

# Strengthening immunization waste management systems in Myanmar

Managing waste safely and appropriately to minimize risks of infection and injury

## Immunization waste and its health risks

While it's a cause of celebration that new vaccines are being introduced into routine immunization in Myanmar, the disposal of used syringes and needles must also be handled safely. Improper health care waste management can increase the likelihood of accidents among health workers and waste handlers. An infectious needle can carry a risk of hepatitis B, hepatitis C, and HIV infection.<sup>1</sup> In Myanmar, proper disposal practices are not always observed, which, together with unsafe practices such as scavenging in waste disposal sites, can lead to accidents and health hazards.<sup>2</sup>

## Needle cutters: An innovation to “defang” syringes

To avoid health risks from needle stick injuries, needle removal is an affordable, accessible and optimal option in settings where safe onsite disposal for sharps is lacking. Manual needle removers, known as needle cutters, can be used by health workers to “defang” the



A needle cutter separates sharps and syringes in a safe way. Photo: Minzayar Oo

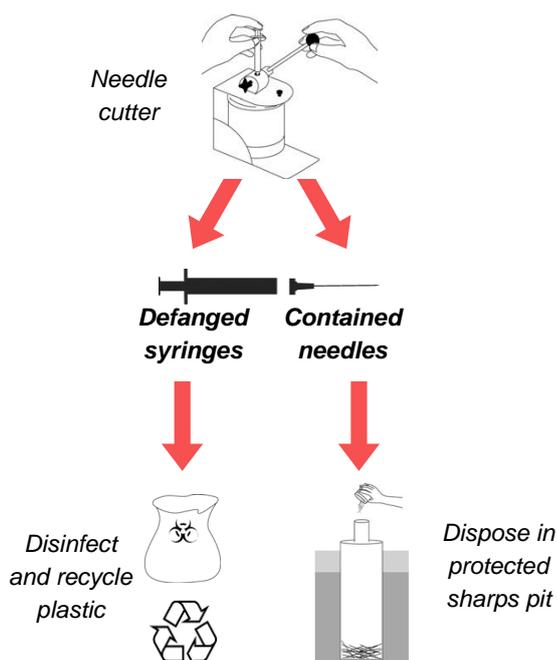
syringe, thereby separating the needle from the syringe body. This allows for isolation of potentially infectious sharps and their disposal in protected sharps pits. The plastic syringe can then be disinfected and recycled in an environmentally friendly and sustainable manner. The disabled syringe also prevents improper reuse of injection equipment.

## Strengthening of immunization waste management system in Myanmar

Drawing on its global experience to introduce needle cutters in India, Senegal, Uganda, and Vietnam, PATH is supporting the Myanmar Ministry of Health and Sports (MOHS), particularly the Central Expanded Programme on Immunization and Occupational and Environmental Health Division, to design, implement, monitor, and evaluate health waste management models. Funded by UNICEF, PATH is piloting context-appropriate waste management systems in two townships—Pindaya, Shan State, and Hmawbi, Yangon Region.

### Landscape analysis and policy advocacy

To kick off the project, PATH conducted a landscape



<sup>1</sup> World Health Organization (WHO). Health-care waste [Fact Sheet No. 253]. Geneva: WHO; 2011.

<sup>2</sup> Myanmar Myanmar Effective Vaccine Management (EVM) Assessment, 2–26 May 2015: Findings and recommendations of the assessment team.



Examples of different designs of needle cutters.

analysis of available needle disabling and disposal technologies, plastic recycling businesses, and needle pit designs in Myanmar. PATH also involved itself at the policy level by developing standard operating procedures (SOP) for sharps waste management and setting up a national technical working group and township steering committees for government and public-sector stewardship.

### Support of waste management infrastructure

In the two pilot townships, PATH helped to construct needle pits—protected disposal sites for needles—and storage units—safe and sheltered spaces for disinfected materials, defanged syringes, and other plastic materials to be recycled. PATH also procured color-coded waste bins and needle and hub cutters for all health staff.

### Training of health staff on risks of health care waste

To support midwives and health staff in their work, PATH developed a training package, including guidelines, training plans and materials, and job aids. It ran training sessions for all basic health staff at respective pilot townships. The trainings focused on the roles and responsibilities of basic health staff on health care waste management and the risks associated with sharps waste, as well as demonstrated the usage of needle cutters and needle pits.

Following the training, PATH is working to evaluate and monitor health care waste management practices and

document experiences of basic health staff in using needle cutters, needle pits, and storage units in order to support the rollout of the health care waste management system in target townships. Based on the monitoring visits, all health facilities are currently using needle cutters and adhering to the health care waste management system in the two townships.



Health staff practice disposing collected needles into the sharps pit. Photo: Minzayar Oo

### Preparation for nationwide do-no-harm health care waste management systems

Moving forward, the project will be scaled up from a successful pilot in two townships to a nationwide project with support from PATH.

Based on the model and materials developed by PATH, the MOHS will procure needle cutters and build needle pits in 330 townships, as well as provide training for all basic health staff. Needle cutters will also be used in future vaccination campaigns. The SOP developed by PATH will be integrated into national-level health care waste management SOP and guidelines.

Through this learning experience in immunization waste management, we are helping Myanmar take an important step toward a safer, environmentally friendly, and comprehensive approach to immunization service delivery.

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