

World Pneumonia Day: “Championing the Fight to Stop Pneumonia”

World Pneumonia Day, held annually on November 12, provides an annual forum for the world in the fight against pneumonia. World Pneumonia Day is a yearly reminder that pneumonia can strike anywhere and anytime, and is a serious, potentially life-threatening lung infection. The theme for the World Pneumonia Day 2024 is “Championing the fight to stop pneumonia”. The day aims to raise awareness of pneumonia as a public health issue, promote prevention and treatment, and provide a forum for the world to fight pneumonia.

Pneumonia is primarily caused by viruses, bacteria or fungi that are transmitted from one person to another. Pneumonia, a leading cause of death among children worldwide, is an acute respiratory infection that affects the lungs. It can be caused by various pathogens, including bacteria, viruses, and fungi. The most common type of bacterial pneumonia is pneumococcal pneumonia. While it can affect people of all ages, children are particularly vulnerable due to their developing immune systems.

Pneumonia is a preventable and treatable disease that sickens 155 million children under 5 and kills 1.6 million each year. This makes pneumonia the number 1 killer of children under 5, claiming more lives in this age-group than AIDS, malaria, and measles combined. World Pneumonia Day aims to help bring this health crisis to the public’s attention and encourages policy-makers and grassroots organizers alike to combat the disease.

The fight to reduce deaths from the single, biggest infectious killer of adults and children has never been more urgent. In 2021, pneumonia claimed the lives of 2.2 million, including 5,02,000 children, and COVID-19 killed an additional 10 million, according to the Global Burden of Disease. Together, they caused more deaths than any other cause, including heart disease. With climate change continuing to increase the burden of respiratory conditions and the risk of another pandemic of respiratory infection high, there is a pneumonia crisis across the life course placing millions at risk of infection and death.

Tragically, it is the very young and the very old who are at the greatest risk. Children living in areas with low vaccination rates and rising malnutrition, and in homes that use polluting fuels for cooking and heating, are particularly vulnerable. Older adults exposed to outdoor air pollution – most significantly from burning fossil fuels – and smoking are also at risk. Almost half of the estimated 1.5 million pneumonia deaths among adults aged over 50 are attributable to air pollution and smoking.

Key Statistics and Facts about Pneumonia

1. Pneumonia is the leading cause of infectious death in children globally, with 22% of deaths among children under five.
2. In 2019, an estimated 2.5 million deaths were attributed to pneumonia, including more than 670,000 children under five.
3. The majority of pneumonia deaths occur in low- and middle-income countries, particularly in sub-Saharan Africa and South Asia.
4. The Global Burden of Disease study reports that while overall child mortality has decreased, pneumonia remains one of the top killers of young children, despite being preventable and treatable.
5. The COVID-19 pandemic further highlighted the dangers of respiratory infections, as pneumonia was a common complication in severe COVID-19 cases.

History of World Pneumonia Day

World Pneumonia Day (WPD) was first established in 2009 by the Global Coalition Against Child Pneumonia, a network of international, government, non-governmental, and community-based organizations. The coalition aimed to raise awareness about pneumonia’s impact on child mortality and advocate for stronger prevention and treatment strategies. Over the years, the scope of WPD expanded to include all age-groups, recognizing that pneumonia affects adults and the elderly as well. Each year, the WPD has evolved to focus on different themes that reflect the ongoing challenges in fighting pneumonia. The day serves as a reminder of the global commitment to reducing pneumonia deaths, improving healthcare access, and encouraging innovation in vaccines, treatments, and diagnostics.

Impact of Pneumonia on Global Health

Pneumonia’s burden extends beyond mortality. Survivors, especially children, may face long-term health complications, including reduced lung function, developmental delays, and recurring respiratory infections. The disease also places a significant strain on healthcare systems, with millions of hospital admissions annually. In regions with limited healthcare resources, the demand for antibiotics, oxygen therapy, and intensive care often exceeds capacity. In addition to direct health impacts, pneumonia affects families economically. The costs associated with treatment, lost productivity, and long-term healthcare needs, can be crippling, particularly in poverty-stricken communities.

Causes and Risk Factors

Causes

Pneumonia can be caused by bacteria, viruses, and fungi. Common pathogens include:

Bacteria: *Streptococcus pneumoniae* is the most frequent cause of bacterial pneumonia.

Viruses: Respiratory syncytial virus (RSV), influenza, and coronaviruses are common viral causes.

Fungi: Fungal infections such as *Pneumocystis jirovecii* are more common in individuals with weakened immune systems.

Risk Factors for Pneumonia

Age: Children under five and adults over 65 are at higher risk.

Malnutrition: A weakened immune system due to poor nutrition can increase susceptibility to infection.

Chronic illnesses: Conditions like asthma, heart disease, and diabetes heighten the risk of pneumonia.

Environmental factors: Air pollution, smoking, and exposure to secondhand smoke are significant contributors.

Immunosuppression: HIV/AIDS and cancer treatments can compromise the immune system, making individuals more vulnerable.

Prevention and Treatment

Affordable treatment and prevention options exist against pneumonia. There are effective vaccines against the two most common bacterial causes of deadly pneumonia, *Haemophilus influenzae* type B and *Streptococcus pneumoniae*, and most common viral cause of pneumonia, influenza. The Global Action Plan for the Prevention and Control of Pneumonia (GAPP) released by the WHO and UNICEF on World Pneumonia Day, 2009, finds that 1 million children's lives could be saved every year if prevention and treatment interventions for pneumonia were widely introduced in the world's poorest countries.

Prevention strategies include vaccination, adequate nutrition, and addressing environmental risks such as air pollution. Vaccines are crucial in protecting against common pathogens like *Streptococcus pneumoniae* and *Haemophilus influenzae* type B (Hib). In addition to childhood immunizations, vaccines like the pneumococcal vaccine and influenza vaccine are essential for older adults and individuals with chronic health conditions. Treatment for pneumonia typically involves antibiotics for bacterial infections, antiviral medications for viral causes, and supportive care, including oxygen therapy. Prompt diagnosis and appropriate medical intervention can significantly reduce the risk of complications and death.

Role of Vaccination in Preventing Pneumonia

Vaccines play a pivotal role in preventing pneumonia. The pneumococcal conjugate vaccine (PCV) and *Haemophilus influenzae* type B (Hib) vaccine are among the most effective tools for reducing pneumonia cases among children. The influenza vaccine also helps prevent flu-related pneumonia, particularly among high-risk populations like the elderly and individuals with chronic diseases. Expanding access to vaccines in low-income countries remains a challenge. Initiatives like Gavi, the Vaccine Alliance, work to ensure that vaccines are available in the world's poorest nations. However, more investment and political commitment are needed to improve immunization coverage.

Fight Against Air Pollution: A Key Element in Reducing Pneumonia

Environmental factors, particularly air pollution, contribute significantly to pneumonia cases worldwide. Indoor and outdoor air pollution, including smoke from cooking stoves, secondhand smoke, and industrial pollutants, increases the risk of respiratory infections. According to the WHO, air pollution is responsible for more than 1.6 million deaths from pneumonia annually. Efforts to reduce air pollution are crucial in the fight against pneumonia. Transitioning to cleaner cooking fuels, improving indoor ventilation, and enforcing stricter air quality standards, are vital steps in reducing the burden of respiratory infections.

World Pneumonia Day 2024 is an urgent call for action to prevent a disease that remains a leading cause of death among children and vulnerable populations. Through sustained efforts in vaccination, improved healthcare access, reducing environmental risks, and global partnerships, millions of lives can be saved. As we mark this day, it is crucial to recognize that pneumonia is not just a medical issue—it is a social and economic one, requiring comprehensive strategies to ensure that no one is left behind in the fight against pneumonia.

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