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Covid-19: Pandemic waste threatens human and environmental health, says WHO

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The World Health Organization has called for urgent improvements in waste management systems in light of the tens of thousands of tonnes of extra medical waste produced in response to the covid-19 pandemic.

It has warned in a report that the massive amount of covid-19 related healthcare waste has put tremendous strain on waste management systems around the world, threatening human and environmental health.¹

The report estimates that one and a half billion units of personal protective equipment (PPE), weighing 87 000 tonnes, were procured between March 2020 and November 2021 and shipped to countries around the world through a joint UN emergency initiative. Most of this equipment is expected to end up as waste. This only represents a small fraction of the total global waste problem, however, as it does not include PPE bought outside the initiative or waste generated by the public, such as disposable face masks.

Over 140 million covid-19 test kits have been shipped globally, generating 2600 tonnes of non-infectious waste and 731 000 litres of chemical waste, the report said. In addition, over eight billion doses of vaccine have been administered, producing 144 000 tonnes of additional waste in the form of syringes, needles, and safety boxes.

One in three healthcare facilities globally do not safely manage healthcare waste, let alone the additional covid-19 load, the report said. This rises to 60% in the least developed countries. As a result, healthcare workers are potentially exposed to needle stick injuries, burns, and pathogens. Communities may also be impacted if they live near poorly managed landfills and are exposed to contaminated air from burning waste, poor water quality, or disease carrying pests.

Maria Neira, director of environment, climate change, and health at WHO said, "Significant change at all levels, from the global to the hospital floor, in how we manage the healthcare waste stream is a basic requirement of climate smart healthcare systems."

The report said that many facilities and countries mistakenly classified 100% of covid-19 healthcare waste as hazardous, whereas WHO has stated that extra or special procedures beyond normal classification into infectious and non-infectious are not needed for waste from patients with covid-19.

The report makes several recommendations, including reducing the amount of unnecessary PPE through safe and rational use; using smaller quantities of, and more sustainable, packaging; developing reusable and easily disinfected PPE; and making PPE with a greater proportion of renewable

or recyclable materials. It also suggests using technologies such as autoclaves as an alternative to burning, and investing in local production of PPE and "just in time" shipments.

Ruth Stringer, science and policy coordinator at Health Care Without Harm, said, "In the face of covid-19, sustainable healthcare waste management is more important than ever to protect communities, health workers, and the planet, and prevent pollution."

The WHO report comes as it emerged that almost five billion items of PPE, worth £2.7bn, will be wasted in the UK as they are no longer needed or are not fit for use.

The extent of the wastage was revealed in a written parliamentary answer by the health minister Edward Argar. He said the government had ordered more than 36.4 billion items of PPE, of which 3.4 billion units are currently identified as potential excess stock. He also said that 6.96 billion items "are not currently provided to frontline services" and "of these, 1.2 billion are deemed not to be fit for use."

Wendy Chamberlain, the Liberal Democrat MP who tabled the parliamentary question, said, "The government has misspent billions of pounds of public money on vital PPE for staff that is either inadequate or will never be used. This is carelessness of the highest magnitude."

1 WHO. Global analysis of health care waste in the context of covid-19: status, impacts and recommendation. 1 February 2022. www.who.int/publications/item/9789240039612.

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