

# Health care waste management in private health facilities: Initiatives from Myanmar



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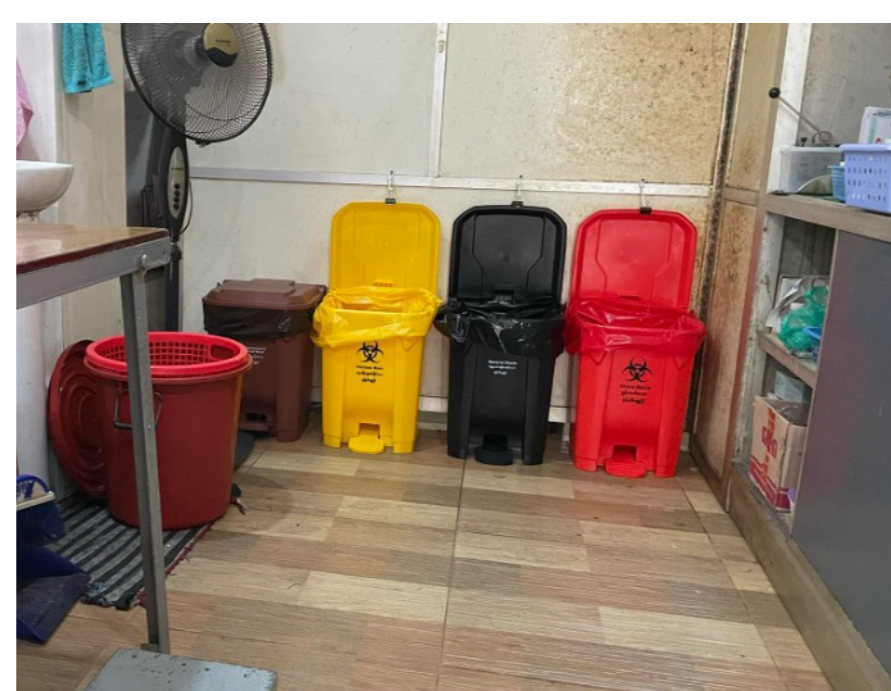
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## Introduction

In most health care facilities, syringes are the device of choice for administering vaccines as they are intended for single use, limiting infection transmission owing to contaminated needles. These devices are commonly used in routine immunization programs as well as during mass campaigns such as the recent COVID-19 pandemic. As per reports, an infant in Myanmar receives at least 13 shots before they attain the age of one year, and about 20 million needles and syringes are used for administering the Human Papilloma Vaccine to pregnant women. While these vaccines add to health benefits for the people of Myanmar, the responsible disposal of used syringes and needles, at times, becomes a huge challenge. Apart from the risk of infection transmission, improper disposal of these devices can lead to accidents among health workers and waste handlers.

Given the challenges, PATH collaborated with its partners to assess the health care waste generated from private health facilities in Myanmar and recommended potential solutions to address the HCWM needs of private health facilities. In this project, health care waste specifically generated from COVID-19-related equipments, such as Personal Protective Equipment (PPE) kits and syringes used for COVID-19 vaccination, were taken into consideration.



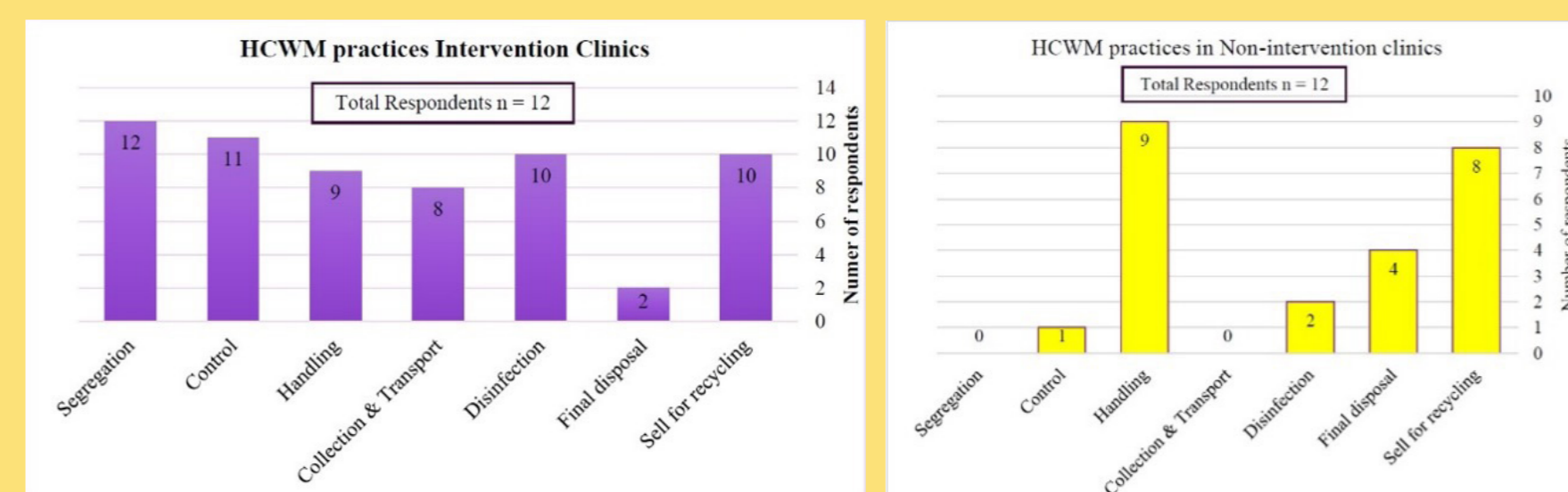
## Methodology

In June 2022, PATH, along with its partners, including the National Committee convened by the United Nations Children's Fund (UNICEF), the General Private providers (GPs), collaborated to review the national HCWM guidelines and assess HCWM practices in private health facilities in Myanmar. As part of the initiative, the HCWM guidelines were updated, Standard Operating Procedures (SOP) were developed, and a training curriculum tailored for private health care professionals was developed. Over a period of 6-12 months, the project team undertook assessment and monitoring visits for implementing the guidelines and SOPs in 157 health facilities, 50 GPs, and 135 private practices in 32 townships, which ended in November 2023.

## Results and discussion

The results suggest that sharps waste segregation was widely practiced, which involved using a needle.

The assessment visits of the private health facilities show that syringes and sharps segregation is practiced in almost all facilities and involve using a needle cutter for removing needles from the plastic case of the syringe. Besides this, the needles of these syringes are also disinfected and buried in pits, and the plastic parts of the syringes are shredded and sold to social enterprises. These are not incinerated, thereby reducing air pollution. Additionally, the used PPE kits and masks are disinfected and recycled for making bricks or construction materials. The finding also highlighted the need for customized segregation systems depending on facilities. Other challenges highlighted among private facilities are lack of space for needle pits, needle cutter not useful in case of mobile sample collectors and there is a preference for biodegradable bin liners. It was also observed that the needle exchange program showed a high return rate of used syringes.



## Conclusion

Based on the positive findings of the assessment, PATH and partners are exploring investment options to expand safe and economically feasible HCWM methods and sustainable recycling models that can work across facilities and types of health care waste.

### Effective Health Care Waste Management Practices

Segregation (ခွဲခြားထားခြင်း)	
Sharp containment by needle cutter (ထိန်းချုပ်ကန့်သတ်ခြင်း)	
Handling & Storage (ကိုင်တွယ်ခြင်းနှင့် သိုလှောင်ခြင်း)	
Collection & Transportation (သယ်ယူပို့ဆောင်ခြင်း)	
Treatment (Disinfection) (ပိုးသတ်သန့်ရှင်းခြင်း သို့မဟုတ်ဖျက်ဆီးခြင်း)	
Final Disposal (strongly encourage recycling) (စွန့်ပစ်ခြင်း)	