



World Health
Organization

Household air pollution

AIDE-MEMOIRE

For enhanced country action to improve indoor air quality



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Around a third of the global population is exposed to harmful household air pollution by using open fires or inefficient cook stoves with solid fuels (wood, animal dung, charcoal, crop waste, coal) and kerosene. Most of this exposure occurs in rural areas in low- and middle-income countries. Women and children often bear the greatest health and social burdens from using polluting fuels and technologies in homes.

Household air pollution is responsible for more than 3 million deaths each year from stroke, ischaemic heart disease, chronic obstructive pulmonary disease (COPD), and lung cancer.

Household air pollutants emitted from using inefficient stoves and polluting fuels for cooking, heating, and lighting significantly contribute to climate change and ambient air pollution. It is essential to transition to clean fuels and technologies for protecting health, the climate, and the environment.

WHO support to countries

- Provides national data on household air pollution exposure and burden of diseases and report on the Sustainable Development Goals (SDGs).
- Supports the implementation of WHO Guidelines for Indoor Air Quality: Household Fuel Combustion.
- Provides the Clean Household Energy Solutions Toolkit (CHEST) to help countries identify key stakeholders, and develop, implement & monitor policies addressing household energy for better health.
- Convenes stakeholders working on health, energy, environment and related issues to enhance cooperation, share knowledge, and drive evidence-based action to tackle household air pollution through clean energy access.
- Provides a catalogue of available interventions to reduce household air pollution.
- Supports governments in estimating the costs and co-benefits (health, gender equity, environment, and climate) of reducing household air pollution and implementing household energy interventions.
- Provides awareness-raising and advocacy materials on the risks of household air pollution.
- Builds capacity at the country and regional levels through direct consultations and workshops on household energy, household air pollution, and health.

✓ Checklist

Situational assessment

- ☐ Monitoring system on household fuels and technologies in place
- ☐ National data on household fuel and technology use publicly accessible

Policies & actions

- ☐ Health benefits of fuels and technologies assessed and prioritized in policy and programmatic decision-making for household energy and air quality management
- ☐ Intersectoral cooperation initiated to reduce household air pollution
- ☐ Health-based national performance and safety standards for household fuels and technologies developed and used
- ☐ Supply chain for affordable clean fuels and technologies in place
- ☐ Implementation of the WHO Clean Household Energy Solutions Toolkit (CHEST) initiated

Awareness raising & capacity building

- ☐ Use of clean fuels and technologies promoted
- ☐ Information and guidance on health effects from household air pollution and available clean solutions disseminated
- ☐ Household air pollution incorporated in medical and other health professional curricula

Key elements for country action

Governance

- The health sector needs to cooperate across sectors, such as industry, energy, environment and housing/infrastructure, to tackle household air pollution.
- Ensure health gains from reduction of household air pollution are considered in all relevant policies outside the health sector.
- Increase awareness about the health benefits of household air pollution reduction among decision makers and the public.

Clean fuels and technologies

- Monitor household fuel and technology use.
- Implement a national or local policy on household energy, including the goal to transition to clean household fuels and technologies.
- Develop health-based national performance and safety standards for household fuels and technologies.
- Support implementation and scale-up of clean cooking, space heating and lighting fuels and technologies that meet the emission rate targets based on the WHO Guidelines for indoor air quality.
- Discourage the use of polluting fuels, such as wood, crop waste, charcoal, coal and dung, and kerosene for cooking, heating and lighting.
- Increase the accessibility and affordability of clean fuels and technologies, e.g. through regulations and financial incentives.

Housing/Infrastructure

- Improve energy efficiency of buildings and household appliances.
- Incorporate adequate ventilation in buildings and homes.
- Increase the availability of clean, reliable, affordable, and renewable energy sources for households.

Awareness raising and capacity building

- Focus on the promotion of the exclusive use of clean* household fuels and technologies, rather than on improved biomass stoves.
- Establish and implement labelling schemes for cooking devices and fuels with information on emissions and safety for health.
- Provide information to the public on health impacts and measures to reduce exposure to household air pollution and the benefits of clean household energy solutions.
- Train health and other sectors in the health effects of household air pollution and interventions to reduce it.

*Defining clean fuels and technologies:
<https://www.who.int/tools/clean-household-energy-solutions-toolkit/module-7-defining-clean>

Additional information:



Main resources:

- <https://www.who.int/teams/environment-climate-change-and-health/air-quality-energy-and-health/sectoral-interventions/household-air-pollution>
- [WHO Guidelines for indoor air quality: Household fuel combustion](#)
- <https://www.who.int/health-topics/air-pollution>
- <https://www.who.int/news-room/fact-sheets/detail/household-air-pollution-and-health>
- <https://www.who.int/tools/clean-household-energy-solutions-toolkit>
- [Compendium of WHO and other UN guidance on health and environment](#)

Please note: This aide mémoire provides summary information on household air pollution only. More detail is provided in various other materials. In addition, there are numerous other forms of indoor air pollution, including from radon, tobacco smoke, formaldehyde and mould. These require other actions and interventions in addition to those listed here.