



Children and digital dumpsites

E-waste exposure and
child health

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**World Health
Organization**

Children and digital dumpsites: e-waste exposure and child health

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<https://apps.who.int/iris/bitstream/handle/10665/341696/9789240024106-eng.pdf>

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Preface

The burgeoning global market in electronic and electrical devices, combined with shorter device life expectancies, is fuelling an unprecedented health crisis for children in the developing world – exposing them to dangerous chemicals and air pollutants at home, in their communities, and in places where they often work illegally in exploitative and hazardous conditions.

Millions of young children and adolescents, as well as women of childbearing age, work in the growing e-waste dumps of Africa, Asia and Latin America, as well as in some developed economies of Europe and elsewhere, extracting precious metals such as gold from computer chips and copper from cables by burning the devices or using toxic chemical baths. In the process they are exposed to dangerous chemicals such as mercury, lead, dioxins and flame retardants, and breathe air polluted with toxic particles.

In 2019, some 53.6 million tonnes of electronic and electrical waste (e-waste) were generated worldwide, a 21% increase over the past five years. Global e-waste generation is projected to grow to 74.7 million tonnes by 2030.

By 2030, global employment in the waste management sector – which employs some 64 million people today – is projected to increase by some 70%, or another 45 million jobs. Since e-waste is the world's fastest growing waste stream, increasing three times faster than the world's population, many of these jobs, formal or informal, will be in e-waste processing.

E-waste typically includes discarded electronic devices such as computers, televisions, mobile phones, tablets and other video and voice recorders, as well as electrical appliances, both heavy and light.

While large household electrical appliances, such as washing machines and refrigerators, used to be called “durable goods” as they were built to last, the reverse is now often the case. Both large appliances and small devices are often designed in ways that make repairs difficult, and instead encourage frequent device replacement. Yet, it is in the smallest devices that the greatest levels of dangers may lurk, in the form of toxic chemicals such as mercury, polychlorinated biphenyls (PCBs), and lead.

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