South Africa

Air pollution is the 8th leading risk factor for premature death, accounting for nearly 5% of deaths — more than 23,000 — in South Africa in 2017 alone.

Air pollution exposures, including exposure to outdoor particulate matter (PM$_{2.5}$), and household air pollution (HAP), have been linked to increased hospitalizations, disability, and early death from respiratory diseases, heart disease, stroke, lung cancer, and diabetes, as well as communicable diseases like pneumonia. Exposure to outdoor ozone is also linked to COPD.

More than 23,000 deaths due to air pollution in 2017

11 months' loss in life expectancy at birth due to air pollution exposure

25 µg/m$^3$ population-weighted average PM$_{2.5}$ concentration

11% of the population uses solid fuels

Key Facts

- Air pollution (total) is the 8th leading risk factor in South Africa in 2017, after risk factors such as unsafe sex, high blood pressure, and dietary risks. Considered separately, outdoor air pollution is ranked as the 7th leading risk factor. HAP is not among the top 20 risk factors.
- The entire South African population lives in areas with PM$_{2.5}$ concentrations* above the WHO Air Quality Guideline for healthy air (10 µg/m$^3$). Further, less than 1% of the population lives in areas above the WHO’s least-stringent target of 35 µg/m$^3$.
- In 2017, there were 18,300 deaths attributable to exposure to outdoor PM$_{2.5}$, 4,370 deaths to HAP, and 1,110 to ozone.
- Exposure to outdoor PM accounted for a loss of nearly 9 months of life expectancy, and exposure to HAP accounted for a loss of nearly 3 months.


* Please note that PM$_{2.5}$ concentrations reported here are estimated using satellite data, ground air quality monitoring data, and chemical transport models. There can be uncertainty in these estimates in regions where ground monitoring data are not available compared with regions where more ground monitoring data are available. Our best estimate of the concentration for South Africa is 25 µg/m$^3$, but given the lack of sufficient ground monitoring, it may range from 20 µg/m$^3$– 31 µg/m$^3$.