



**USAID**  
FROM THE AMERICAN PEOPLE



**AIDSFree**  
Strengthening High Impact Interventions  
for an AIDS-free Generation

STRENGTHENING HIGH IMPACT INTERVENTIONS FOR  
AN AIDS-FREE GENERATION (AIDSFREE) PROJECT

# AIDSFree NIGERIA

FINAL REPORT





**STRENGTHENING HIGH IMPACT INTERVENTIONS FOR  
AN AIDS-FREE GENERATION (AIDSFREE) PROJECT**

# **AIDSFREE NIGERIA**

## **FINAL REPORT**

This publication is made possible by the generous support of the American people through the U.S. President's Emergency Plan for AIDS Relief (PEPFAR) with the U.S. Agency for International Development (USAID) under the Cooperative Agreement Strengthening High Impact Interventions for an AIDS-free Generation, number AID-OAA-A-14-00046. The information provided does not necessarily reflect the views of USAID, PEPFAR, or the U.S. Government.

## AIDSFree

The Strengthening High Impact Interventions for an AIDS-free Generation (AIDSFree) Project is a five-year cooperative agreement funded by the U.S. Agency for International Development under Cooperative Agreement AID-OAA-A-14-00046. AIDSFree is implemented by JSI Research & Training Institute, Inc. with partners Abt Associates Inc., Elizabeth Glaser Pediatric AIDS Foundation, EnCompass LLC, IMA World Health, the International HIV/AIDS Alliance, Jhpiego Corporation, and PATH. AIDSFree supports and advances implementation of the U.S. President's Emergency Plan for AIDS Relief by providing capacity development and technical support to USAID missions, host-country governments, and HIV implementers at the local, regional, and national level.

## Recommended Citation

Strengthening High Impact Interventions for an AIDS-free Generation (AIDSFree) Project. 2016. *AIDSFree Nigeria Final Report*. Arlington, VA: AIDSFree Project.

## AIDSFree Nigeria

JSI Research & Training Institute, Inc.  
Health Care Waste Management Project  
Gwandal Center - Plot 1015 Fria Close off Coree Bay Crescent - Wuse II  
Abuja, FCT

## JSI Research & Training Institute, Inc.

1616 Fort Myer Drive, 16<sup>th</sup> Floor  
Arlington, VA 22209 USA  
Phone: 703-528-7474  
Fax: 703-528-7480



# CONTENTS

---

**Executive Summary** ..... vii

**Acronyms** .....ix

**Background** ..... 1

**Overview of AIDSFree Nigeria** ..... 3

**AIDSFree Achievements** ..... 5

    Strengthening the Knowledge Base ..... 5

    Improving Knowledge of IPC and HCWM Practices..... 6

    Strengthening Facility-Level HCWM Capacity ..... 8

    Strengthening State-Level Policy Environment.....12

**Indicator Summary** ..... 15

**Conclusions** ..... 17

**Recommendations for Further Strengthening Nigeria's HCWM System**..... 19



# EXECUTIVE SUMMARY

---

The Strengthening High Impact Interventions for an AIDS-free Generation (AIDSFree) Project conducted a 15-month project in Nigeria (July 2015 to September 2016) to address weaknesses in health care waste management (HCWM) and infection prevention and control (IPC). Poor HCWM and IPC practices put facility staff, clients, and communities at risk by potentially exposing them to communicable diseases, including HIV. The project, which built on several projects funded by the U.S. Agency for International Development (USAID), took place in seven states prioritized by the U.S. President's Emergency Plan for AIDS Relief (PEPFAR) (Akwa Ibom, Benue, Cross River, Federal Capital Territory, Kaduna, Nasarawa, and Rivers). This project's objectives were to:

- Increase compliance with standard precautions among health workers in targeted health facilities in PEPFAR priority local government areas
- Promote the institution of sustainable state-owned HCWM systems
- Strengthen the IPC and HCWM component of the pre-service training curriculum and continuing medical education for health workers.

To accomplish these goals, AIDSFree conducted three major activities:

- Conducting an assessment of HCWM practices in 110 facilities in three states (Akwa Ibom, Cross Rivers, and Rivers)
- Providing training and logistical support to facilities in the seven priority states
- Conducting outreach and advocacy to state-level officials to support development of state policies on HCWM and IPC.

## Assessment

The assessment found significant shortcomings in HCWM. Providers and waste handlers had very limited training in and knowledge of HCWM best practices, and needle injuries were common. Facilities had insufficient supplies of waste management equipment, and most lacked guidance and job aids for HCWM. State-level policies on HCWM were absent.

## Training and Logistics

AIDSFree conducted cascade-style training in HCWM and IPC, and produced manuals, job aids, and supportive material for this training. As a result, 112 master trainers trained a total of 13,673 staff members (health workers and waste handlers) from the seven states. AIDSFree also helped facility staff to develop HCWM plans, including benchmarks and timelines for providing a minimum HCWM package appropriate to each facility's level of service. The project also provided an initial supply of HCWM supplies, including bins and liners, protective equipment for waste handlers, and sharps safety boxes, to help facilities initiate appropriate HCWM activities immediately. To help integrate HCWM within facility

planning and budgeting, AIDSFree also developed a logistics training manual and supported training for 339 logistics officers from three states.

## **Outreach and Advocacy**

AIDSFree shared findings from the assessment with state officials, engaged them in discussions about HCWM, and conducted a learning tour to Lagos, where the functioning HCWM system serves as a national model. Several positive outcomes ensued before the project closeout. Two states formed HCWM technical working groups and initiated actions to strengthen HCWM in their states. All states developed plans for improving HCWM over the next six months. Benue and Cross River states signed both an IPC and an HCWM policy, and Rivers state signed an IPC policy.

## **Recommendations**

To keep systems for HCWM and IPC growing, AIDSFree recommended specific actions at both the state and facility level. State-level recommendations include:

- Promulgate states policies.
- Finalize state policies that were drafted with AIDSFree support and disseminate them as needed.
- Cost and budget HCWM and IPC policies and integrate them into the state budget.
- Establish a system for transporting health care waste, using a collaborative approach.
- Strengthen collaboration between the public and private sectors.
- Orient public and private facilities on HCWM and IPC policies.

Recommendations for facilities:

- Develop a plan of action for implementing HCWM and IPC policies
- Improve commodity procurement
- Integrate HCWM into facility budgets
- Scale up training on HCWM and IPC for all health workers and waste handlers.



# ACRONYMS

---

|          |   |
|----------|---|
| AIDSFree | Strengthening High Impact Interventions for an AIDS-free Generation |
| CME      | continuing medical education  |
| FCT      | Federal Capital Territory   |
| HCWM     | health care waste management  |
| IPC      | infection prevention and control                                    |
| JSI      | John Snow, Inc.   |
| LGA      | local government area   |
| MMIS     | Making Medical Injections Safer                                     |
| PEPFAR   | U.S. President's Emergency Plan for AIDS Relief                     |
| PPE      | personal protective equipment                                       |
| USAID    | U.S. Agency for International Development                           |
| WHO      | World Health Organization   |



# BACKGROUND

---

Health care waste and injection safety represent serious concerns for HIV programs. The World Health Organization (WHO) states that improperly handled infectious health care waste (including sharps, infectious and pathological waste, chemical waste, and pharmaceuticals) pose risks to health workers, their clients, the community, and the environment. Improper injection practices also pose risks: in 2010, unsafe injection led to as many as 33,800 new HIV infections, 1.7 million hepatitis B infections, and 315,000 hepatitis C infections.<sup>1</sup> Decentralization of health care, combined with the scale-up of HIV services in the context of the 90-90-90 goals proposed by the Joint United Nations Programme on HIV/AIDS (UNAIDS), have led to increasing volumes of health care waste, underscoring the urgency of addressing these issues.

Nigeria issued both a national HCWM and IPC policy in 2013. The U.S. Agency for International Development (USAID) has supported activities in injection safety and health care waste management (HCWM) in Nigeria since 2004, working through projects led by John Snow, Inc. (JSI). The focus of these activities was on identifying gaps and implementing interventions in focal states to address them according to WHO standards.

Under the Making Medical Injections Safer (MMIS) Project, JSI provided technical assistance (TA) to the Government of Nigeria (GON) from 2004 through 2009 to promote best practices in injection safety and HCWM. The outcomes of the MMIS project included promoting the practice of bundling syringes with safety boxes, and using reuse preventive devices within therapeutic services. JSI's AIDS Support and Technical Assistance Resources (AIDSTAR-One) Project built on these accomplishments by providing seed stocks of HCWM commodities, training providers in 12 states and the Federal Capital Territory (FCT) on injection safety and HCWM, and facilitating the introduction of single use and reuse-prevention syringes.

The Strengthening High Impact Interventions for an AIDS-free Generation (AIDSFree) project in Nigeria, launched in 2015, continued this work by strengthening infection prevention and control (IPC) in states identified for scale-up by the U.S. President's Emergency Plan for AIDS Relief (PEPFAR). All of these states reported an HIV prevalence higher than the national prevalence rate of 3.4 percent and were included in the list of top 10 priority states, according to the National AIDS and Reproductive Health Survey of 2012:<sup>2</sup>

- Akwa Ibom (6.4%)
- Benue (5.6%)

---

<sup>1</sup> World Health Organization (WHO). 2015. "Health-Care Waste," *Fact Sheet No. 253*. Available at <http://www.who.int/mediacentre/factsheets/fs253/en/> (accessed September 22, 2016).

<sup>2</sup> Federal Ministry of Health [Nigeria]. 2013. *National HIV & AIDS and Reproductive Health Survey, 2012* (NARHS Plus). Abuja, Nigeria: Federal Ministry of Health.

- Cross River (4.4%)
- Federal Capital Territory or FCT (7.5%)
- Kaduna (9.2%)
- Nasarawa (8.1%)
- Rivers (15.2%).<sup>3</sup>

AIDSFree Nigeria was tasked with institutionalizing universal precautions and setting up sustainable state-driven HCWM systems.

---

<sup>3</sup> National Agency for the Control of AIDS. 2014. *Global AIDS Response, Country Progress Report, Nigeria, GARPR 2014*. Available at [http://www.unaids.org/sites/default/files/country/documents/NGA\\_narrative\\_report\\_2014.pdf](http://www.unaids.org/sites/default/files/country/documents/NGA_narrative_report_2014.pdf) (accessed September 22, 2016).

# OVERVIEW OF AIDSFree NIGERIA

---

The goal of the AIDSFree Nigeria Health Care Waste Management (HCWM) project, initially planned to be implemented over a few years, was to improve the quality of care through better management of health care waste at health facilities located in priority local government areas (LGA) s in the seven PEPFAR priority states listed earlier. The project's specific objectives were to:

- Increase compliance with standard precautions among health workers in targeted health facilities in PEPFAR priority LGAs
- Promote the institution of sustainable state-owned HCWM systems
- Strengthen the IPC and HCWM component of the pre-service training curriculum and continuing medical education (CME) for health workers.

Specific deliverables expected from the project included developing state-specific IPC and HCWM policies; creating a cadre of master trainers; and providing basic assistance to facilities to improve their logistical management of IPC and HCWM commodities.

This report describes the results the project achieved over 15 months of implementation.



# AIDSFree ACHIEVEMENTS

---

## Strengthening the Knowledge Base

In 2015, AIDSFree conducted an assessment of health care waste management practices of selected health care facilities in the three PEPFAR priority states—Akwa Ibom, Cross Rivers, and Rivers states.<sup>4</sup> The aim of the assessment was to examine health workers' compliance with IPC and HCWM protocols and determine the availability of relevant commodities. A total of 110 health facilities (39 in Akwa Ibom, 27 in Cross River, and 44 in Rivers State) were selected for the assessment and visited between February and May 2016.

The assessment identified a number of gaps and shortcomings in health care waste management at the facilities. The findings can be grouped as follows:

### Barriers at the Individual Level

Knowledge and practice of proper waste care management and disposal methods among health care providers and waste handlers was generally poor. Most health workers interviewed perceived themselves as having a low risk, or no risk, from health care waste. Furthermore, knowledge of proper health care waste management practices (such as using color-coded bins to segregate waste) was limited. Thus, application of these practices was subsequently limited. For example, in Akwa Ibom, only 32 percent of staff at the facilities visited used color-coded bins to segregating hazardous from non-hazardous waste. Around one-third of health care workers interviewed reported having experienced at least one needlestick injury over the past six months.

### Barriers at the Facility Level

The assessment found that many facilities lacked fundamental materials for health care waste management, including national policy guidance, standard operating procedures, job aids, and information, education, communication (IEC) materials needed to remind staff about proper disposal of health care waste and educate clients on infection control (e.g., sharps safety and cough etiquette/infection control measures). The majority of facilities lacked a workplan and operational budget for HCWM.

---

<sup>4</sup> Fatusi, Adesegun, Moyosola A. Bamidele, Abimbola O. Sowande, and Jennifer Pearson. 2016. *Baseline Assessment of Infection Prevention and Control and Health Care Waste Management in Selected LGAs in Akwa Ibom, Cross River, and Rivers States*. Arlington, VA: Strengthening High Impact Interventions for an AIDS-free Generation (AIDSFree) Project. Available at [https://aidsfree.usaid.gov/sites/default/files/2016.8.1\\_nigeria\\_baseline\\_assessment\\_of\\_ipc-hcwm\\_tagged.pdf](https://aidsfree.usaid.gov/sites/default/files/2016.8.1_nigeria_baseline_assessment_of_ipc-hcwm_tagged.pdf) (accessed September 22, 2016).

Many facilities also had insufficient quantities of essential commodities, such as safety boxes for disposal of needles and syringes. Facilities often lacked logistics tools, such as pharmacy stock cards that help track availability of HCWM commodities. Some facilities were still using sterilizable syringes—even though the Nigerian government has mandated the use of auto-disposable syringes.

## Barriers at the State Level

The baseline assessment did not investigate the state-level policy environment. Nevertheless, AIDSFree found that all seven states where the project worked lacked the state policies, strategic plans, and coordinating mechanisms needed to oversee the implementation of the HCWM/IPC policies and monitor compliance with international IPC and HCWM standards.

## Improving Knowledge of IPC and HCWM Practices

The AIDSFree assessment identified lack of knowledge as a key barrier to appropriate IPC and HCWM. Facility staff were insufficiently informed about the proper procedures for IPC and waste management, as evidenced by the high incidence of needlestick injuries (between 29 and 38 percent across the three states assessed) with their concomitant risks of acquiring blood-borne diseases, including HIV.

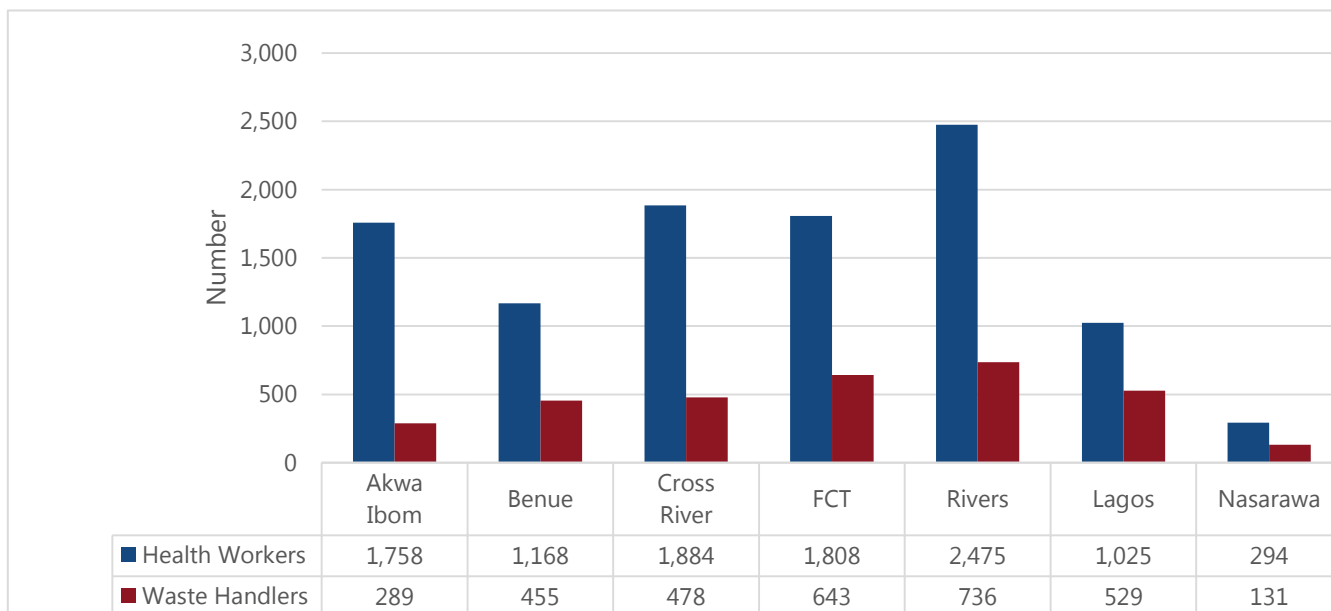
Improving knowledge of and adherence to evidence-informed, universally applied injection safety procedures among health care workers and other facility staff therefore was an important objective of AIDSFree Nigeria. The project accordingly undertook several steps to enable states to scale up training of health care workers and waste handlers in IPC and HCWM:

- *Developing training manuals:* AIDSFree developed two manuals for conducting step-down trainings of health workers and waste handlers in IPC and HCWM, respectively. The training module for health workers provides participants with an overview of internal and national IPC and HCWM policies and standards, proper hand hygiene behaviors, lab practices and how to ensure food and water safety, amongst others. The training module for waste handlers covers managing hazardous and non-hazardous waste and preventing injury from and contamination with hazardous materials; and describes the role of housekeeping. Both manuals are available on the AIDSFree website: <https://aidsfree.usaid.gov/collections/aidsfree-nigeria-infection-prevention-and-control-and-health-care-waste-management>.
- *Creating a cadre of master trainers:* The training modules described above were used to train a pool of master trainers. Six training-of-trainer workshops were conducted for facility staff in the seven focal states. A total of 112 master trainers completed the training (see Annex A for list of master trainers). The Medical and Dental Consultants Association of Nigeria, Akwa Ibom state branch, agreed to accredit CME points to participants in the AIDSFree Nigeria Training of Trainer program.



- *Training health care workers:* The master trainers trained a total of 13,673 facility staff from the seven states: 76 percent of trainees were health care workers and 24 percent were waste handlers (see Figure 1).<sup>5</sup>

**Figure 1. Number of Individuals Trained in IPC and HCWM, by Cadre and State**



The trainees' knowledge was tested before and after each training workshop held. Findings from these pre- and post-training tests revealed that between 10 and 15 percent of those trained had some knowledge about the subject area before the training. By the end of the workshop, participants' knowledge had increased by more than 50 percentage points across the topic areas. Improvements in knowledge were especially striking in health care waste management (see Figure 2 on the following page).

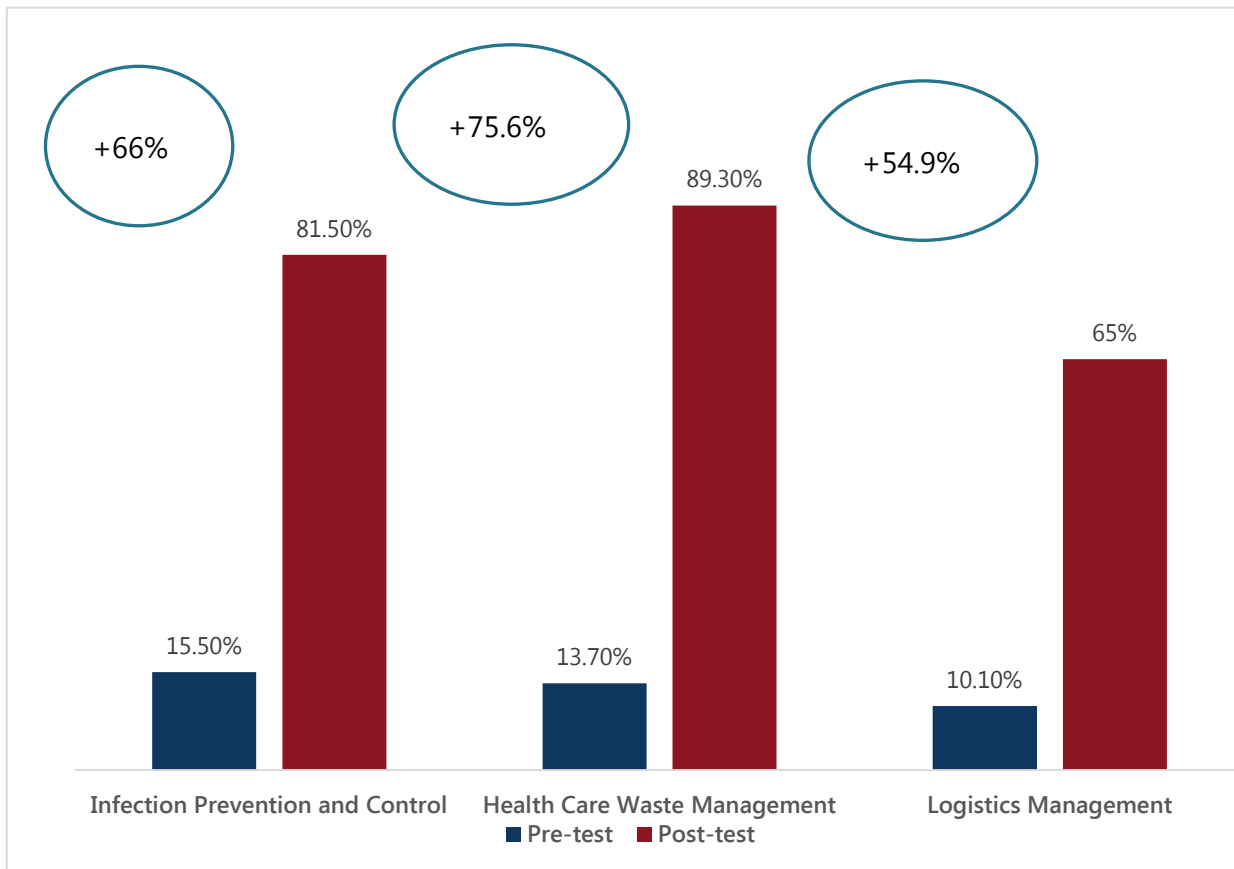
Trainees also voiced high levels of satisfaction with the training, as shown by some of their comments:

- *Terhamba Joy, General Hospital Buruku, Benue State: "AIDSFree Nigeria training has helped both health workers and waste handlers on how to properly care for the wastes they are generating to the point of final disposal."*

<sup>5</sup> States mentioned in the tables reflect actions taken in a range of states, including the seven states specified in this report.

- *Veronica Lornyagh, General Hospital Katsina Ala, Benue state:* "There is improvement; there is great change in the attitude of health workers and waste handlers on health care waste and use of hospital equipment."
- *Waste handler, Asokoro District Hospital, Abuja:* "I am able to provide on-the-spot training to other health workers in my facility. I also advocate to the management to provide materials like safety boxes, bin liners, etc., to make [it] easier to practice segregation of waste in my health facility."

**Figure 2. Proportion of Trainees with Essential Knowledge of Waste Management, Infection Control, and Logistics Before and After Training (%)**



## Strengthening Facility-Level HCWM Capacity

### Improving Availability of Technical Guidance at Facilities

The assessment found that facility staff lacked job aids to reinforce their training. AIDSFree responded by developing a number of posters and informational materials to remind staff about how to follow proper IPC and HCWM procedures (see Figure 3 below). The project furnished and distributed a large number of materials, including:

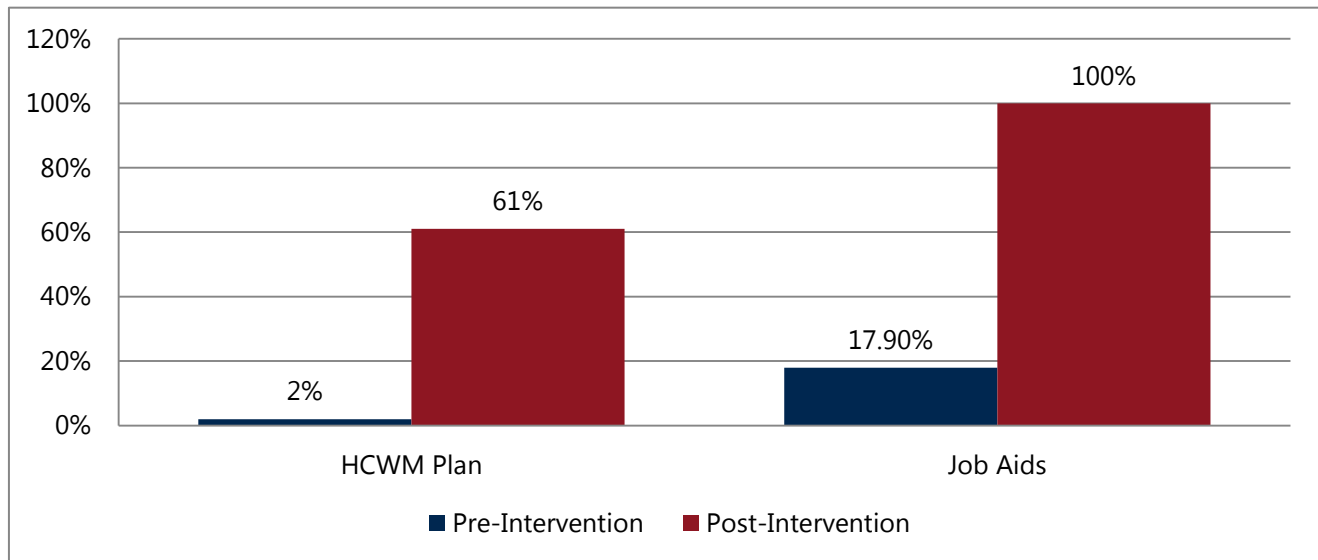
- Desktop calendars with messages on best practices for IPC and HCWM, distributed to facility management and key state stakeholders to serve as a reminder and a teaching opportunity

- 6,000 posters titled "Be Needle Smart" to reinforce the message of injection safety
- 6,000 posters with messages about unnecessary injections and health care waste
- 3,000 posters promoting best practices in safe medical waste management
- 12,000 posters on health care waste segregation
- 15,000 posters on the "Eleven Rights " (right practices for administering medication to patients)
- 30,000 posters on the WHO "Five Moments for Hand Hygiene."<sup>6</sup>

### Developing Facility HCWM Plans

The AIDSFree project worked with facility staff to build their capacity to develop facility-specific HCWM management plans. These plans describe the current status of HCWM in the facility and outline steps for improving this status, including a timeline for implementation of each activity. As of the end of the project, over 60 percent of AIDSFree focal LGAs had developed HCWM plans—up from 2 percent before the intervention (see Figure 3).

**Figure 3. Proportion of Facilities with Job Aids and HCWM Plan, Pre- and Post-Intervention (%)**



Implementation of the steps in each facility's HCWM plan enables the facility to achieve a minimum package for health care waste management appropriate to the facility's level of care (see Table 1).

<sup>6</sup> See the posters at <https://aidsfree.usaid.gov/collections/nigeria-information-education-communication-materials>.

**Table 1. Minimum Package for HCWM**

|                          | <b>PHCs</b>   | <b>Hospitals</b>   |
|--------------------------|---|--|
| <b>Waste Segregation</b> | Safety boxes (for sharps).<br>Black, yellow, red liners   | Safety boxes (for sharps). Black, yellow, red liners   |
| <b>Storage</b>           | Secured room not assessable to unauthorized personnel for storing filled safety boxes prior to treatment/transportation   | Secured room not assessable to unauthorized personnel for storing filled safety boxes prior to treatment / transportation  |
| <b>Treatment</b>         | Either of the following:<br>Emptying waste in a protected pit (with or without burial)<br>Secure confinement until transportation off site to a facility for final disposal | Any of the following:<br>A double-chamber high- or medium-temperature incinerator (above 800 degrees C)<br>Emptying waste in a protected pit (with or without burial)<br>Use of autoclave (with or without use of a shredder)<br>New technology that becomes an internationally accepted standard<br>Secure confinement until transportation off site to a facility for final disposal |
| <b>Disposal</b>          |   | Ash pits (if final disposal is on-site and using a high-temperature incinerator)   |

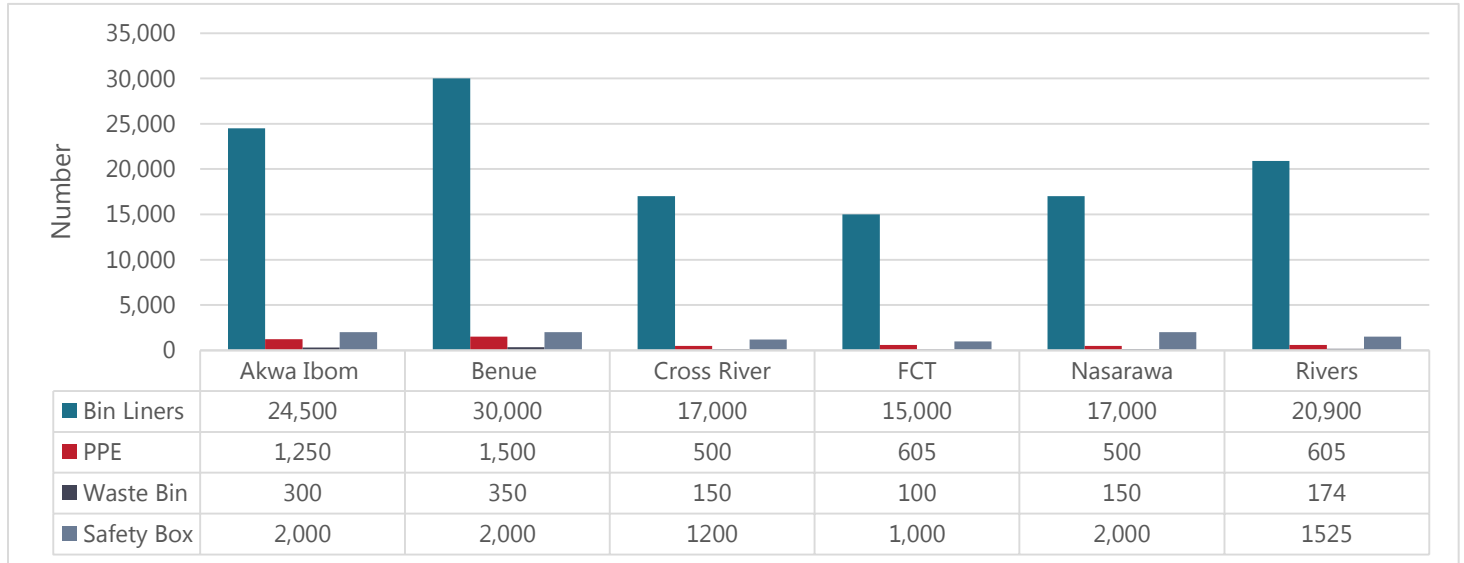
### Strengthening logistics systems

The assessment identified capacity gaps in logistical management and shortages of key HCWM and IPC commodities at the facilities. Accordingly, AIDSFree Nigeria provided both material and training support to strengthen logistics systems in the priority LGAs.

*Procuring seed stock:* As an initial step (to enable facilities to begin implementing appropriate HCWM measures immediately), AIDSFree procured and distributed seed stock to facilities that participated in the assessment in six states (see Figure 4). Stock comprised:

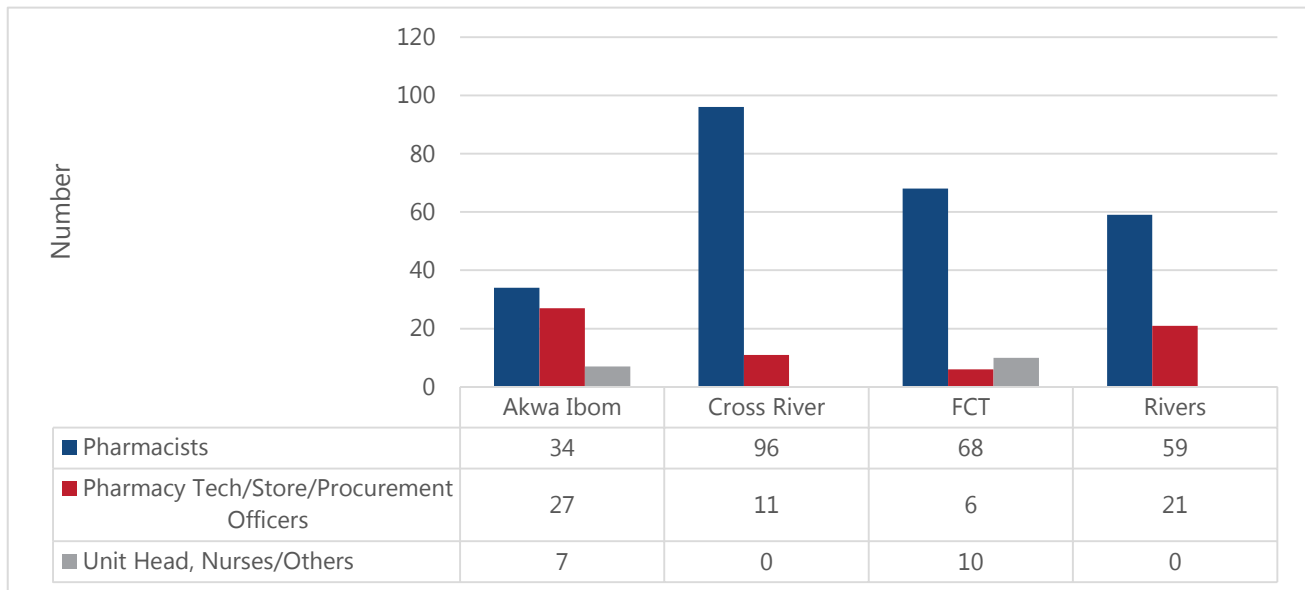
- 124,400 bin liners
- 4,960 personal protective equipment (PPE) sets, including heavy-duty gloves, nose masks, and goggles
- 1,224 waste bins
- 9,725 safety boxes.

**Figure 4. Seed Stock Distributed, by Type**



*Logistics training:* AIDSFree developed a logistics training manual for training staff members who are responsible for improving, revising, designing, and operating any part of a logistics system. The manual can be found at <https://aidsfree.usaid.gov/resources/aidsfree-nigeria-logistics-ipc-and-health-care-waste-management-commodities-training>.

**Figure 5. Training in Logistics, by Cadre and State**



To ensure that IPC/HCWMM commodities are procured along with essential medicines, the project trained 339 logistics officers from 6 tertiary health facilities from Akwa Ibom, Cross Rivers, and the FCT on logistics management, commodity forecasting, and data management over a two-day workshop. Figure 5 specifies the number and types of professionals who received the training.

## Strengthening State-Level Policy Environment

Though the AIDSFree assessment did not focus on state-level HCWM or IPC policies, it assisted state authorities in several ways that are described below. AIDSFree's work with state-level stakeholders also led to important developments in terms of ensuring strong support for managing health care waste and strengthening injection safety:

### Improving Knowledge about the HCWM Situation in Three States

The HCWM assessment provided state-level officials with valuable information about the status of HCWM in their facilities. The assessment revealed a number of critical gaps and weaknesses that states need to address. The project provided state officials with concrete recommendations for corrective actions they can take to address these gaps.

### Developing State-Level IPC and HCWM Policies

AIDSFree engaged relevant state officials and stakeholders in dialogue on developing sustainable, state-owned HCWM systems and institutionalizing best practices in IPC. The project carried out numerous advocacy visits and organized stakeholder discussions during participants exchanged information, discussed challenges to HCWM, and identified potential solutions.

### Organizing Educational Exchange

In July 2016, AIDSFree organized an assessment tour to Lagos Waste Management Authority (LAWMA) for state delegates from Akwa Ibom, Benue, and Cross River states. This visit enabled the delegates to learn best practices in HCWM from LAWMA, which serves as a model of a state-owned HCWM system, and to promote collaboration on HCWM among the participating states.

As a result of this educational exchange and AIDSFree's ongoing advocacy, states took several important steps to improve their health care waste management practices:

- **HCWM technical working group:** Akwa Ibom and Benue states set up state-level technical working groups on HCWM, each including with members from the state Ministry of Health, Ministry of

**Engr. Andrew Chile, Manager, Benue State Environment Sanitation Authority:**

*"Collaboration with JSI/AIDSFree has been very impressive in improving the outlook of activities in Benue State because this formed the strong basis for the structural formation of our main program supporting the setting up of a technical working committee on integrated waste management structure in Benue State."*



Environment, and the state waste management agency. The group in Benue soon undertook several steps to improve the waste management situation in their state:

- ▶ Requested assessment of a high-temperature rotary kiln incinerator in Makurdi, and ensured that repair of the incinerator would be undertaken
  - ▶ Asked Benue's Commissioner for Health and Commissioner for Environment to disseminate the state-level HCWM policy to all health facilities
  - ▶ Submitted a proposal to the Ministry of Health for training more health workers and staff of Benue State Environment Sanitation Authority (BENSESA).
- **State action plans:** The three states (Akwa Ibom, Benue and Cross River) developed state-level action plans highlighting activities for promoting and strengthening HCWM systems within the next six months.
  - **State-level policies:** Two states—Benue and Cross River—signed both an IPC and an HCWM policy; Rivers signed an IPC policy. Akwa Ibom and FCT have drafted policies that were pending signature at the time of AIDSFree closeout. These policies address legal and regulatory framework; non-compliance and enforcement; roles and responsibilities for capacity building at different levels; and procedures to ensure availability of essential HCWM and IPC commodities. The policies also promote public-private partnerships and operational research to improve practices.

A success story on Nigeria's HCWM work is available at: <http://thepump.jsi.com/managing-health-care-waste-in-the-push-to-2020/>





# INDICATOR SUMMARY

The table below gives a summary of AIDSFree's achievements during the one-year duration of the HCWM project in Nigeria.

**Table 2. End-of-Project Status of Project Performance Indicators**

| Performance Indicator  | Target (FY 16) | Actual (as of September 30, 2016) | Notes   |
|--|----------------|-----------------------------------|---|
| Number of individuals trained in IPC and HCWM  | 12,000         | 14,124                            | Health workers trained: 10,412<br>Waste handlers trained: 3,261<br>Logistics officers trained: 339<br>Master trainers: 112  |
| Number of advocacy visits to state officials/stakeholders on development and approval of HCWM policy | 110            | 82                                | States targeted with advocacy visits: Akwa Ibom, Benue, Cross River, FCT, Kaduna, Lagos, Nasarawa, and Rivers   |
| *Number of target states with an approved IPC policy   | 4              | 3                                 | States with approved IPC policy: <ul style="list-style-type: none"> <li>• Benue</li> <li>• Cross River</li> <li>• Rivers</li> </ul>   |
| *Number of target states with an approved HCWM policy  | 4              | 2                                 | States with approved HCWM policy: <ul style="list-style-type: none"> <li>• Benue Cross River</li> </ul>   |
| Number of IPC/HCWM modules accredited by regulatory bodies for Continuous Medical Education (CME)    | 1              | 1                                 | IPC/HCWM module approved for CMEs by the Medical and Dental Consultants Association of Nigeria, Akwa Ibom state branch  |
| Number of IPC/HCWM curriculums/modules developed   | 2              | 4                                 | Modules developed: <ul style="list-style-type: none"> <li>• Health worker training module</li> <li>• Waste handler training module</li> <li>• Logistics training module</li> <li>• HCWM curriculum for (a) USAID implementing partners and (b) health institutions and professional bodies for CME</li> </ul> |
| Number of target states with functional IPC committee  | 5              | 4                                 | States with IPC committees: <ul style="list-style-type: none"> <li>• FCT</li> <li>• Akwa Ibom</li> <li>• Cross Rivers</li> <li>• Rivers</li> </ul>  |
| Percent of health facilities supported by AIDSFree with HCWM plan                                    | 80%            | 75%                               |   |



# CONCLUSIONS

---

AIDSFree Nigeria's 18-month project built a strong foundation for progress in improving the quality of health care by addressing specific goals in HCWM and IPC. The project's HCWM assessment indicated significant weaknesses in HCWM and injection practices in all facilities surveys (including provider knowledge, commodities, and facility policies). AIDSFree responded by increasing providers' knowledge about HCWM and safe injection, using a cascade training strategy that not only improved knowledge of HCWM among over 13,000 providers and waste managers, but also left a strong cadre of trainers in place at the project's end. The project also provided seed stock of basic HCWM and IPC supplies, and provided training for 339 logistics officers. By the time of the closeout, more than half of participating facilities had developed plans for institutionalizing HCWM and ICP; and AIDSFree had distributed a wide range of educational materials, job aids, and guidance to facilities. As importantly, the project's outreach to stakeholders led to state-level development of HCWM and ICP plans—a fundamental condition for sustainably safe injection and waste management.

More remains to be done, however. The recommendations that follow indicate additional steps to help states and facilities strengthen their policies and services.



# RECOMMENDATIONS FOR FURTHER STRENGTHENING NIGERIA'S HCWM SYSTEM

---

AIDSFree provided states with several recommendations on steps for further improving the HCWM system:

1. Domesticated approved States Policies to be disseminated for operationalize the strategies.
2. States with draft policies to get finalized them, disseminate and operationalize the strategies
3. Cost out and develop a budget for IPC and HCWM policies that are in accordance with national policies, to secure sustainable financing.
4. Integrate HCWM into the state budget.
5. Create a state HCWM unit to institutionalize training and supervision for HCWM practitioners, and to oversee and monitor the implementation of HCWM policies.
6. Establish an IPC committee with a HCWM sub-committee in every state to monitor compliance by health care facilities.
7. Establish a system within each state's Ministry of Environment for transporting health care waste from public and private health care facilities through the state waste management agencies, with collaboration between these agencies and any other appropriate bodies.
8. Strengthen collaboration between the public and private sectors to sustain an improved HCWM system.
9. Scale up training in IPC and HCWM to all public and private health care facilities beyond those already reached by AIDSFree.
10. Establish a HCWM technical working group to monitor each state's HCWM policies.

Facilities were also advised to take the following steps:

1. Develop an action plan on how to implement state IPC and HCWM policies.
2. Take corrective actions to improve commodity procurement.
3. Integrate HCWM within each facility's budget.
4. Scale up training on IPC and HCWM for health worker and waste handlers.



**AIDSFree Nigeria**

JSI Research & Training Institute, Inc.

Health Care Waste Management Project

Gwandal Center - Plot 1015 Fria Close off Coree Bay Crescent - Wuse II

Abuja, FCT