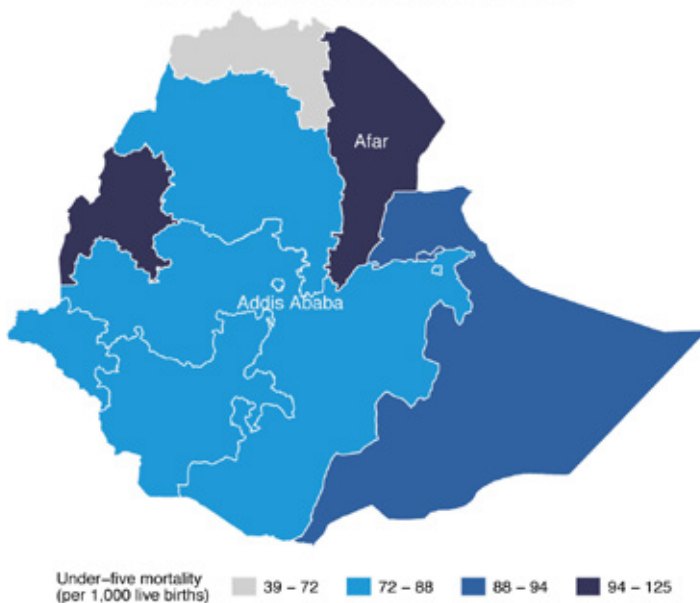
## An unprecedented moment to push for action

The COVID-19 crisis is unlike any we have seen before. This pandemic is presenting the world with ever-evolving, unprecedented challenges, and has highlighted the need for building strong and accessible health systems offering free-at-point-of-use health services. The rapid responses from governments have demonstrated that when health is prioritised, it is possible to mobilise much needed resources to protect the health of all citizens. Universal health coverage can no longer be a point of debate. Strengthening health systems now to cope with COVID-19 will also improve services for the prevention, diagnosis and treatment of childhood pneumonia and have a lasting impact on child survival over the long term.

Now is the time to act. There are only ten years left to deliver on the Sustainable Development Goals (SDGs) - which require all countries to reduce child deaths to at least 25 per 1,000 live births – and only five years to achieve the Integrated Global Action Plan for the Prevention and Control of Pneumonia and Diarrhoea (GAPPD) pneumonia target - which requires all countries to reduce child pneumonia deaths to below 3 per 1,000 births. We need concerted action to improve policies, investment, innovations, and scale up of 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.

# Ethiopia spotlight

Regional inequalities in child mortality in Ethiopia



Data: DHS 2016

## 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.

### ETHIOPIA STATUS

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

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

**90** deaths per 1000 live births among the poorest households and

**67** deaths per 1000 live births amongst the richest households.

In Afar where the mortality rate is

**125** per 1000 live births, children are **3 times** more likely to die before the age of five than children in Addis Ababa where the mortality rate is **39** per 1000 live births in 2016.

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

**54%**

caused by child wasting

**43%**

caused by household air pollution from solid fuels

**18%**

caused by child stunting

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

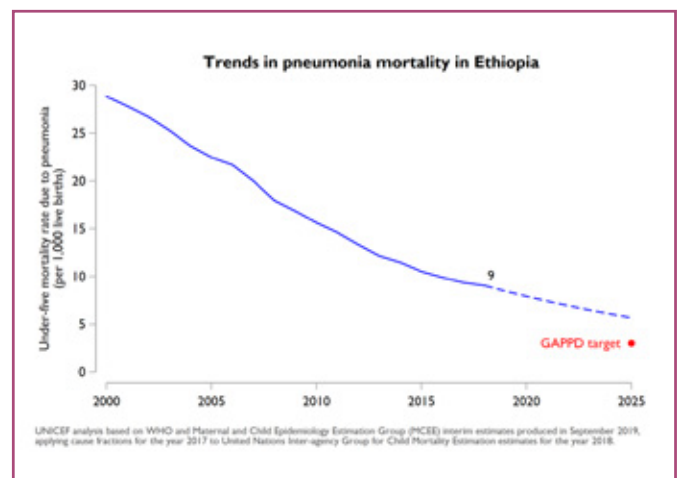
### GLOBAL TARGET

**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).

### ETHIOPIA STATUS

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

**17%** 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 **32,000** children under-five in 2018 – more than **4** children every hour.

**6%** is the average annual rate of reduction in pneumonia mortality between 2000–2018, and at the same rate, Ethiopia is expected to reach the **2025 GAPPD target in 2035**.

## 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 Ethiopia, the coverage of essential health services was just **39%** in 2017. 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 Ethiopia it was as low as **31%** in 2016.

To build strong health systems, increase coverage and deliver UHC, Ethiopia needs to increase domestic public health expenditure towards a target of 5% of GDP. It would be ideal

for Ethiopia 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, by continuing to invest in the Pastoralist Health Extension Programme (PHEP). It is encouraging that Ethiopia spends **80%** of its health budget at the primary health care level, and the more the country 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.

### ETHIOPIA STATUS<sup>6</sup>

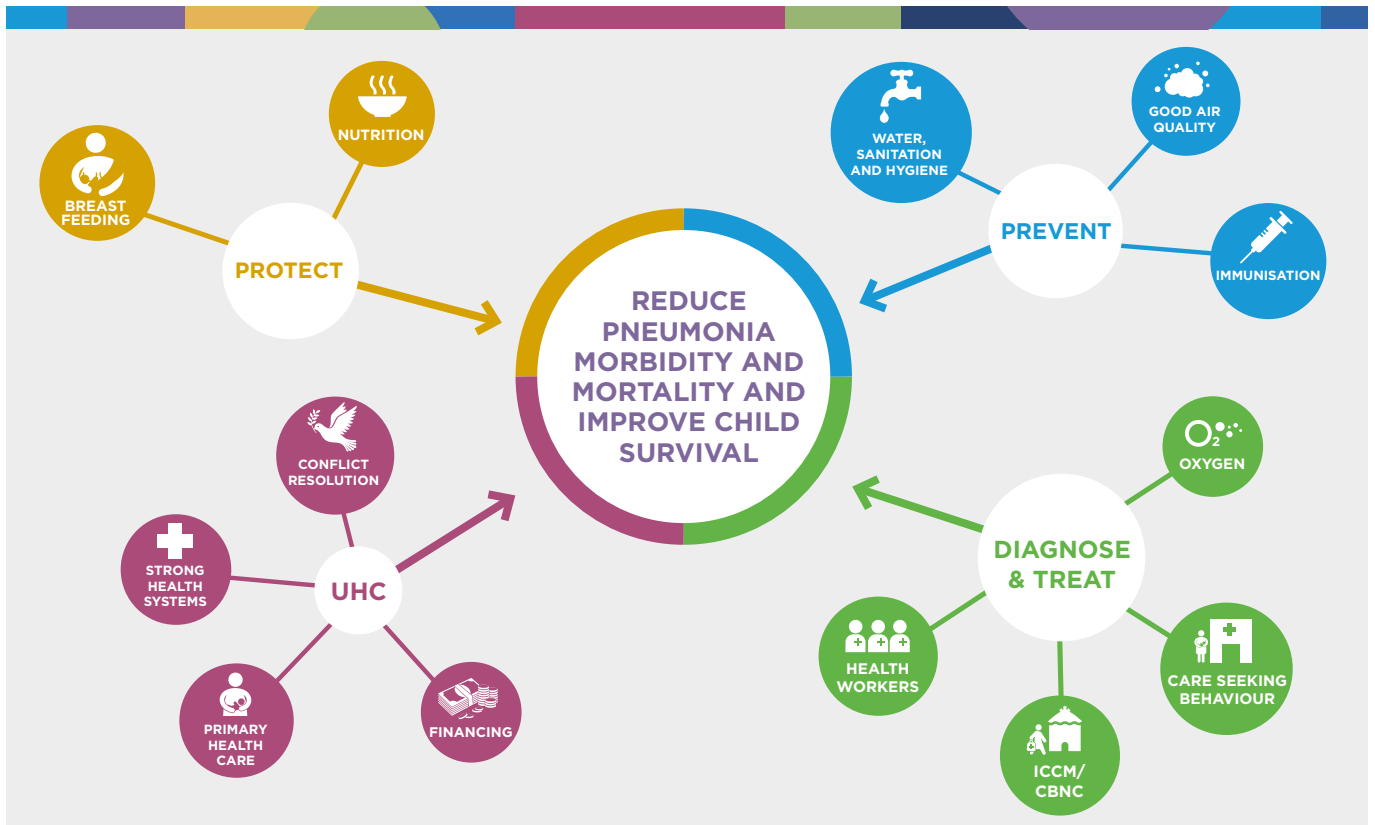
**\$8** spent by the government on health per person in 2016.

**6%** of the government's budget spent on health in 2016.

**1.1%** of GDP spent on health by the government in 2016.

**80%** of the government's budget spent on primary health care as per the National Health Accounts 2016.

**37%** of total health expenditure was out-of-pocket as per the National Health Accounts 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 wasting and stunting in children under-five.

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

**2** ZERO HUNGER



Nutrition<sup>8</sup>

### Ethiopia Status

#### Wasting

**7%** is the wasting rate for under-five children in 2019.

**1%** is the severe wasting rate for under-five children in 2019.

#### Stunting

**37%** is the stunting rate in 2019.

To remain on track to achieve SDG 2 in 2030, Ethiopia needs to reduce stunting rates to **22%** by 2025.

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

#### Wasting

**21%** is the wasting rate for under-five children in Somali Region while it is just **2%** in Addis Ababa in 2019.

*Data not available*

#### Stunting

**41%** is the stunting rate among under-five children in Tigray Region while it is just **26%** in Addis Ababa in 2019.

The stunting rate among children in the rural households is more than **two 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 feeding<sup>9</sup>

### Ethiopia Status

**59%** is the exclusive breastfeeding rate in 2019.

### Sub-national Status

**55%** is the exclusive breastfeeding rate among babies in the poorest households in 2016.

**67%** is the exclusive breastfeeding rate among babies in the richest households in 2016.

# 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)

**Penta3** (Pentavalent vaccine) and **PCV3** (Pneumococcal Conjugate) vaccines included in the national immunisation programme.

**3** GOOD HEALTH AND WELL-BEING



Immunisation<sup>10</sup>

## Ethiopia Status

**72%** Penta3 vaccine coverage among 1-year-olds in 2019.

**67%** PCV3 coverage among 1-year-olds in 2019.

## Sub-national Status

Pentavalent vaccine (Penta3) coverage among 1-year-olds in 2019

**72%** in urban areas and just **56%** in rural areas,

**93%** in Addis Ababa and just **26%** in Somali Region.

PCV3 coverage among 1-year-olds in 2019

**78%** in urban areas and just **52%** in rural areas,

**93%** in Addis Ababa and just **23%** in Afar and Somali Regions.

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>

## Ethiopia Status

**11%** People using safely managed drinking water services in 2017.

**7%** People using at least basic sanitation services in 2017.

**8%** People with basic hand washing facilities at home in 2017.

**22%** People practicing open defecation in 2017.

## Sub-national Status

**5% rural & 38% urban** people using safely managed drinking water services in 2017.

**4% rural & 20% urban** people using at least basic sanitation services in 2017.

**4% rural & 23% urban** people with basic hand washing facilities at home in 2017.

**27% rural & 5% 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>

## Ethiopia Status

**<5%** people with primary reliance on clean fuels and technologies in 2017.

**39** 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.

**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.

**3** GOOD HEALTH AND WELL-BEING



Health workers<sup>13</sup>

## Ethiopia Status

**1** doctor per 10,000 people &

**8** nurses and midwives per 10,000 people in 2017.

**38,000** community health workers as cited in the HSTP Report 2017.

**YES** – The ICCM National Guidelines mandate Community Health Extension Workers (CHEW) to dispense Amoxicillin dispersible tablets 250 mg and Gentamicin 20 mg injections.

## Sub-national Status

**Less than 1** doctor per 10,000 people in Somali, Afar, Oromia & Amhara Regions  
**7** doctors per 10,000 people in Addis Ababa Region in 2017.

**Less than 1/2** a nurse per 10,000 people in Somali, Afar, Oromia & Amhara Regions  
**23** nurses per 10,000 people in Addis Ababa Region in 2017.

*Data not available*

**YES** – CHEWs have been mandated and trained to dispense Amoxicillin dispersible tablets 250 mg and Gentamicin 20 mg injections in all 9 Regional & 2 Administrative States.

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>

## Ethiopia Status

**YES** – Ethiopia has merged the National Community Based Newborn Care (CBNC) and ICCM Guidelines.

**YES** – Amoxicillin dispersible tablets 250 mg and Gentamicin 20mg injections are on the essential medicines list.

## Sub-national Status

**YES** – All agrarian and pastoralist States follow the ICCM/ CBNC Guidelines.

**YES** – All agrarian and pastoralist States have mandated and trained CHEWs to dispense Amoxicillin dispersible tablets 250 mg and Gentamicin 20mg injections.

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>

## Ethiopia Status

**YES** – Community health extension workers are mandated to use pulse oximeters by the National Medical Oxygen Road Map, but this has not been rolled out.

**YES** – Health centres in Woredas should all have medical oxygen as per the National Medical Oxygen Road Map.

## Sub-national Status

**NO** – All 9 Regional & 2 Administrative States are yet to mandate and train CHEWs on the use of pulse oximeters, as the National Medical Oxygen Road Map is yet to be rolled out.

**YES & NO** – In the 9 Regional & 2 Administrative States, only **11%** of health centres in Woredas have medical oxygen facilities, with only **2%** of those maintaining a functional cylinder or concentrator in 2016.

Global Targets & Standards

**90%** pneumonia care seeking behaviour by 2025 as per the Global Action Plan for the Prevention and Control of Pneumonia and Diarrhoea (GAPPD). All children with pneumonia symptoms should be taken promptly to an appropriate health facility.



Care seeking behaviour<sup>16</sup>

## Ethiopia Status

Only **31%** children with pneumonia symptoms were taken to a health facility in 2016.

## Sub-national Status

**25%** of children under-five with pneumonia symptoms, from the poorest households, were taken to a health facility in 2016.

**40%** of children under-five with pneumonia symptoms, from the richest households, were taken to a health facility in 2016.

# 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 350 participants from 55 countries – 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 – come together for the first-ever Global Forum on Childhood Pneumonia as part of an effort to build that agenda and galvanise national and international action.

*The Declaration which was endorsed at the Global Forum can be found here:*  
[stoppneumonia.org/latest/global-forum/](https://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; Ethiopia Demographic Health Survey 2016; 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; Ethiopia Demographic Health Survey 2016; Ethiopia National Health Accounts 2016
6. **Health Financing:** WHO Global Health Expenditure database; Ethiopia National Health Accounts 2016
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:** Mini Ethiopia Demographic Health Survey 2019; 2025 target calculated based on WHO methodology; Multiple Indicator Cluster Surveys (MICS) 2017, UNICEF
9. **Breastfeeding:** Mini Ethiopia Demographic Health Survey 2019; Ethiopia Demographic Health Survey 2016; GRID, Save the Children's Child Inequality Tracker
10. **Immunisation:** Mini Ethiopia Demographic Health Survey 2019
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), World Bank
13. **Health Workers:** WHO Global Health Observatory – Global Health Workforce Statistics; Health Sector Transformation Plan – 2017/18 Report; Health and Health Related Indicators (2017/18); National Implementation Guideline for Integrated Community Case Management of Childhood Illnesses and Newborn Care, April 15, 2017
14. **ICCM:** WHO Essential Medicines and Health Products Information Portal; FMOH Annual Health Sector Performance, EFY (2017/2018); National Implementation Guideline for Integrated Community Case Management of Childhood Illnesses and Newborn Care, April 15, 2017
15. **Oxygen:** National Medical Oxygen Road Map 2016-2020/2021
16. **Care Seeking Behaviour:** Ethiopia Demographic Health Survey 2016

Photo credit: Save the Children  
Nunea with her six months old Mohammed at her home in Alo Egarse Kebele of Shebelle Zone, Ethiopia.

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