



# Guidebook for VMMC HCWM Toolkit

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Guidance on using the Toolkit for Health Care Waste Management in Voluntary Medical Male Circumcision Campaigns

October 5, 2013





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Management in Voluntary Medical Male Circumcision  
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Providing quality medicines for people  
living with and affected by HIV and AIDS



## **About SCMS**

The Supply Chain Management System (SCMS) was established to enable the unprecedented scale-up of HIV/AIDS prevention, care and treatment programs in the developing world. SCMS procures and distributes essential medicines and health supplies, works to strengthen existing supply chains in the field, and facilitates collaboration and the exchange of information among key donors and other service providers. SCMS is an international team of 13 organizations funded by the US President's Emergency Plan for AIDS Relief (PEPFAR). The project is managed by the US Agency for International Development.

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## **Supply Chain Management System**

1616 Ft. Myer Drive, 12<sup>th</sup> Floor  
Arlington, VA 22209 USA  
Telephone: +1-571-227-8600  
Fax: +1-571-227-8601  
E-mail: [scmsinfo@pfscm.org](mailto:scmsinfo@pfscm.org)  
Website: [www.scms.pfscm.org](http://www.scms.pfscm.org)

# TABLE OF CONTENTS

TABLE OF CONTENTS .....	i
ACRONYMS .....	ii
PURPOSE OF THE TOOLKIT .....	1
Health Care Waste .....	1
Responsibility.....	2
Guidance and Standards .....	3
Users and Target Audience .....	3
PURPOSE OF THIS GUIDEBOOK.....	4
HEALTH CARE WASTE MANAGEMENT FOR VMMC.....	5
Operational Planning.....	6
Procurement and Commodity Management .....	8
Point of Generation.....	9
Storage .....	10
Transport/Transfer .....	11
Treatment or Destruction and/or Disposal .....	12
Staffing.....	13
Training .....	14
Quality Management .....	16
Environmental Hygiene .....	20
TOOLS.....	21
VMMC Initial Assessment Tool.....	21
Procurement & Commodity Management Tools .....	21
Standard Operating Procedures.....	21
IEC Materials.....	22
Supplementary VMMC Guidance Documents .....	22
Minimization, Treatment and Disposal of Waste Tools .....	23
VMMC Training Curriculum .....	23
Quality Management Tools .....	24

# ACRONYMS

ADS	Automated Directives System
EIA	Environmental Impact Assessment
EMMP	Environmental Monitoring and Mitigation Plan
HCAIs	Health Care–associated Infections
HCF	Health Care Facility
HCRW	Health Care Risk Waste
HCW	Health Care Waste
HCWM	Health Care Waste Management
IEC	Information, Education, and Communication
IOD	Injury on Duty
M&E	Monitoring and Evaluation
NSI	Needle-stick Injury
PEPFAR	President’s Emergency Plan for Aids Relief
PPE	Personal Protective Equipment
PQAU	Project Quality Assurance Unit
SCMS	Supply Chain Management System
SOP	Standard Operating Procedure
QM	Quality Management
QMS	Quality Management System
USAID	United States Agency for International Development
VMMC	Voluntary Medical Male Circumcision
WI	Work Instruction

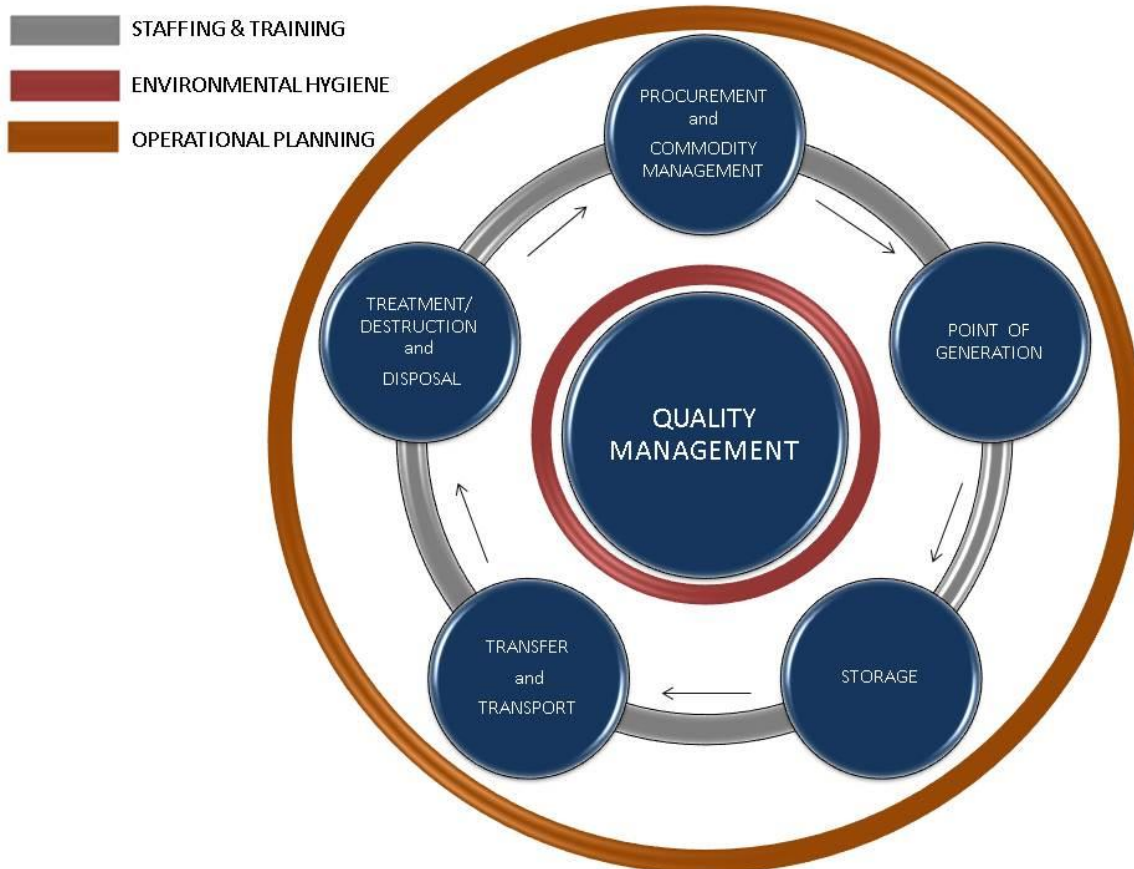
# PURPOSE OF THE TOOLKIT

## Health Care Waste

Health care activities generate waste. Health care waste (HCW) varies in nature and form, and comprises hazardous and non-hazardous elements that require unique segregation (i.e., separation or sorting), packaging, handling, transport, treatment, and/or disposal methods to minimize risks to people, animals, and the environment. For this reason, health care waste management (HCWM) is a highly regulated sector.

SCMS developed the VMMC Health Care Waste Management Model as a sustainable and cost-effective process for ensuring that VMMC sites properly handle, treat, and/or dispose of HCW, and practice sound environmental hygiene. It is adapted from the logistics cycle, adding elements that are specific to HCWM and linking each step to a quality management system. At its core, the VMMC Health Care Waste Management Model is meant to establish a standard approach to HCWM in VMMC campaigns.

### VMMC Health Care Waste Management Model



## Responsibility

As a health care activity, VMMC campaigns generate HCW. Campaign stakeholders and implementing partners are thus responsible for ensuring efficient, safe HCWM from *cradle* (the point of generation) *to grave* (the point of final disposal).

Sound HCWM is also a requirement for a VMMC campaign's Environmental Monitoring and Management Program (EMMP) and/or Environmental Impact Assessment (EIA), which all USAID-funded programs are required to comply with under the U.S. Government's environmental regulations (often referred to as *Reg. 216*). These regulations outline the EIA process that USAID designed to identify potential impacts—positive or negative—that a project or activity may have on the environment. The process is intended to prevent activities that are likely to cause significant environmental harm, and ensure that projects monitor and mitigate any negative effects on the environment. For more information, see Title 22 of the Code of Federal Regulations and the administrative guidelines in Chapter 204 of USAID's Automated Directives System (ADS).

### Swaziland Accelerated Saturation Initiative

The USAID-funded Swaziland Accelerated Saturation Initiative, known locally as *Soka Uncobe* (“circumcise and conquer”) was implemented in 2011 and 2012 to support the Swaziland Ministry of Health's goal of achieving 80% coverage for voluntary medical male circumcision in the country's adult male population within a 12-month timeframe. Health care waste management was a major health and environmental concern from the beginning of the initiative. Without proper handling and disposal, sharps waste and other infectious waste pose a serious threat to service providers, the general public, and the environment. With this in mind, SCMS collaborated with the Ministry of Health's Environmental Health Department to develop the Health Care Waste Management Implementation Plan. This plan was designed with a primary focus on preventive measures to reduce health and environmental risks associated with mismanaged health care risk waste. The plan also proposed proactive approaches to foster an atmosphere of sustainable health care waste management, and protection of the environment, health care providers, and the community.

During project implementation, it was found that Swaziland did not have a health care risk waste certification program to license transport companies. To respond to this gap, SCMS, the Swaziland Environmental Authority, and the Swaziland Ministry of Health's Environmental Health Department developed a training and certification program to help ensure the safe handling of health care waste. The program was consistent with requirements established by the Government of the Kingdom of Swaziland, the U.S. National Institute for Occupational Safety and Health, and the U.S. Occupational Safety and Health Administration. The Swaziland Environment Authority was responsible for conducting training and certifying the private waste hauling firms that successfully completed the course. Certified firms then became eligible for contracting through SCMS for waste transport services to support the *Soka Uncobe* campaign.

This public-private partnership resulted in improvements in waste handling that will be sustained well beyond the end of the *Soka Uncobe* campaign. These mutually beneficial relationships should be encouraged as a means to creating a lasting impact on the country's health care system.



## **Guidance and Standards**

The VMMC HCWM toolkit was created to provide guidance on implementing HCWM best practices for MC Campaigns. Each component of the toolkit is based on the Swaziland VMMC experience as well as WHO and South African standards (SANS 10248, in particular), depending on which emerged better suited for the African context.

The authors strongly believe that standardizing practices is essential for achieving quality services, and for allowing campaigns to learn from each other through knowledge sharing and comparative analysis. At the same time, there are certain aspects of HCWM that require customization, depending on country-specific laws and regulations. The toolkit thus includes callouts to indicate where country-specific adaptations should be considered.

## **Users and Target Audience**

This VMMC HCWM toolkit is designed for staff members and partners of PEPFAR-funded organizations that are planning, implementing, or evaluating VMMC HCWM campaigns.

# PURPOSE OF THIS GUIDEBOOK

This guidebook serves as a navigation tool to facilitate optimal use of the tools in the VMMC Toolkit for Health Care Waste Management by providing a basic understanding of their purpose, and how they all connect and communicate with each other to “close the loop” that forms the VMMC HCWM Model.

The toolkit’s components are presented as individual pieces that form a complete system, addressing the start-to-finish development of an HCWM system and the concept of designing or improving specific elements and activities to achieve a minimum level of quality across-the-board through standard operating procedures. Each component is introduced in a stand-alone section that includes an overview, timeline, useful tools and/or guidance document.

The implementation timeline illustrates the various components that are essential in the development of a robust HCWM system. Each component is a critical part of the system and is dependent on other components; some may occur concurrently while other may occur sequentially. The goal of this timeline is to address all components within eight (8) months prior to the campaign’s kickoff to ensure all critical systems are in place.

Implementation Timeline Table								
Months prior to campaign kickoff	8	7	6	5	4	3	2	1
<b>Operational Planning</b>	█							
<b>Procurement and Commodity Management</b>			█	█	█			
<b>Point of Generation Storage</b>						█		
<b>Transport and Transfer</b>					█	█		
<b>Treatment or Destruction and/or Disposal</b>			█	█				
<b>Staffing</b>			█	█	█	█		
<b>Training</b>							█	
<b>Quality Management</b>						█		
<b>Environmental Hygiene</b>						█		

This guidebook is accompanied by an interactive webpage (<http://scms.pfscm.org/scms/communitycenter/tools/vmmc>) that contains specific tools and resources. These tools and resources are referenced in each section and are also provided on a CD-ROM by emailing [HCRW@pfscm.org](mailto:HCRW@pfscm.org).

# HEALTH CARE WASTE MANAGEMENT FOR VMMC

Where feasible, VMMC campaign sites can be integrated with existing health care facilities or they may be established as stand-alone units (either fixed or mobile). It is essential for high-level decision makers and implementers to consult with on-the-ground operators and the local health care community when designing VMMC campaigns to ensure conformity with a country's health care system. However, programming concessions that put quality at risk should never be made. Standardizing approaches based on best practices not only helps ensure a minimum level of quality in service provision, but also facilitates the continuous identification of new best practices and solutions to important challenges by enabling the comparison of VMMC campaigns from one country to the next.

## Operational Planning



### Implementation Timeline

<b>SOPs, Guidance Documents and Templates</b>	<ul style="list-style-type: none"> <li>• VMMC Guidance Document on Developing a HCWM Plan</li> <li>• VMMC HCWM Initial Assessment Tool (excel file)</li> <li>• Orientation Timeline Schedule</li> <li>• PEPFAR’s Best Practices for Voluntary Medical Male Circumcision (VMMC) Site Operations (.pdf file)</li> </ul>
<b>Training Modules</b>	<ul style="list-style-type: none"> <li>• National Orientation Guide: Initial Assessment and Operational Planning</li> <li>• National Orientation Guide Training Roll-out</li> </ul>

**Objectives:** Systematically assess and address infrastructure requirements for designing and implementing a robust HCWM system.

**Description:** Operational planning is the essential process of identifying and scheduling implementation activities to achieve campaign objectives. The first step in developing an operational plan for HCWM is assessing the country context by systematically determining infrastructure requirements. The VMMC Initial Assessment Tool is a series of paper-based questionnaires that are primarily designed to collect valuable data for the design, implementation, and improvement of an HCWM plan. This assessment tool will provide policy makers with a better understanding of what is required to manage HCW responsibly and correctly. The tool’s aim is to:

- “Take a picture” of existing HCWM systems and related practices (i.e., infrastructure, tools, systems, processes, and human resource capacity);
- understand the HCWM enabling environment (i.e., relevant legislation and regulations, and the role of key stakeholders); and
- identify the most problematic issues and gaps, and prioritize actions for implementing an HCWM Operational Plan.

The data collected from the assessment will be used to draft a plan that addresses the HCWM cycle by carefully implementing necessary measures, setting timelines, and allocating resources for cost-effective solutions. Using the guidance document will allow you to develop the most crucial elements of a successful HCWM plan, including:

- Setting realistic timelines to achieve objectives within a 12-month period.
- Creating a country map in which all potential and feasible high-impact VMMC sites are plotted in relation to existing HCFs, and treatment and/or disposal facilities or sites.

- Creating a site map that clearly defines the point of waste generation within a VMMC site (e.g., blood drawing area, operating theater, testing area, or recovery area, etc.).
- Outlining HCWM product requirements and minimum specifications.
- Detailing the procedures, communications materials, and training requirements related to the identification, segregation, storage, transport, treatment, and/or disposal of HCW.
- Defining the requirements for a monitoring and evaluation plan, including an incident reporting system.
- Selecting environmentally sound treatment and/or disposal methods.
- Defining an organizational chart (organogram) to inform campaign recruitment, including delineated roles and responsibilities.

## Procurement and Commodity Management



Implementation Timeline



<b>SOPs, Guidance Documents and Templates</b>	<ul style="list-style-type: none"> <li>• VMMC Guidance Document on HCWM Product Specifications and Requirements</li> <li>• Basic Forecasting and Monitoring Tool for VMMC (excel file)</li> </ul>
<b>IEC Materials</b>	<ul style="list-style-type: none"> <li>• Health Commodities Storage Best Practices</li> </ul>
<b>Training Modules</b>	<ul style="list-style-type: none"> <li>• Training Module 6: Basic Supply Chain Principles for HCWM Commodities</li> </ul>

**Objectives:** Define the requirements for procuring and managing the commodities that are used in an HCWM system.

**Description:** The ability to conduct efficient, high-quality VMMC campaigns depends largely on the availability of necessary commodities. Forecasting and procurement planning are essential to ensuring that an HCWM system meets its specific purchasing objectives, as well as its overarching goals. Effective planning will produce more efficient and economical procurements, which in turn will ensure that products are delivered to VMMC sites in the right condition at the right time. Procurement planning successfully integrates the full range of activities that are part of a campaign when the staff members who are responsible for those different activities coordinate their efforts. The extent of procurement planning varies with the size, complexity, and value of campaign requirements. Since HCW usually includes hazardous substances (known as health care risk waste [HCRW]), safety can never be compromised for the sake of saving money. It is imperative that relevant products used for HCWM meet a minimum standard of quality that will allow them to fulfill their purpose. For example, containers procured for HCWM must be properly manufactured to ensure safe confinement of waste throughout the waste management chain. The minimum product specifications that are included in the Toolkit are thus a vital resource for ensuring the minimum quality of HCWM products or commodities.

Procurement should be open and transparent to allow for sufficient lead time (i.e., the time between when new stock is ordered and when it is received and available for use). The procurement process may take as little as six weeks or as long as a full year, depending on manufacturer stock levels and lead time.

Ultimately, sound commodity management is a critical part of maintaining correct product usage and enabling adherence to standard operating procedures.

## Point of Generation



<b>SOPs, Guidance Documents and Templates</b>	<ul style="list-style-type: none"> <li>• SOP-PQAU001-008: Identification, Segregation &amp; Packaging of HCW</li> <li>• SOP-PQAU001-009: Handling and Packing</li> </ul>
<b>IEC Materials</b>	<ul style="list-style-type: none"> <li>• VMMC Health Care Waste Streams</li> <li>• Injection Safety and Sharps Safety</li> <li>• Personal Protective Equipment (PPE) for Waste Handlers</li> </ul>
<b>Training Modules</b>	<ul style="list-style-type: none"> <li>• Training Module 1: Basic Health Care Waste Management (HCWM) for Male Circumcision (MC)</li> </ul>

**Objectives:** Properly identify, segregate, and package waste according to a color-coded system for visual identification.

**Description:** The key to minimizing risk and minimizing waste is to effectively managing HCW by identifying and segregating items based on the following VMMC-specific HCW categories: General, Pharmaceutical, Infectious, Sharps and Special (decontaminated disposable metal instruments) Waste. Identification and segregation are the responsibility of the staff that produce/generate the waste and should occur as close as possible to the point of generation.

A formal protocol is needed to appropriately identify and segregate each category of waste. Color coding relevant waste containers is a quick and easy way to identify segregated HCW and visually indicate the contents of each container for waste handlers downstream. The color-coding scheme described for the purposes of this toolkit is not entirely prescriptive. Should the country’s prevailing color-coding scheme for relevant HCW categories differ vastly and cause any major difficulties in terms of compliance, then it makes sense for the campaign to modify and adapt to the country’s color-coding scheme accordingly.

Appropriate containers must be placed in locations where relevant streams of waste are generated. It is essential that instructions (IEC materials) on waste segregation be posted at each waste generation point to enable and promote sound HCWM segregation.

Waste should not be allowed to accumulate at the point of generation nor should it be stored indefinitely; a routine schedule must be developed for collecting and transferring waste on-site. A temporary storage location should be established within the confines of the VMMC Site. Temporary on-site storage of HCRW is addressed in the next section of this document.

## Storage



Implementation Timeline



<b>SOPs, Guidance Documents and Templates</b>	<ul style="list-style-type: none"> <li>• SOP-PQAU001-009: Handling and Packing</li> <li>• SOP-PQAU001-011: Spill Management</li> <li>• SOP-PQAU001-012: Storage Criteria and Guidance</li> </ul>
<b>IEC Materials</b>	<ul style="list-style-type: none"> <li>• Know your Hazard Symbols</li> <li>• Health Care Risk Waste Storage Sign (.jpg file)</li> </ul>
<b>Training Modules</b>	<ul style="list-style-type: none"> <li>• Training Module 1: Basic Health Care Waste Management (HCWM) for Male Circumcision (MC)</li> </ul>

**Objectives:** Identify the minimum requirements for designated spaces, areas, locations or facilities that are used to store HCRW at VMMC sites before collection and off-site transport to relevant treatment/destruction and/or disposal facilities.

**Description:** A temporary storage location should be established within the confines of all VMMC sites. This location should be inaccessible to unauthorized staff and away from the public. Before transfer, HCRW should be securely packaged, contained, and isolated from odors and potential infestation by vermin (pests). As previously noted, using color-coded HCRW containers at the point of generation serves to inform waste handlers of the contents (i.e., the HCRW category), facilitating special handling and treatment/disposal further downstream in the waste management chain.



## Transport/Transfer



Implementation Timeline



<p><b>SOPs, Guidance Documents and Templates</b></p>	<ul style="list-style-type: none"> <li>• SOP-PQAU001-009: Handling and Packing</li> <li>• SOP-PQAU001-010: On-site Transport</li> <li>• SOP-PQAU001-013: Waste Quantification</li> <li>• SOP-PQAU001-014: Document Flow / Control</li> <li>• SOP-PQAU001-015: HCRW Transport Requirements for Drivers &amp; Vehicles</li> <li>• SOP-PQAU001-016: Transport Emergency Response</li> </ul>
<p><b>IEC Materials</b></p>	<ul style="list-style-type: none"> <li>• Emergency Response Plan</li> <li>• Spill Management</li> <li>• Personal Protective Equipment (PPE) for Waste Handlers</li> </ul>
<p><b>Training Modules</b></p>	<ul style="list-style-type: none"> <li>• Training Module 3: Weighing and Recording Health Care Risk Waste (HCRW)</li> <li>• Training Module 4: Requirements for the Transport of Health Care Risk Waste (HCRW)</li> </ul>

**Objectives:** Ensure the safety of all staff that handle HCRW and identify the minimum requirements for safe, legal transport of HCRW to treatment or destruction and/or disposal facilities off-site. This section includes driver and vehicle requirements to guide VMMC campaigns in enlisting suitable transport service providers.

**Description:** Off-site transport of HCW should be conducted in vehicles that are suitably equipped to transport dangerous goods and comply with all relevant country laws. Similarly, drivers operating these vehicles should be suitably licensed and qualified to transport dangerous goods. Relevant control documents used for capturing, accounting, accountability and statistical analysis, etc. should be in place and filled in correctly and consistently. Vehicles and drivers transporting HCRW should be suitably trained and fully equipped to handle emergencies, such as a waste spill as the result of a traffic accident.

## Treatment or Destruction and/or Disposal



Implementation Timeline



<p><b>SOPs, Guidance Documents and Templates</b></p>	<ul style="list-style-type: none"> <li>• VMMC Guidance Document on the Protocol for Unusable and/or Expired Chemicals &amp; Pharmaceuticals</li> <li>• VMMC Guidance Document on the Protocol for Unused and Expired Male Circumcision (MC) Kits</li> <li>• VMMC Guidance Document on the Proper Minimization, Treatment and Disposal of Waste</li> <li>• Unused and Expired Products Inventory Template (excel file)</li> </ul>
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**Objectives:** Outline the proper treatment or destruction and disposal of HCRW, based on the different HCRW streams.

**Description:** A suitable plan is needed for the treatment or destruction and/or disposal of each waste stream (General, Pharmaceutical, Infectious, Sharps and Special Waste), taking into account the unique nature of each stream. VMMC campaigns will most likely outsource the most suitable facility in-country to treat or destroy and/or dispose of their HCRW. For this reason, the toolkit does not explore this subject area in any particular detail, nor does it provide guidance; however, various treatment or destruction and disposal methods for select waste streams are recommended in the supplementary guidance documents provided to assist decision makers accordingly.

## Staffing



Implementation Timeline



<b>SOPs, Guidance Documents and Templates</b>	<ul style="list-style-type: none"> <li>• SOP-PQAU001-001: HCRW Worker Health &amp; Safety</li> <li>• SOP-PQAU001-002: Incident Reporting</li> <li>• SOP-PQAU001-003: Injury On Duty &amp; Needle Stick Injury Procedures</li> <li>• SOP-PQAU001-004: General &amp; Antiseptic Hand Hygiene</li> <li>• VMMC Guidance Document on Developing a HCWM Plan</li> </ul>
<b>IEC Materials</b>	<ul style="list-style-type: none"> <li>• Hand Hygiene</li> <li>• Personal Protective Equipment (PPE) for Waste Handlers</li> <li>• Injection Safety and Sharps Safety</li> </ul>
<b>Training Modules</b>	<ul style="list-style-type: none"> <li>• Training Module 2: Worker Health &amp; Safety Best Practice</li> </ul>

**Objectives:** Define an organizational structure and functions, and outline necessary measures for protecting against personal injury and other potential risks to campaign staff.

**Description:** The ability of a VMMC campaign to conduct sound HCWM relies heavily on a clear organizational structure and the active participation of trained, informed, and committed staff. As a generator of waste, the entire campaign is responsible for proper storage, collection, transportation, treatment, and disposal of HCW.

It is also very important to define clear HCWM roles and responsibilities for all staff members of a campaign to ensure accountability. It is the responsibility of all departments and/or units to work in harmony to manage HCRW along its journey from *cradle to grave*.

## Training



Implementation Timeline

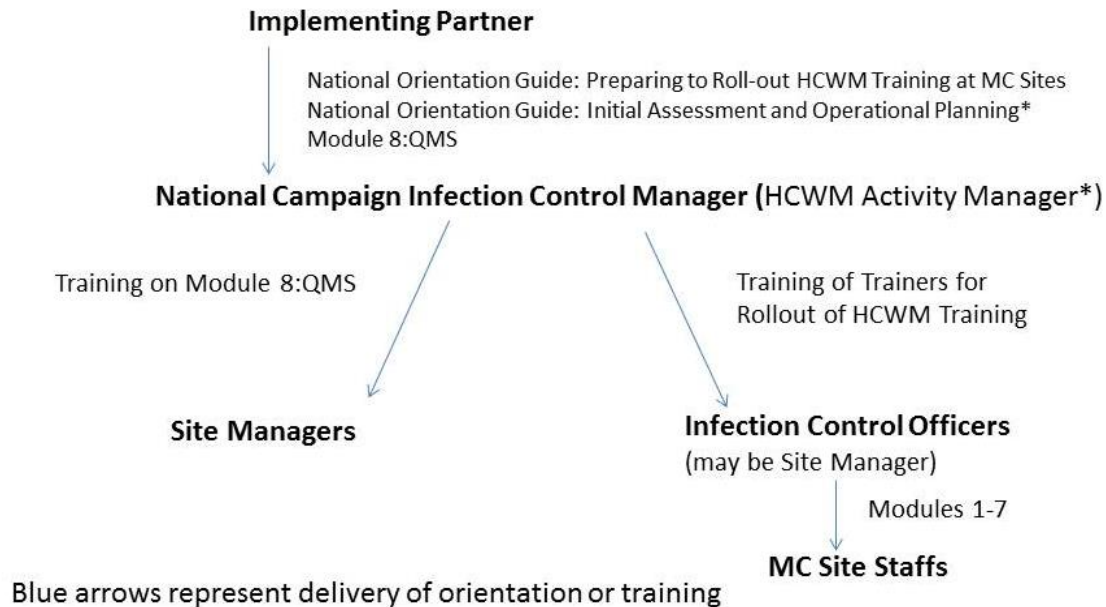


<p><b>SOPs, Guidance Documents and Templates</b></p>	<ul style="list-style-type: none"> <li>• Orientation Timeline Schedule (word file)</li> <li>• Trainer’s Guide (.pdf file)</li> <li>• Customization Guide (.pdf file)</li> <li>• Module Test Questions (word files)</li> <li>• Module Test Answers (word files)</li> </ul>
<p><b>Training Modules</b></p>	<ul style="list-style-type: none"> <li>• National Orientation Guide – Initial Assessment and Operational Planning</li> <li>• National Orientation Guide – Training Roll-out</li> <li>• Training Module 1: Basic Health Care Waste Management (HCWM) for Male Circumcision (MC)</li> <li>• Training Module 2: Worker Health and Safety Best Practices</li> <li>• Training Module 3: Weighing &amp; Recording Health Care Risk Waste (HCRW)</li> <li>• Training Module 4: Requirements for the Transport of Health Care Risk Waste (HCRW)</li> <li>• Training Module 5: Decontamination at the Male Circumcision (MC) Site</li> <li>• Training Module 5X: Decontamination and Sterilization at the Male Circumcision (MC) Site</li> <li>• Training Module 6: Basic Supply Chain Principles for HCWM Commodities</li> <li>• Training Module 7: Incident Reporting</li> <li>• Training Module 8: Quality Management System</li> </ul>

**Objectives:** Train campaign staff on standards, policies, and procedures for HCWM. A training module is also provided for the outsourced transport company to adequately train their staff in the correct collection, weighing, recording and off-site transport of VMMC-generated HCW to the designated treatment and/or disposal facilities.

**Description:** Adequate training is a critical step in the process of implementing the VMMC Toolkit for Health Care Waste Management and achieving an efficient, safe HCWM system. The training program developed for this toolkit is designed to bring staff at all levels of a VMMC campaign to a critical level of competency when it comes to HCWM. The training program is appropriate for all types of VMMC sites and includes: proper identification; segregation, packaging/containerization and labeling; on-site transport; temporary storage; off-site transport; treatment/destruction and disposal of HCW.

Training should be conducted before the start of a campaign to orient staff in HCWM best practices. All staff members, from clinicians to managers, should attend the comprehensive training program. Even those with previous HCWM experience should participate to ensure that they adopt the latest best practices and understand the standards that will be observed by the VMMC campaign. Below is a flowchart to assist in understanding how the training preparation and roll-out should be conducted and which training tools should be used accordingly.



Ultimately, the training curriculum is not only designed to teach the various components of the toolkit, but also to open dialogue about HCWM between stakeholders and staff, to garner ownership, and to instill commitment to the campaign’s responsibility for HCWM.

## Quality Management



Implementation Timeline



<b>SOPs, Guidance Documents and Templates</b>	<ul style="list-style-type: none"> <li>• SOP-PQAU001-002-Incident Reporting</li> <li>• Incident Report Form (word file)</li> <li>• Incident Investigation Report Form (word file)</li> <li>• Incident Management Tracker Log (excel file)</li> <li>• VMMC HCWM Audit Tools (excel file)</li> <li>• VMMC HCWM Monitoring Tool (excel file)</li> </ul>
<b>Training Modules</b>	<ul style="list-style-type: none"> <li>• Training Module 7: Incident Reporting</li> <li>• Training Module 8: Quality Management Systems</li> </ul>

**Objectives:** Provide guidance and tools for VMMC sites to ensure their HCWM system and processes consistently meet the standards set forth in this toolkit and/or the objectives identified in a VMMC campaign's HCWM Plan.

**Description:** This section describes the organizational structure, responsibilities, procedures, processes, and management resources needed to implement a quality HCWM system/program as part of a VMMC campaign. Each site must be able to implement and maintain acceptable HCWM standards and practices for the duration of a campaign. To do so, campaign administrators and site staff must be empowered and equipped to monitor the performance of their HCWM system, identify priority areas for attention and improvement, and be able to take action to address any issues.

This section of the toolkit introduces the quality management (QM) processes that, when correctly implemented, will help campaigns maintain sound HCWM practices across the board:

1. *Monitoring and Evaluation*<sup>1</sup>. Information is needed to assess and guide policy and program strategies; ensure effective operations; meet internal and external reporting requirements; and inform current program decisions as well as future campaigns. Monitoring and evaluation (M&E) provides a framework through which implementing partners and other stakeholders can determine how well their VMMC HCWM system is functioning, and identify and address weak points. While monitoring and evaluation are often viewed as a single process, they are actually

<sup>1</sup> Janet Shapiro. *CIVICUS Monitoring and Evaluation Toolkit*, <http://www.civicus.org/new/media/Monitoring%20and%20Evaluation.pdf> (April 2011). Jody Zall Kusek and Rist, Ray C. The World Bank. *A Handbook for Development Practitioners: Ten Steps to a Results-Based Monitoring & Evaluation System*, <http://www.oecd.org/derec/worldbank/35281194.pdf> (2004).

two distinct processes. Monitoring involves the systematic collection and analysis of information as a project progresses. Evaluation analyzes why intended results were or were not achieved. An effective M&E system requires well-articulated monitoring structures, trained staff, a functioning information network, and appropriate reporting formats and procedures. Monitoring should be established from the beginning of a program or campaign as part of planned HCWM activities.

- The **VMMC HCWM Monitoring Tool** is a monitoring tool available to VMMC campaigns to facilitate the systematic collection of key HCWM performance data across all sites. While the Checklist is applied at the site level on a monthly basis, campaign administrators are responsible for analyzing, reviewing, reporting, and utilizing findings, as well as communicating progress achieved and any necessary corrective actions taken to campaign sites and other stakeholders. The Monitoring Tool contains quantitative data (i.e., numerical, objective data) and qualitative data (i.e., descriptive, subjective data) that together provide a snapshot of the existing HCWM situation and practices (both strengths and weakness) that can be observed at campaign sites. Data gathered over time by the Monitoring Tool will serve as a key input into mid-point and end-of-campaign evaluations. The table below illustrates components and sample indicators included in the Monitoring Tool:

VMMC HCWM Monitoring Tool Components:	Select Quantitative & Qualitative Indicators:
<ul style="list-style-type: none"> <li>▪ On-site collection and transport practices</li> <li>▪ Temporary waste storage room management</li> <li>▪ Waste treatment and disposal practices</li> <li>▪ Occupational safety practices and equipment availability</li> <li>▪ Commodity management</li> </ul>	<ul style="list-style-type: none"> <li>▪ Number of VMMC procedures performed</li> <li>▪ Application of HCWM practices (from collection through treatment/destruction and disposal)</li> <li>▪ Weight of HCW generated</li> <li>▪ Number of needle-stick injuries resulting from poor waste management</li> </ul>

2. *Internal Auditing.* While similar to monitoring, auditing is a more systematic and structured approach to examining how well campaign sites are executing established HCWM standards and practices. Monitoring can indicate the need for a more detailed audit. Auditing allows implementing partners to address critical HCWM risks and compliance issues. Oversight and direction of audit activities is the responsibility of campaign administrators and implementing partners, and should be factored into the VMMC HCWM Plan.

- The **VMMC HCWM Audit Tools** are available to VMMC campaigns to monitor HCWM compliance. The VMMC HCWM Audit Tool is one excel spreadsheet which contains two components: The **Site Level Audit Tool** monitors campaign site HCWM compliance and performance from the point of generation to treatment/destruction and disposal. In addition, the audit tool documents site compliance with policy, management, document and occupational health and safety requirements. The **Off-site Transport Audit Tool** examines compliance across HCWM activities that are potentially contracted or externally sourced by VMMC campaigns, in this case specifically the off-site transport of HCRW. Audits should also be conducted for other outsourced services where applicable, such as laundry, treatment/destruction, and final disposal.
3. *Incident Management.* An incident management system is used for internal and continuous process improvement at the site level. The system does not replace existing emergency response or problem resolution mechanisms. Rather, it provides a means for avoiding potential problems by identifying weaknesses and planning improvements. The system also offers a mechanism through which existing problems can be analyzed to determine the root cause and identify corrective actions. Incident management as part of HCWM is not intended to be a stand-alone system. Should your campaign already have a robust Incident Reporting System in place, you need only integrate HCWM activities into this.
- A **Standard Operating Procedure for Incident Management** (SOP-PQAU001-002 ) is available to campaigns. To further support an effective incident management system, it is highly recommended that sites adopt an **Incident Report Form** (a paper-based tool used by site staff to report incidents) and an **Incident Management Tracker Log** (a tool used by site managers for monitoring and recognizing incident trends and tracking resolution). Lastly, a sample **Incident Investigation Report** template has been provided to document investigation participants, incident severity, problem definition and scope, identified root causes, and proposed corrective actions.

Monitoring, auditing, and incident management are separate processes that can be implemented independent of each other. When fully and correctly implemented, these tools enable campaigns to assess the effectiveness of their HCWM system. Campaigns considering the use of these tools should ensure that each reflects relevant key performance indicators, and suits their program context and objectives prior to implementation. In addition, careful thought should be given to how information collected by the VMMC HCWM Monitoring Tool, VMMC HCWM Audit Tools and Incident Management Tools will flow through the organization and be applied at the various levels of the campaign.



## Overview of HCWM Quality Management Processes & Tools

QM Process & Definition	Resource/Tool	Intended Users	Target Audience	Recommended Frequency
<p><b>MONITORING</b></p> <p><i>Systematic collection and analysis of information as a project, program, or campaign progresses.</i></p>	<ul style="list-style-type: none"> <li>✓ VMMC HCWM Monitoring Tool</li> </ul>	<ul style="list-style-type: none"> <li>✓ Campaign administrators</li> </ul>	<ul style="list-style-type: none"> <li>✓ Campaign sites (HCF)</li> </ul>	<ul style="list-style-type: none"> <li>▪ Monthly reporting</li> </ul>
<p><b>AUDITING</b></p> <p><i>A systematic examination of how well standards and practices are being executed, allowing risks and compliance issues to be addressed.</i></p>	<ul style="list-style-type: none"> <li>✓ Site Level Audit Tool</li> <li>✓ Off-Site Transport Audit Tool</li> <li>✓ Laundry Services Audit Tool (<i>not provided</i>)</li> <li>✓ Treatment/ Destruction Audit Tool (<i>not provided</i>)</li> <li>✓ Final Disposal Audit Tool (<i>not provided</i>)</li> </ul>	<ul style="list-style-type: none"> <li>✓ Campaign administrators</li> <li>✓ Campaign administrators</li> <li>✓ Campaign administrators</li> <li>✓ Campaign administrators</li> <li>✓ Campaign administrators</li> </ul>	<ul style="list-style-type: none"> <li>✓ Campaign sites (HCF)</li> <li>✓ Off-site transport companies</li> <li>✓ Outsourced laundry services providers</li> <li>✓ Outsourced treatment/ destruction providers</li> <li>✓ Outsourced final disposal providers</li> </ul>	<ul style="list-style-type: none"> <li>▪ Depends on the duration of the campaign.</li> <li>▪ At a minimum, administer at the beginning, mid-point, and near the end-point of the campaign.</li> <li>▪ For outsourced services, administration may be more frequent and should be informed by initial audit results</li> </ul>
<p><b>INCIDENT MANAGEMENT</b></p> <p><i>Activities to identify, analyze, and correct problems and hazards.</i></p>	<ul style="list-style-type: none"> <li>✓ SOP-PQAU001-002 Incident Reporting</li> <li>✓ Incident Report</li> <li>✓ Incident Management Tracker Log</li> <li>✓ Incident Investigation Report (Template)</li> </ul>	<ul style="list-style-type: none"> <li>✓ All site staff</li> <li>✓ All site staff</li> <li>✓ Site Managers</li> <li>✓ Site Managers, Infection Prevention &amp; Control Officers, and Directors of Clinical Services</li> </ul>	<ul style="list-style-type: none"> <li>✓ All site staff</li> <li>✓ All site staff</li> </ul>	<ul style="list-style-type: none"> <li>▪ Ongoing/ routine adoption</li> </ul>
<p><b>EVALUATION.</b></p> <p><i>Analysis of why intended results were or were not achieved.</i></p>	<ul style="list-style-type: none"> <li>✓ Results from all QMS tools</li> </ul>	<ul style="list-style-type: none"> <li>✓ Campaign administrators</li> </ul>	<ul style="list-style-type: none"> <li>✓ Implementing partners</li> <li>✓ Donor community</li> <li>✓ National governments</li> </ul>	<ul style="list-style-type: none"> <li>▪ Periodic analysis</li> <li>▪ If possible, conduct mid-point and end-point evaluations</li> </ul>

## Environmental Hygiene



Implementation Timeline



<b>SOPs, Guidance Documents and Templates</b>	<ul style="list-style-type: none"> <li>• SOP-PQAU001-004 : General &amp; Antiseptic Hand Hygiene</li> <li>• SOP-PQAU001-005: Decontamination of General Surfaces</li> <li>• SOP-PQAU001-006: Decontamination of Disposable Metal Instruments</li> <li>• SOP-PQAU001-007: Sterilization of Reusable Metal Instruments</li> <li>• SOP-PQAU001-011: Spill Management</li> <li>• SOP-PQAU001-017: Water Sanitation</li> <li>• VMMC Guidance Document on the Proper Management of Disposable Non-sharp Metal Instruments.</li> <li>• VMMC Guidance Document on Laundry Management</li> </ul>
<b>IEC Materials</b>	<ul style="list-style-type: none"> <li>• Decontamination Process for VMMC Disposable Metal Instruments</li> <li>• Decontamination Process for VMMC Reusable Metal Instruments</li> <li>• Mixing of Sodium Hypochlorite Solution</li> <li>• Personal Protective Equipment (PPE) for Waste Handlers</li> <li>• Spill Management</li> <li>• Hand Hygiene</li> </ul>
<b>Training Modules</b>	<ul style="list-style-type: none"> <li>• Training Module 5: Decontamination at the Male Circumcision (MC) Site</li> <li>• Training Module 5X: Decontamination and Sterilization at the Male Circumcision (MC) Site</li> </ul>

**Objectives:** Outline environmental hygiene best practice at a VMMC site.

**Description:** Health care-associated infections (HCAIs), which are also known as hospital-acquired or nosocomial infections, are a major issue facing health care facilities in resource-limited countries. The leading causes of HCAIs are poor hand hygiene; lack of access to safe water; and unclean, unsterilized instruments, devices and surfaces. To combat HCAIs, SCMS developed a series of SOPs, guidance and IEC materials on proper disinfection of instruments and surfaces, laundry management, and hand hygiene to ensure the safety of patients and health care staff alike.

# TOOLS

## VMMC Initial Assessment Tool

- The VMMC Initial Assessment Tool is a paper-based questionnaire divided into three sections: National, Regional, and VMMC Site-specific.

## Procurement & Commodity Management Tools

- VMMC Guidance Document on HCWM Product Specifications and Requirements
- Basic Forecasting, and Monitoring Tool for VMMC (excel file)
- Training Module 6

## Standard Operating Procedures

*SOP ID Code	SOP Title	Description
SOP-PQAU001-001	HCRW Worker Health & Safety	Details all of the requirements for HCRW Worker Health and Safety, including vaccinations and medical surveillance.
SOP-PQAU001-002	Incident Reporting	Provides standards and procedures for incident reporting, which is a key aspect of monitoring an HCWM system.
SOP-PQAU001-003	Injury on Duty (IOD) & Needle Stick Injury (NSI) Procedures	Details how to manage injuries on duty, as well as needle-stick injuries.
SOP-PQAU001-004	General & Antiseptic Hand Hygiene	Details how to maintain hand hygiene across-the-board as part of infection control.
SOP-PQAU001-005	Decontamination of General Surfaces	Describes best practice regarding cleaning and decontamination of environmental surfaces.
SOP-PQAU001-006	Decontamination of Disposable Metal Instruments	Describes how to decontaminate disposable metal instruments before disposal.
SOP-PQAU001-007	Sterilization of Reusable Metal Instruments	Describes how to decontaminate and re-sterilize reusable metal instruments.
SOP-PQAU001-008	Identification, Segregation & Packaging of HCW	Details the identification of the different categories/streams of HCRW and how to segregate (separate or sort) and package them correctly.
SOP-PQAU001-009	Handling and Packing	Describes handling and packing best practice for packaged HCRW.

SOP-PQAU001-010	On-Site Transport	Describes best practices for transporting HCRW from the point of generation to a temporary storage space at VMMC Site.
SOP-PQAU001-011	Spill Management	Describes how best to clean and manage an HCRW spill.
SOP-PQAU001-012	Storage Criteria & Guidance	Details criteria for the temporary storage of HCRW at a VMMC Site.
SOP-PQAU001-013	Waste Quantification	Describes the need and procedure for weighing waste before it is transported to an off-site treatment/disposal facility.
SOP-PQAU001-014	Document Flow / Control	Describes the control documents in place to record waste volumes, movement of waste and accountability, and how they should be filled out and used.
SOP-PQAU001-015	Health Care Risk Waste (HCRW) Transport Requirements for Drivers & Vehicles	Details the minimum requirements to be met by a transport company in terms of their drivers and their vehicles in order to transport dangerous goods such as HCRW.
SOP-PQAU001-016	Transport Emergency Response	Guides the Transport Team in preparing for and managing emergency situations.
SOP-PQAU001-017	Water Sanitation	Provides guidance on the sanitation of water for use in countries with limited access to safe potable water.

## IEC Materials

	IEC subject
1	Decontamination Process for VMMC Disposable Metal Instruments
2	Decontamination Process for VMMC Reusable Metal Instruments
3	Mixing of Sodium Hypochlorite Solution
4	Personal Protective Equipment (PPE) for Waste Handlers
5	VMMC Health Care Waste Streams
6	Know your Hazard Symbols
7	Injection Safety and Sharps Safety
8	Hand Hygiene
9	Spill Management
10	Emergency Response Plan
11	Health Commodities Storage Best Practices
12	Health Care Risk Waste Storage Sign (.jpg file)

## Supplementary VMMC Guidance Documents

Supplementary VMMC Guidance Documents	
1	VMMC Guidance Document on the Proper Management of Disposable Non-sharp Metal Instruments
2	VMMC Guidance Document on the Protocol for Unusable and/or Expired Pharmaceuticals and Chemicals
3	VMMC Guidance Document on the Protocol for Unused and Expired Male Circumcision Kits
4	VMMC Guidance Document on Laundry Management
5	VMMC Guidance Document on the Minimization, Treatment and Disposal of Waste
6	VMMC Guidance Document on Developing a Health Care Waste Management (HCWM) Plan
7	VMMC Guidance Document on HCWM Product Specifications and Requirements
8	PEPFAR's Best Practices for Voluntary Medical Male Circumcision (VMMC) Site Operations (.pdf file)

## Minimization, Treatment and Disposal of Waste Tools

- Unused and Expired Products Inventory Template (excel file)

## VMMC Training Curriculum

Training Module	Title
National Orientation Guide	Initial Assessment and Operational Planning
National Orientation Guide	Training Roll-out
Module 1	Basic Health Care Waste Management (HCWM) for Male Circumcision (MC)
Module 2	Worker Health and Safety Best Practice
Module 3	Weighing and Recording Health Care Risk Waste (HCRW)
Module 4	Requirements for the Transport of Health Care Risk Waste
Module 5	Decontamination at the Male Circumcision (MC)
Module 5X	Decontamination and Sterilization at the Male Circumcision (MC) Site
Module 6	Basic Supply Chain Principles for Health Care Waste (HCWM) Commodities
Module 7	Incident Reporting
Module 8	Quality Management Systems
Supplementary Guides	Trainer's Guide: <i>Companion to the Health Care Waste Management Training Component of Voluntary Male Circumcision Toolkit</i>
	Customization Guide - <i>Country-level Customization options for the Health Care Waste Management Training Component of the Voluntary Medical Male Circumcision Toolkit</i>
	Orientation Timeline Schedule (word file)
Module Tests	Question Sheet for each module (word files)
	Answer Sheet for each module (word files)

## Quality Management Tools

Monitoring & Evaluation	Incident Reporting
<ul style="list-style-type: none"><li>• VMMC HCWM Audit Tools (excel file)</li><li>• VMMC HCWM Monitoring Tool (excel file)</li></ul>	<ul style="list-style-type: none"><li>• Incident Report Form</li><li>• Incident Management Tracker Log</li><li>• Incident Investigation Report Form</li></ul>