Technologies for Injection Safety

Health need

Each year, more than 16 billion injections are administered worldwide. About 90 percent of these occur in the therapeutic sectors, and an estimated 40 percent are administered with reused, unsterilized injection equipment. These unsafe injection practices, coupled with high rates of needlestick injuries among health workers, contribute to an estimated 21 million hepatitis B, 2 million hepatitis C, and 260,000 HIV infections annually—causing 1.3 million early deaths, a loss of 26 million years of life, and $535 million in direct medical costs per annum.

Technology solution

In developing countries, immunization and some therapeutic programs have been proactive in introducing technologies and practices for injection safety, including autodisable (reuse prevention) syringes, sharps disposal boxes, and needle-removal devices and systems. Although a wider variety of syringe types are used in therapeutic programs, the sector has generally viewed autodisable syringes as too expensive for broad introduction. However, with prices now in line with standard disposable syringes, opportunities to develop and market less-expensive options in this category are growing, better enabling developing-country use.

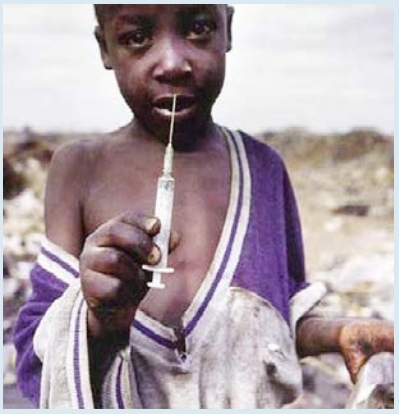
Current status and results

In 2013, the World Health Organization (WHO) Patient Safety Programme and the Safe Injection Global Network, which includes PATH and other stakeholders, launched a new multiyear initiative promoting safe injection as well as safety-engineered injection devices, especially for therapeutic purposes.

With support from the US Centers for Disease Control and Prevention through the President's Emergency Plan for AIDS Relief (PEPFAR), PATH is collaborating closely with the Kenya Ministry of Health and other PEPFAR-funded programs in partnership with ETLog Health to strengthen Kenya's health care waste management system by integrating medical waste disposal and injection safety practices, ensuring an adequate supply of commodities for safe disposal of medical waste, and decreasing the use of unnecessary injections in all health programs.

PATH continues to maintain and update an online resource page for country programs working to introduce and sustain health care waste management tools, practices, and systems. For more information on our online resource page, please contact us at vxpharmatech@path.org.

In 2009, building from work advanced by PATH and our partners in this technology category, WHO published product specifications and a test protocol for needle-removers as part of their Performance, Quality, and Safety program. This established a standard for WHO prequalification and has helped to facilitate the ongoing procurement of quality needle remover devices by the United Nations Children's Fund and other international and national organizations.



Robert Maletta

Sharps waste is dangerous to the community.

"Recognizing the importance of needle-removal to improve the safety of sharps waste management, it is recommended that the process of assessment and introduction be accelerated in African countries."

GAVI/Implementation task force workshop on the management of biomedical waste, Senegal, 2003.

Availability

For more information regarding this project, contact Nancy Muller at nmuller@path.org.

Donor support

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