

Health Care Waste Management in Akwa Ibom State

Improper management of waste generated in health facilities can have direct health impacts on the community, health workers, and on the environment. In addition, environment polluted by inadequate treatment of waste can cause indirect health effects to the community. Improved health care waste management (HCWM) systems lead to higher quality health services as well as economic benefits via the economies of scale and job creation.

Strengths

National policy: The National HCWM Policy (2013) for the domestication of an Akwa Ibom HCWM policy serves as the framework for development of innovative solutions to reduce risks of improper handling and disposal of health care waste (HCW).

Commitment: Stakeholders such as the Ministry of Health and Ministry of Environment have shown strong commitment to improving health workers' and communities' safety and environmental conditions in Akwa Ibom State. The current Commissioner for Health is highly committed to improving the HCWM process in the states with his previous clinical exposure in an international quality control company.

Trainers: The Medical and Dental Consultants Association of Nigeria approved to accredit continuous medical education (CME) points to participants in the AIDSFree Nigeria Training of Trainers (TOT) program.

Trained health workers: In 2016, AIDSFree trained **1,719** health workers and **274** waste handlers in HCWM knowledge and skills in five local government areas (LGAs).

Supply chain strengthening: AIDSFree provided seed stock to 39 facilities in Akwa Ibom trained on logistics for HCWM including 24,500 bin liners; 1250 pieces of personal protective equipment (PPE)—including boots, gloves, goggles, aprons, and facemasks—300 waste bins; and 2000 safety boxes.

Opportunities & Rationale for Improved HCWM Systems

- Public-private partnerships (PPPs) for HCWM can lead to improved quality of health facility services with **private sector investment** reducing public sector burden and can create job opportunities for residents.



- Health worker segregation of waste creates **opportunity for profitable municipal waste recycling** of non-medical waste including glass, metals, and plastic.
- Smart investment of funds into coordinated HCWM systems at the state level can **reduce the overall cost of waste management**.
- **Waste treatment equipment:** In Akwa Ibom state, there are three high-temperature incinerators—University of Uyo Teaching Hospital, Ibom Specialist Hospital, and IDH Ikot Ekpene—this equipment could be utilized for multiple health facilities through a transportation network.
- Coordination of HCWM activities at the state level can lead to **economies of scale**—procurement of HCWM commodities in quantity creates significant cost savings compared to LGA-level or facility-level procurement.
- Improved HCWM reduces the risk of health worker injury due to needlestick injuries/exposure to blood and body fluids, **reducing costs** of post-exposure prophylaxis (PEP) and the cost of training new health workers due to attrition/illness.
- **Reduced environmental degradation** is possible through a policy environment that supports, monitors, and enforces proper HCWM.
- Safe working environment **attracts high-quality personnel** to the public sector and reduces “brain drain” of health care workers to the west.
- **Community perception** of public sector health facilities as providing high-quality health services increases citizen satisfaction and uptake of services, which can lead to a reduction in disease burden.

Key Challenges—Assessment Results

- **Needlestick injuries** are experienced by virtually all health care workers in Akwa Ibom—largely among clinical providers and environmental health workers.
- Across all professional cadres, **knowledge of waste color coding** was generally poor, while only 32 percent of facilities assessed used color-coded bin liners for waste segregation.
- Information from officers-in-charge (OICs) indicated that tertiary health facilities as well as 60 percent of secondary health facilities and 36.4 percent of primary health care facilities have designated areas for **temporary storage of HCW**. Only 28.2 percent of the facilities reported storing hazardous and non-hazardous waste separately.
- Open burning in a pit or enclosure was the most common on-site **HCW disposal** method (51.3%). Unsafe open burning on the ground was observed in 24.2 percent of PHCs and 40 percent of secondary facilities. Dumping in an unprotected pit was found in one PHC facility (3%), and dumping in an unsupervised area in one PHC facility (3%).

- Basic infection prevention and control (IPC) measures are lacking—for example, only 20.5 percent of facilities in Akwa Ibom have **handwashing** facilities with soap near toilets for staff/clients.
- **Stockouts** are experienced in 44.7 percent of facilities for needlestick prevention syringes (largely at primary and secondary facilities), in 32 percent of facilities for RUP; however, there were no stockouts during the previous six months of standard disposable syringes in any focal health facility surveyed.

Threats

- **Need for state-specific HCWM policy:** While the national HCWM policy serves as a framework, an Akwa Ibom-specific policy is crucial and is under development.
- **Inconsistent availability of commodities:** For appropriate and cost-effective segregation, transport, treatment, and disposal, waste bins/color-coded bin liners must be consistently available at health facilities.
- **Waste disposal facilities:** Landfills are not available within the state, but this could be provided in a fenced off area outside the city center with coordination from the Ministry of Environment and Ministry of Land (and other relevant agencies).

Potential Solutions toward Strengthening the HCWM System

- Coordination with FHI 360 (U.S. Government lead implementing partner in Akwa Ibom state) through the Strengthening Integrated Delivery of HIV/AIDS Services (SIDHAS) Project.
- AIDSFree can provide hard and soft copies of training manuals and materials to stakeholders and partners for continued incorporation into their programming.
- Efforts to establish IPC committees within health facilities of all levels in Akwa Ibom state should continue to provide supportive supervision for IPC/HCWM improvement.
- Efforts to continually consult and update facility action plans developed with AIDSFree should continue with supportive supervision to ensure that ongoing efforts and results are evaluated.
- Ensure provision of budget line for HCWM commodities at state level as a priority.
- Akwa Ibom State is encouraged to utilize the seed stock provided by AIDSFree and to continue ensuring that LGAs and facility management continue to procure these essential supplies using bundled procurement (safety boxes procured in sufficient quantity with syringes procured) and ensure that bins/bin liners and PPE are consistently available for use in all facilities.

- Capacity building for public and private health institutions on HCWM should continue, with an emphasis on waste minimization, segregation, handling, storage, and transportation.
- Capacity building for waste handlers should be ongoing, including those attached to waste management contractors, with an emphasis on the hazards/dangers of improper HCWM, the use of PPE and treatment, and health care waste disposal options.
- The Akwa Ibom State Waste Management Agency could pilot waste collection, treatment, and disposal in one LGA in Akwa Ibom, starting by transporting filled safety boxes using an appropriate covered vehicle and conveying them to University of Uyo Teaching Hospital, the nearest high-temperature incinerator.

Collaboration and Stakeholders—PPP Opportunities

The private sector companies operating in Akwa Ibom state could be approached with a proposal to support the provision of HCWM segregation commodities, as well as PPE, to be distributed to the health facilities. These companies include—but are not limited to:

- Telecommunication companies (MTN, AIRTEL, GLO, Etisalat)
- Banks (Zenith, Guaranty Trust, Skye, Access, First Bank, Ecobank, Fidelity Bank, etc.)
- Large construction companies with international affiliation
- International oil companies.

Examples of potential partnerships include:

- Provision of HCWM commodities through PPPs to ensure availability of safety boxes, color-coded bin liners to be distributed to all the health facilities.
- Development of a PPP for collection, transport, and management of health care waste through a transport network utilizing existing high-temperature incinerators in Akwa Ibom—further discussions are needed to discuss options that could create jobs and profit for a private provider.

For more information

Visit the AIDSFree website: <https://aidsfree.usaid.gov/countries/nigeria>

Access the AIDSFree IPC/HCWM Training manuals:

<https://aidsfree.usaid.gov/collections/aidsfree-nigeria-infection-prevention-and-control-and-health-care-waste-management>