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Expanding safe waste management to public health systems

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 PlumX Metrics

Media focus on plastic waste, urban air pollution, and the way it affects our environment, health, and communities has been increasing. Environmental pollution has been recognised as a growing public health problem for many years, but the size of the problem and the urgency of a solution have risen only recently to a higher level of public consciousness. Although the media are effective mobilisers for these issues, they do not articulate who is responsible for leading or assisting solutions. This may be because we are all individually, communally and globally responsible. We choose to advance by new technologies that consume materials and energy, but we are reluctant to address the risks associated with the resulting waste.

Health services are obliged to treat and care for illnesses caused by environmental pollution. However, few countries act to prevent, control, or eliminate the pollution; low-income and middle-income countries are particularly affected because they lack policies, standard operating procedures, equipment, and resources to maintain a safe and effective waste management infrastructure. Isolated efforts have been made in specific public health programmes. For example, between 2002 and 2006 and under the auspices of the Children's Vaccine Program, PATH and WHO coordinated waste management development activities in east and west Africa, India, and southeast Asia as an informal consortium with UNICEF. They addressed three key issues: on-site, small-scale incineration was adopted for dry sharps waste

at rural or dispersed health facilities, replacing the common practice of burial or open burning of syringes; syringe-safe incineration boxes and needle cutters were adopted to prevent reuse and protect against needlestick injuries during waste handling; and auto-disable syringes were developed and introduced to prevent reuse of infectious materials and reduce risk to the users.

This initiative stimulated routine and mass immunisation activities to collect and destroy sharps waste in participating countries. However, the initiative was neither sustained nor expanded to the whole public health system once funding ended. With increased focus on

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agencies, multilateral organisations, and donors. A sound foundation has already been laid by immunisation services, but much remains to be done to reduce the waste footprint of public health services in a responsible and sustainable way.

- Panel

Key milestones for waste management

- Establishing leadership, commitment, and country planning, to link waste management budgeting to medical supply services that generate waste and mobilise financing that establishes and maintains waste management infrastructure
- Linking regulatory and procurement mechanisms that control waste choices, to reduce the volume of product presentation and packaging and avoid polluting materials
- Creating an infrastructure of public health waste management, to collect, transport, recycle, or incinerate at high temperature outside urban areas, and install effective on-site destruction of waste at remote health facilities
- Monitoring supply, consumption, and destruction of syringe waste

I declare no competing interests.

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