WHO Social media toolkit for Air pollution and Child Health: Prescribing Clean Air Launch
29 October 2018
Geneva, Switzerland

Air Pollution and Child Health: Prescribing Clean Air

The report Air Pollution and Child Health: Prescribing Clean Air summarizes the latest scientific knowledge on the links between exposure to air pollution and adverse health effects in children. It is intended to inform and motivate individual and collective action by health care professionals to prevent damage to children’s health from exposure to air pollution.

Although more rigorous research into how air pollution affects children’s health will continue to be valuable, this report and similar ones before it provide ample evidence to justify strong, swift action to prevent the damage it clearly produces. Health professionals, policy makers, members of civil society and the general public must come together to address this threat as a priority, through collective, coordinated efforts. For the millions of children exposed to polluted air every day, there is little time to waste and so much to be gained.

Social media toolkit for the release of the WHO report “Air Pollution and Child Health: Prescribing Clean Air:

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1. Introduction to social media resources

This toolkit provides a set of sample social media messages, which stakeholders and supporters of the WHO report, *Air Pollution and Child Health: Prescribing Clean Air*, may wish to use in their personal and institutional accounts to distribute and amplify messages.

HASHTAGS:
Key hashtag: #BreatheLife #AirPollution #BeatAirPollution #PrescribingCleanAir

HANDLES:
Key Institutions: @WHO @UNEP @CCACoalition @WHO_Europe, @WHOSEARO, @pahowho, @WHOWPRO, @WHOAFRO, @WHOEMRO @WMO

Other Institutions:
WHO representatives: @DrTedros, @DrMariaNeira

2. Children’s Exposure To Air Pollution – key messages & Tweets

- Exposure to air pollution is an overlooked health emergency for children around the world.
- While such exposure is a persistent problem in some high-income countries (HICs) – especially in low-income communities within those countries – the vast majority of child deaths from exposure to particulate matter air pollution occur in low- and middle-income countries (LMICs).
- The proportions of children exposed to levels of fine particulate matter (PM2.5) higher than the WHO air quality guidelines are as follows:
  - 93% of all children < 18 years of age and about 630 million children under 5 years in the world;
  - in LMICs, 98% of all children under 5 years;
  - in HICs, 52% of children under 5 years;
  - in the WHO African and Eastern Mediterranean regions, 100% of all children under 5 years;
  - in LMICs in the South-East Asia Region, 99% of all children under 5 years;
  - in LMICs in the Western Pacific Region, 98% of all children under 5 years; and
  - in LMICs in the Americas Region, 87% of all children under 5 years.
- Outdoor air pollution
  - Ambient Air Pollution is derived mainly from fossil fuel combustion, industrial processes, waste incineration, agricultural practices and natural processes such as wildfires, dust storms and volcanic eruptions.
  - The main sources of air pollution may vary from urban to rural areas, but no area is, strictly speaking, safer.
  - AAP was responsible for 4.2 million premature deaths in 2016; of these, almost 300 000 were children under 5 years old.
- Indoor air pollution
  - The risks associated with breathing Household Air Pollution can be just as great.
Breathing clean air at home is essential for children’s healthy development, but widespread dependence on solid fuels and kerosene for cooking, heating and lighting results in far too many children living in heavily polluted home environments.

Women and children in low- and some middle-income countries (LMIC) spend much of their time around the hearth, exposed to smoke from cooking fires, resulting in indoor concentrations of some pollutants that are five or six times the levels in ambient air.

About three billion people worldwide still depend on polluting fuels and devices for cooking and heating.

The widespread lack of access to clean household energy has tragic consequences on a vast scale: HAP was responsible for 3.8 million premature deaths in 2016, including over 400 000 deaths of children under 5 years of age.

TWEETS ON CHILDREN'S HEALTH

1. .@WHO’s new report on #AirPollution and children's health finds that almost 630 million children under 5 are exposed to air pollution levels that do not meet WHO limits [link to be added]

2. .@DrTedros launches new @WHO report that finds 93% of children around the world are exposed to air pollution levels that do not meet WHO limits [link to be added]

3. .@WHO Exposure to #AirPollution is an overlooked health emergency for children around the world. It’s time everyone takes notice #PrescribingCleanAir [link to be added]

4. .@WHO In low and middle-income countries, 98% of all children under 5 years are exposed to dirty air. In high-income countries, 52% of children under 5 breathe polluted air #PrescribingCleanAir [link to be added]

5. .@WHO In the African and Eastern Mediterranean regions, 100% of all children under 5 years breathe dirty air. We can change this together [link to be added]

6. .@WHO In South-East Asia, 99% of all children under 5 years breathe dirty air on a daily basis. Together, we can tackle this public health emergency #PrescribingCleanAir [link to be added]

7. .@WHO In low and middle-income countries in the Western Pacific, 98% of all children under 5 years breath dirty air. Together, we can change this. #PrescribingCleanAir [link to be added]

8. @WHO In low and middle-income countries in the Americas, 87% of all children under 5 years breathe dirty air. We can change this together #PrescribingCleanAir #AirPollution [link to be added]

9. Outdoor air pollution was responsible for 4.2 million premature deaths in 2016. Of these, around 300 000 were children under 5 years old. The time to act on #AirPollution is now #PrescribingCleanAir #BeatAirPollution [link to be added]
10. Household air pollution was responsible for 3.8 million premature deaths in 2016, including over 400,000 deaths of children under 5 years of age. This is a public health crisis #PrescribingCleanAir #BeatAirPollution [link to be added]

[possible tags: @WHO, @WHO_Europe, @WHOSEARO, @pahowho, @WHOWPRO, @WHOAFRO, @WHOEMRO, @DrTedros, @DrMariaNeira]

11. @WHO About three billion people worldwide still depend on polluting fuels and devices for cooking and heating, leading to a lifetime of breathing dirty air. #PrescribingCleanAir. [link to be added]

Click here to access the infographic

[possible tags: @WHO, @WHO_Europe, @WHOSEARO, @pahowho, @WHOWPRO, @WHOAFRO, @WHOEMRO, @DrTedros, @DrMariaNeira]

3. Effects of Air Pollution on Children’s Health and Children’s Unique Exposure Risk - key messages & Tweets

- Exposure to pollutants in the air threatens the health of people of all ages, in every part of the world, in both urban and rural areas, but it affects the most vulnerable among us – children – in unique ways.
- Children are at greater risk than adults from the many adverse health effects of air pollution, owing to a combination of behavioural, environmental and physiological factors.
- Children are especially vulnerable during fetal development and in their earliest years, while their lungs, organs and brains are still maturing.
- Children breathe faster than adults, taking in more air and, with it, more pollutants. Children live closer to the ground, where some pollutants reach peak concentrations. They may spend much time outside, playing and engaging in physical activity in potentially polluted air.
- Newborn and infant children, meanwhile, spend most of their time indoors, where they are more susceptible to household air pollution, as they are near their mothers while they cook with polluting fuels and devices.
- Children have a longer life expectancy than adults, so that latent disease mechanisms have more time to emerge and affect their health.
- Children’s bodies, and especially their lungs, are rapidly developing and therefore more vulnerable to inflammation and other damage caused by pollutants.
- In the womb, they are vulnerable to their mothers’ exposure to pollutants. Exposure before conception can also impose latent risks on the fetus.
- The consequences of their exposure – through inhalation, ingestion or in utero – can lead to illness and other health burdens that last a lifetime.
- Children depend entirely on us – adults – to protect them from the threat of unsafe air.
- Globally in 2016, one in every eight deaths was attributable to breathing dirty air – a total of 7 million deaths.
- Some 543,000 deaths in children under 5 years and 52,000 deaths in children aged 5–15 years were attributed to the joint effects of AAP and HAP in 2016.
- Together, HAP from cooking and AAP cause more than 50% of acute lower respiratory infections (ALRI) in children under 5 years of age in LMICs.
- Of the total number of deaths attributable to the joint effects of HAP and AAP worldwide in 2016, 9% were in children.
In 2016, AAP was responsible for approximately 261,000 deaths from ALRI and almost 24 million disability-adjusted life-years (DALYs) among children under 5 years.

In 2016, HAP was responsible for approximately 403,000 deaths from ALRI and 37 million DALYs among children under 5 years (Fig. 3).

These tragically high tolls are for just one disease, ALRI. The total burden of mortality and morbidity among children due to exposure to AAP and HAP is much greater. Evidence of the many different adverse health effects of exposure to air pollution is discussed below.

Exposure to air pollution contributes to more than half of all deaths from ALRI in children under 5 years in LMICs, making it one of the leading killers of children worldwide.

The five leading causes of death in children under 5 globally are prematurity, acute respiratory infections, intrapartum-related complications (including birth asphyxia), other group 1 conditions and congenital anomalies (9).

Premature birth is the only factor that kills more children under 5 globally than acute respiratory infections (Fig. 4). In the African Region, acute respiratory infection is the leading cause of death of children under 5.

TWEETS ON AIR POLLUTION’S EFFECT ON CHILDREN’S HEALTH

1. @WHO: Exposure to pollutants in the air threatens the health of people of all ages, but it affects the most vulnerable among us – children – in unique ways #AirPollution #PrescribingCleanAir
   Click here to access the infographic
   [possible tags: @WHO, @WHO_Europe, @WHOSEARO, @pahowho, @HOWPRO, @WHOAFRO, @WHOEMRO, @DrTedros, @DrMariaNeira]

2. @WHO: Children depend entirely on us to protect them from the threat of unsafe air. Are we doing enough? Learn more about the impact of dirty air on little lungs: [link to be added]

3. #AirPollution led to 543,000 deaths in children under 5 years and 52,000 deaths in children aged 5–15 years in 2016. As health professionals, we can and must do better #PrescribingCleanAir

4. @WHO: Breathing dirty air caused the deaths of almost 600,000 children in 2016. As health professionals, we can and must do better #PrescribingCleanAir
   [possible tags: @WHO, @WHO_Europe, @WHOSEARO, @pahowho, @HOWPRO, @WHOAFRO, @WHOEMRO, @DrTedros, @DrMariaNeira]

5. @WHO: Children are uniquely vulnerable to the damaging health effects of air pollution. See how at [link to be added] #PrescribingCleanAir
   Click here to access the infographic
   [possible tags: @WHO, @WHO_Europe, @WHOSEARO, @pahowho, @HOWPRO, @WHOAFRO, @WHOEMRO, @DrTedros, @DrMariaNeira]

7. @WHO: new report finds that of the total number of deaths attributable to the air pollution worldwide in 2016 - 9% of these were in children. See what health professional can do to combat dirty air #PrescribingCleanAir

8. @WHO: Exposure to air pollution contributes to more than half of all deaths from acute lower respiratory infection in children under 5 years in lower and middle-income
countries, making it one of the leading killers of children worldwide
#PrescribingCleanAir #BeatAirPollution

9. @WHO: Breathing dirty air can be a life sentence to illness #PrescribingCleanAir
#BeatAirPollution

Click her to access the infographic

[possible tags: @WHO, @WHO_Europe, @WHOSEARO, @pahowho, @WHOWPRO, @WHOAFRO, @WHOEMRO, @DrTedros, @DrMariaNeira]

10. @WHO The evidence is clear: air pollution has a devastating impact on children’s
health [link to be added]

To access WHO Health and Climate Infographics in English click here.
To access WHO Health and Climate Infographics in French click here.

4. Sources of Air Pollution – key messages & tweets

- Ambient Air Pollution (AAP)
  - AAP caused about 4.2 million premature deaths in 2016 (10)
  - It is estimated that, in 2016, 286 000 children under 15 years of age died
    from exposure to AAP.
  - Ambient air is polluted from many sources, both anthropogenic and
    natural, which differ in urban and rural areas.
  - In urban settings, the main sources are fossil fuel combustion for energy
    production, transport, residential cooking, heating and waste
    incineration.
  - Rural communities in LMICs are exposed to pollution emitted primarily
    from household burning of kerosene, biomass and coal for cooking,
    heating and lighting, from agricultural waste incineration and from
    certain agro-forestry activities
  - Addressing AAP is a high priority for governments and multilateral
    agencies around the world.
  - Many proven solutions are available to reduce emissions of dangerous
    pollutants in cities, including cleaner transport, cleaner cooking and
    heating fuels and technologies, energy-efficient housing and urban
    planning, low- or zero-emission power generation, cleaner, safer
    industrial technologies and better municipal waste management (11).

- Household Air Pollution (HAP)
  - HAP – the single largest environmental health risk factor worldwide – is
    produced mainly by incomplete combustion of polluting fuels for
    cooking, heating and lighting (6,11).
  - In 2016, WHO estimated that about three billion people – 41% of the
    world’s population – used polluting fuels mainly for cooking, most of
    them in LMICs (6,11). This number has remained largely unchanged for
    the past three decades.
  - The damage to health caused by such widespread dependence on
    polluting energy sources is severe and extensive: in 2016, HAP from
    solid fuel use resulted in an estimated 3.8 million premature deaths.
  - This toll is equivalent to 6.7% of global mortality, greater than that from
    malaria, tuberculosis and HIV/AIDS combined. Of these deaths, 403 000
    were among children under 5 years of age (6,8).
  - HAP is also an important source of AAP, as residential cooking
contributes as much as 12% of global PM2.5 to ambient air (11).

- In many parts of the world, children are especially vulnerable to HAP because they spend a great deal of time in the home and with their mothers as they tend the hearth.
- Smoke emitted from burning biomass, coal, charcoal and kerosene to meet the basic needs of cooking, heating and lighting is the primary contributor to HAP.
- Burning these fuels produces complex mixtures of contaminant. In dwellings with poor ventilation, emissions of fine particulate matter and other pollutants from stoves can reach 100 times the maximum exposure level recommended by WHO (11).
- Achieving universal access to clean, safe household energy is a high priority on the global sustainable development agenda, reflected in SDG 7: “ensure access to affordable, reliable, sustainable and modern energy for all”.

- **Social determinants of air pollution**
  - Poverty is strongly correlated with exposure to air pollution.
  - Children in LMICs and in low-income communities within HICs disproportionately suffer the effects of air pollution.
  - Poverty causes people to rely on polluting fuels for their basic needs and compounds the health risks associated with their use.
  - Poverty also limits people’s capacity to improve the environment in which they raise their children.
  - Air pollution is often a chronic problem in poor-quality housing and temporary settlements.
  - The exposure of people living in refugee camps can be particularly high, as they are forced to scavenge for nearby wood and other fuels or to rely on kerosene stoves for heating and cooking.
  - Women and girls are the primary users and procurers of household energy around the world.
  - Dependence on the energy sources that produce the most HAP (e.g. wood and other solid fuels) also poses other important health and safety risks. In many LMICs, children have the daily or weekly task of fuel collection, often walking long distances with heavy loads of wood and other fuels.
  - A WHO analysis of survey data from 16 African countries in 2016 found that girls in households that used polluting fuels spent about 18 hours each week collecting wood or water, whereas girls in households in which clean fuels were used primarily spent 5 hours each week in those tasks (6,11). This work robs children of time spent for playing and studying. It also leads to musculoskeletal disorders and can expose children, particularly girls, to higher risk of violent attack, rape or injury as they venture far from their household (11, 4).

**TWEETS ON SOURCES OF AIR POLLUTION**

1. Outdoor air pollution caused around 4.2 million premature deaths in 2016. Of these, 286,000 were among children under 15 years of age

2. Household Air Pollution is the single largest environmental health risk factor worldwide and is produced mainly by incomplete combustion of polluting fuels for cooking, heating and lighting. We need safer homes for all our children
3. In 2016, WHO estimated that about three billion people – 41% of the world’s population – used polluting fuels mainly for cooking, most of them in low and middle-income countries (6,11).

4. In 2016, household air pollution from solid fuel use resulted in an estimated 3.8 million premature deaths. Of these deaths, 403,000 were among children under 5 years of age.

5. Poverty is strongly correlated with exposure to air pollution and children in low and middle-income countries and in low-income communities within high income countries disproportionately suffer the effects.

5. **Recommended Actions for Health Professionals – key messages & tweets**

- Health professionals are trusted sources of information and guidance.
- They play an important role not only in treating ill health caused by air pollution but also in educating families and patients about risks and solutions and communicating with the broader public and decision-makers.
- They must increase their role in the management of childhood exposure to air pollution through improved methods of care and prevention and collective action.
- Health professionals can provide evidence to shape public health policy and advocate for effective policies to reduce children’s exposure to air pollution.
- The broader health sector must become more engaged in preparing a comprehensive approach to addressing this crisis.

**TWEETS ON AIR POLLUTION SOLUTIONS**

1. @WHO Informed action by health professional can help reduce the exposure of children to air pollution and save lives. See how at [link to be added] #PrescribingCleanAir

2. Everyone has a role to play, at every level in cleaning up dirty air for children across the world [link to be added] #PrescribingCleanAir

3. Health professionals must come together to address this threat as an emergency, through collective, coordinated efforts. #PrescribingCleanAir

4. For the millions of children exposed to polluted air every day, there is little time to waste #PrescribingCleanAir

**6. BreatheLife campaign - Health & climate co-benefits of reducing air pollution – key messages and tweets**
Health & climate leaders must lead on combatting the threat of air pollution, a driver of climate change and killer of nearly 600,000 children annually.

Reducing emissions of greenhouse gases through better transport, food and energy-use choices, such clean cookstove can result in improved health, particularly through reduced air pollution.

Mayors and urban leaders are invited to join cities like #London, #Santiago, #Washington DC in the www.breathelife2030.org campaign to protect children by reducing air pollution to WHO air quality levels.

WHO, UN Environment & the Climate and Clean Air Coalition invite you to join the #BreatheLife campaign to stop air pollution deaths and protect our cities’ children www.breathelife2030.org

Breathelife2030.org is mobilizing health and climate sectors to work together to protect children by tackling air pollution and climate pollutants.

It is estimated that, by 2030, climate change will be responsible for 250,000 deaths each year.

Many of the same pollutants that threaten health, such as black carbon and ozone are also important agents of climate change.

Interventions that reduce carbon emissions are likely to result in benefits for both children’s health and the climate.

TWEETS ON AIR POLLUTION & CO-BENEFITS

Note: All MULTILINGUAL BreatheLife infographics can be found in all six UN languages at this link

Hashtags and handles:
@WHO, @WHO_Europe, @COP23, @DrTedros, @DrMariaNeira, @CCAC
#BreatheLife #Beatpollution #PrescribingCleanAir

1. @WHO @DrTedros calls on Mayors and urban leaders to join cities like #London, #Santiago, #Washington DC in the www.breathelife2030.org campaign to protect children’s lives and reduce air pollution to WHO air quality levels.
   Click here to access the infographic

2. @WHO @DrMariaNeira calls on Mayors and urban leaders to join cities like #London, #Santiago, #Washington DC in the www.breathelife2030.org to protect the health of children and reduce air pollution to WHO air quality levels

3. Over 93% of children worldwide breathe polluted air. Join @WHO in the Breathelife2030.org campaign to help #BreatheLife back into our children’s cities
   Click here to access the infographic

4. 93% of children breathe unsafe air. Protect children by reducing air pollution to safe levels. Ask your city to act: bit.ly/BLActNow1
Click here to access the infographic

5. Let your leaders know that reducing #ai4pollution saves children's lives and can help get us on track to meet the #ParisAgreement by 2030: bit.ly/BlActNow1

6. #AirPollution kills nearly 600,000 children annually. Help tackle this silent killer at: BreatheLife2030.org #PrescribingCleanAir

7. #AirPollution causes more than 50% of deaths from acute lower respiratory infections in children under 5. BreatheLife back into our children's cities at BreatheLife2030.org #PrescribingCleanAir

8. Air pollution is the invisible killer causing nearly 600,000 deaths in children each year. Help #BeatAirPollution at BreatheLife2030.org

Click here to access the infographic

9. 9 out of 10 children live in areas that fail to meet WHO air quality guideline goals. Join the www.breathelife2030.org campaign to improve urban air quality for children everywhere #PrescribingCleanAir

Click here to access the infographic