

## Biggest killer, 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.

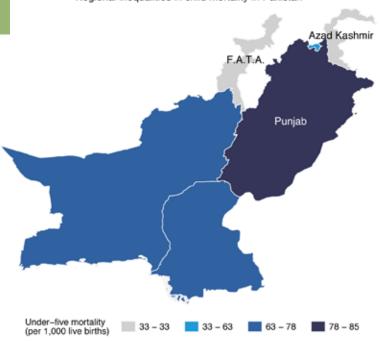






### Pakistan spotlight

Regional inequalities in child mortality in Pakistan



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







### 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.

#### **PAKISTAN STATUS**

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

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

100 deaths per 1000 live births among the poorest households compared with

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

In the Punjab where the mortality rate is

85 per 1000 live births, children are 2 ½ times more likely to die before the age of five than children in Kidal Region where the mortality rate is just

**33** per 1000 live births in 2017.

### PNEUMONIA RELATED UNDER-FIVE MORTALITY

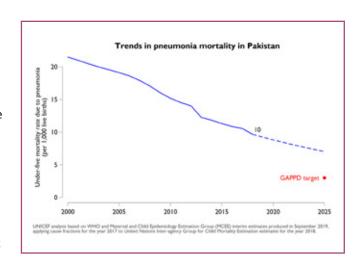
#### **GLOBAL TARGET**

**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).

#### **PAKISTAN STATUS**

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

**14%** of child deaths were due to pneumonia in 2018, and it was the **third biggest killer** of children under-five in 2017.



Pneumonia killed more than 58,000 children under-five in 2018 – more than 7 child every hour.

4% is the average annual rate of reduction in pneumonia mortality between 2000–2018, and at the same rate, Pakistan is expected to reach the 2025 GAPPD target later than 2044.

## 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 Pakistan, the coverage of essential health services was just 45% in 2017. Although, it is reassuring that 84% of children with pneumonia symptoms were taken to a health facility in 2017, which include private and informal healthcare providers.

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

#### **PAKISTAN STATUS<sup>6</sup>**

\$11 spent by the government on health per person in 2016.

4% of the government's budget spent on health in 2018.

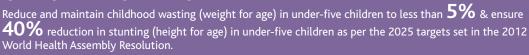
**0.8%** of GDP spent on health by the government in 2018.

...% of the government's budget spent on primary health care in 2016. No data available.

**65%** of total health expenditure was out-of-pocket in 2016.

## PROTECT children by establishing good health practices from birth

**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.





**Pakistan Status** 

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

#### Wasting

18% is the wasting rate for under-five children in 2018.

#### Wasting

19% is the wasting rate for under-five children in rural households in 2018.

16% is the wasting rate for under-five children in urban households in 2018.

#### Stunting

**40%** is the stunting rate in 2018.

#### Stunting

43% is the stunting rate among under-five children in rural households in 2018.

35% is the stunting rate among under-five children in urban households in 2018.

To remain on track to achieve SDG 2 in 2030, Pakistan needs to reduce stunting rates to 25% by 2025.

Global Targets & Standards

**Global Targets** & Standards

**Nutrition**<sup>®</sup>

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



**Pakistan Status** 

**Sub-national Status** 

**Breast** feeding<sup>®</sup>

48% is the exclusive breastfeeding rate in 2018.



44% is the exclusive breastfeeding rate in Punjab Province in 2018.61% is the exclusive breastfeeding rate in Khyber Pakhtunkhwa Province in 2018.

### 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)

3 GOOD HEALTH
AND WELL-BEING

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

Immunisation10

**Pakistan Status** 

Pentavalent vaccine (Penta3) coverage among 1-year-olds in 2017

37% in Balochistan Province, 89% in Punjab Province,

51% among poorest households, 91% among richest households.

**79%** PCV3 coverage among 1-year-olds in 2018.

**75%** Penta3 vaccine coverage

among 1-year-olds in 2018.

PCV3 coverage among 1-year-olds in 2018

50% among the poorest households &

90% in the richest households.

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.



Water, sanitation

and hygiene"

**Pakistan Status** 

**Sub-national Status** 

35% People using basic drinking water services in 2017.

33% rural & 40% urban people using basic drinking water services in 2017.

60% People using basic sanitation services in 2017.

50% rural & 77% urban people using basic sanitation services in 2017.

**60%** People with basic hand washing facilities at home in 2017.

46% rural & 83% urban people with basic hand washing facilities at home in 2017.

10% People practicing open defecation in 2017.

16% rural & 0% urban people practicing open defecation

**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 (µg/m3) should be the mean annual exposure to Fine Particulate Matter (PM<sub>2.5</sub>) as per WHO Air Quality Guidelines.



**Pakistan Status** 

**Sub-national Status** 

**44%** people with primary reliance on clean fuels and technologies in 2017.

Data not available

58 micro grams per cubic metre of air (µg/m³) is the mean annual exposure to  $PM_{_{2.5}}$  pollution in urban settings in 2017.

211 micro grams per cubic metre of air (µg/m³) is the real time exposure to PM<sub>25</sub> pollution in Lahore city on 20th November 2019.

301 micro grams per cubic metre of air (µg/m³) is the real time exposure to PM2.5 pollution in Peshawar city on 20th November 2019.

### **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.

Health workers

**Pakistan Status** 

8 doctors per 10,000 people &

4 nurses and midwives per 10,000 people in 2015.

**Sub-national Status** 

4 doctors in rural areas and 15 doctors per 10,000 people in urban areas in 2015.

3 nurses & midwives in rural areas and 8 nurses & midwives per 10,000 people in 2015.

102, 481 Lady Health Workers (LHWs) in 2019.

6,700 Lady Health Workers (LHWs) in Balochistan Province and

43,714 in Punjab Province in 2019.

NO – Pakistan does not have a National Task-Shifting Policy.

NO – None of the 4 Provinces and 2 Areas have a Task-Shifting Policy.



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



**Pakistan Status** 

YES – Pakistan has an Integrated Management of Neonatal and Childhood Illness (IMNCI) Policy since 1998 and the National Inservice IMNCI module has been endorsed since 31st Aug 2018. The community and pre-service IMNCI guidelines are in the process of being updated as per WHO revised guidelines.

**Sub-national Status** 

YES – All 4 Provinces and 2 Areas of Pakistan have implemented the IMNCI Policy.



YES – Amoxycillin dispersible tablets 250 mg are on the Essential Medicines List 2016.

YES & NO – LHWs were trained to dispense the 1st dose of Amoxycillin dispersible tablets 250 mg followed by referral in Punjab and Sindh Provinces only. Currently, LHWs are dispensing the 1st dose of Amoxycillin dispersible tablets 250 mg only in Sindh province.



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.



**Pakistan Status** 

NO – CHWs are not mandated to use pulse oximeters.

**Sub-national Status** 

NO – None of the 4 Provinces and 2 Areas are yet to mandate LHWs to use pulse oximeters.

**Oxygen<sup>15</sup>** 

YES – All Province, Territory, Division and District level health care centres should have medical oxygen as per the Essential Health Service Package.

NO – All Division and District level health care centres have medical oxygen, but transportation, regular supply and improper use, are some of the challenges.



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

**Pakistan Status** 

84% children with pneumonia symptoms were taken to a health facility in 2017, which include private and informal healthcare providers.



74% of children under-five with pneumonia symptoms, from the poorest households, were taken to a health facility in 2017.

91% 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.

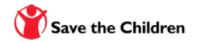
On 29-31 January 2020 in Barcelona, Spain, over 350 participants from 55 countries – including ministers and senior planners from high-burden countries, major development donors, UN and multilateral agencies, non-government organisations, corporate and philanthropic leaders and the pneumonia research 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/

### 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.
- Improve health governance by ensuring
   accountability, transparency and inclusiveness in planning, budgeting and expenditure monitoring, including for pneumonia control strategies.
- 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.
- Prioritise research, development and innovation to improve access to the most affordable and cost-effective pneumonia prevention, diagnosis, referral and treatment technologies and services.
- 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:**

- 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: Pakistan Demographic and Health Survey 2017-18; 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; Pakistan Demographic and Health Survey 2017-18
- 6. Health Financing: WHO Global Health Expenditure database
- 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: National Nutrition Survey 2018: Key Findings Report, Government of Pakistan and UNICEF
- 9. Breastfeeding: National Nutrition Survey 2018: Key Findings Report, Government of Pakistan and UNICEF
- 10. Immunisation: WHO/UNICEF estimates of national immunization coverage (WUENIC); Pakistan Demographic and Health Survey 2017-18
- 11. WASH: WHO/UNICEF JMP (2019) Progress on household drinking water, sanitation and hygiene 2000-2017
- 12. Air Pollution: WHO Global Health Observatory SDG7.1, Clean Household Energy; World Development Indicators (based on Brauer, M. et al. 2017); US Consulate Real Time Air Quality Index November 2019
- 13. Health Workers: WHO Global Health Workforce Alliance 2015; Administrative data from Provincial /Area, LHW Programme, Department of Health, Pakistan, 2019
- ICCM: MoNHSRC Notification letter F.No.8-1/2017-IMNCI-DD (PIII) 31st Aug 2018; Essential Medicines List, Pakistan, 2016; Lady Health Worker's Training Curriculum; Provincial DoH intimation to UNICEF in TWG meetings and broader government forums
- 15. Oxygen: Lady Health Worker's Training Curriculum; Essential Health Service Package 2008; Minimum Service Delivery Package (MSDP) 2019
- 16. Care Seeking Behaviour: Pakistan Demographic and Health Survey 2017-18

Photo credit: © UNICEF/UNI61260/Zaidi A mother with her child in Sirangoo Village Thar district Sindh Province.

May 2020

1 St John's Lane London EC1M 4AR UK www.savethechildren.org.uk United Nations Children's Fund (UNICEF)

3 UN Plaza New York NY 10017, USA www.unicef.org Every Breath Counts Coalition hosted by Save the Children 1 St. John's Lane London EC1M 4AR, UK

stoppneumonia.org