

# TECHNICAL SERIES

## ACHIEVING SUSTAINABLE HEALTH CARE WASTE MANAGEMENT

### Part 1: National Strategies to Improve Health Care Waste Management

Tuesday, December 12

9:00 WAT / 11:00 EAT / 15:00 ICT

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This three-part webinar series, hosted by UNICEF and GAVI in association with TechNet-21, will orient participants on the key actions needed to address health care waste, including national strategies, maturity modeling, facility-level improvements, and the selection of green technologies.



# PART 1: Strategies to Improve Healthcare Waste Management

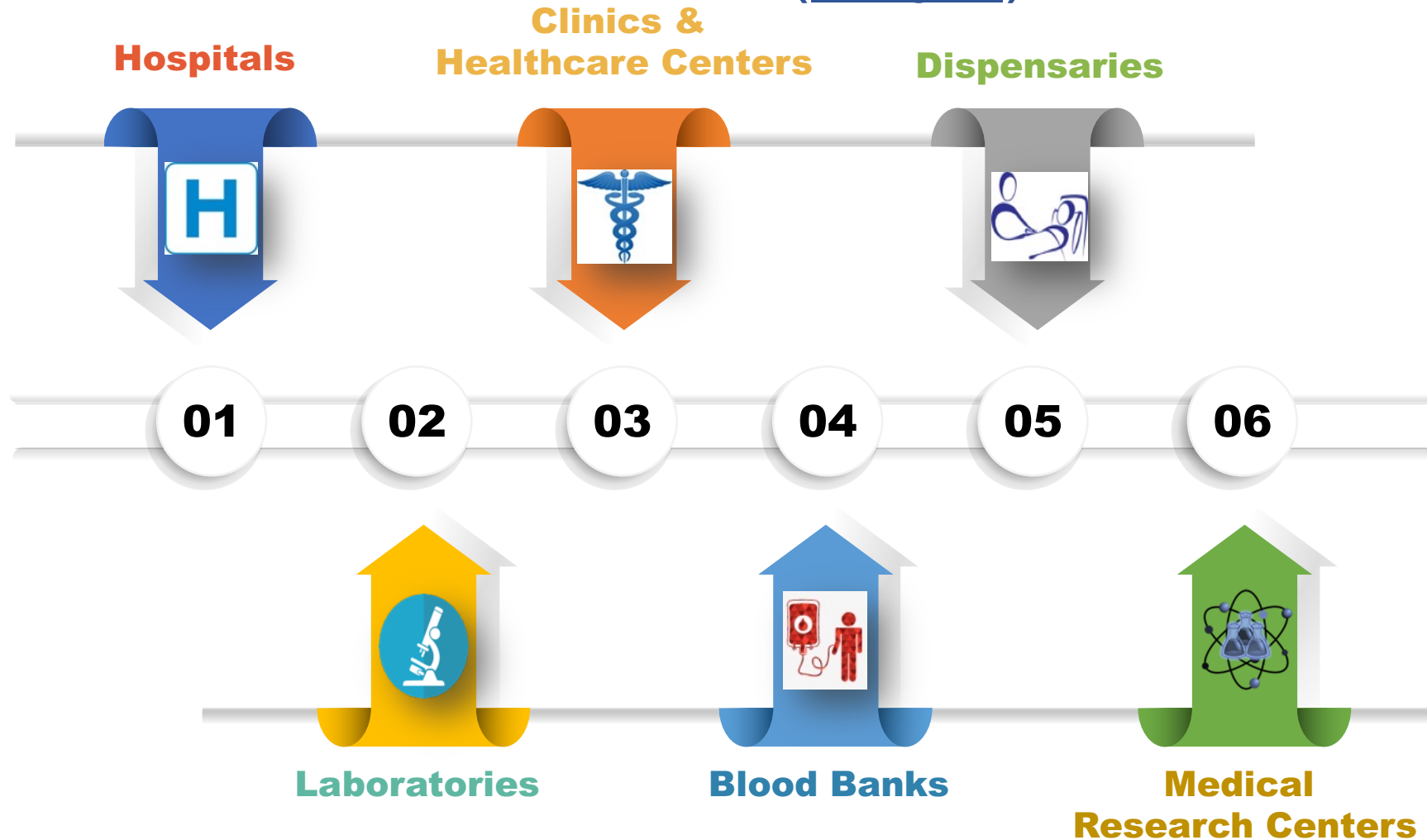


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## Introduction to Healthcare Waste Management and Stakeholders Engagement

Isabelle Cantin, UNICEF EAPRO iSC consultant – Dec 12, 2023

# Sources of Healthcare Waste (Major)



# Key facts

## Climate change and the health sector

Healthcare's climate footprint is 4.4% of the global total

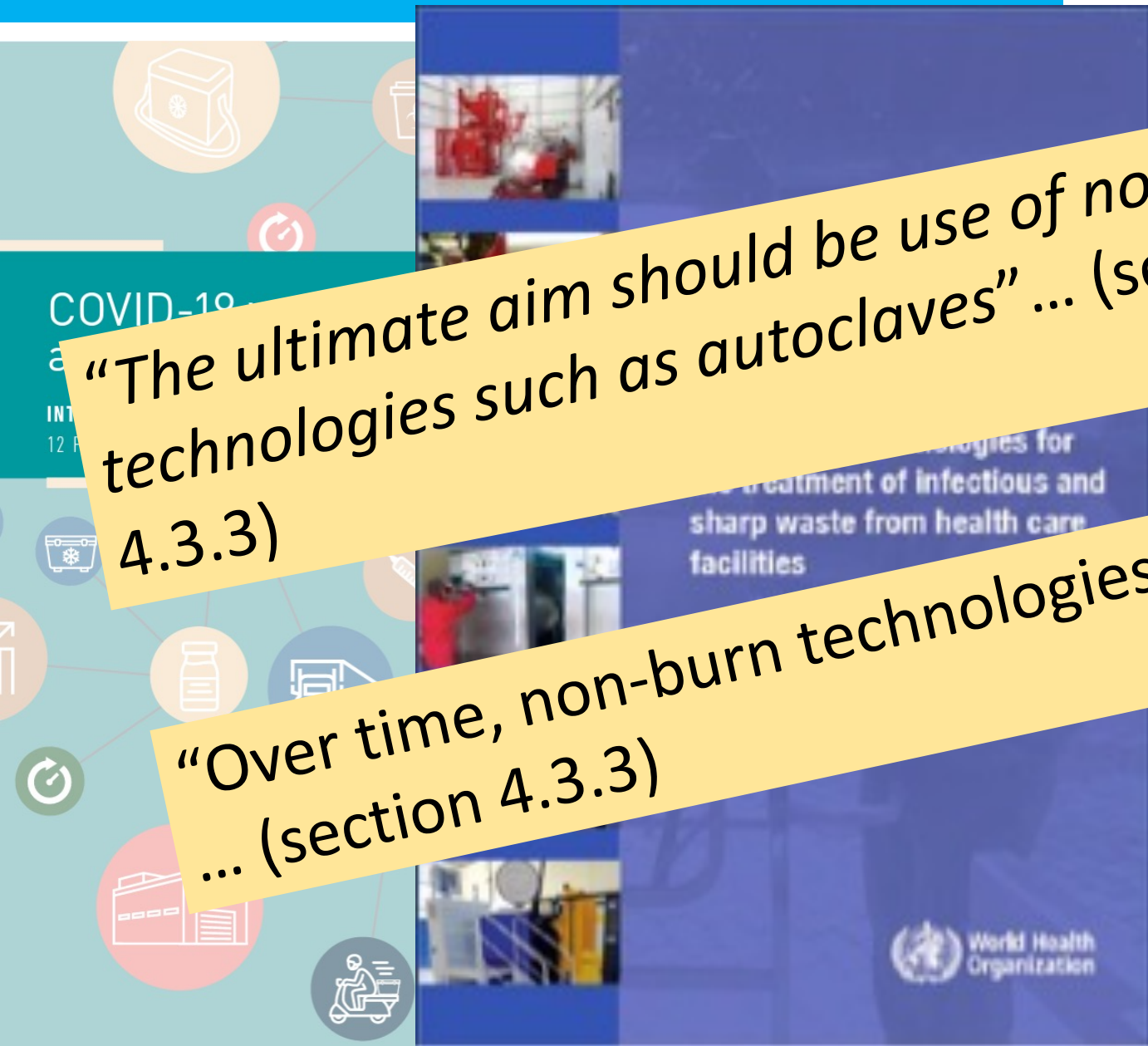
If the global health care sector was a country, it would be the fifth-largest greenhouse gas emitter on the planet.



North America	Latin America & Caribbean	East Asia Pacific	South Asia	Europe & Central Asia	
1.65	0.20	0.26	0.03	0.43	tCO <sub>2</sub> /capital
0.58	0.13	0.60	0.05	0.39	GtCO <sub>2</sub> e total
29	6	30	2	19	% global



**REDUCE  
REUSE  
RECYCLE**



“The ultimate aim should be use of non-burn technologies such as autoclaves” ... (section 4.3.3)

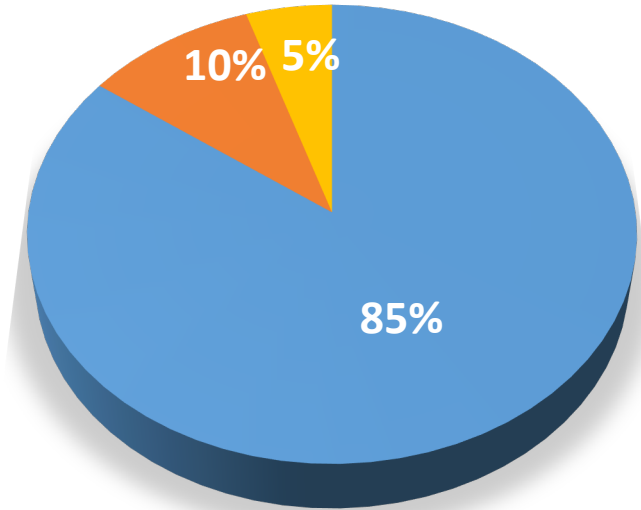
“Over time, non-burn technologies cost less” ... (section 4.3.3)

## GLOBAL ANALYSIS OF HEALTH CARE WASTE IN THE CONTEXT OF COVID-19

STATUS, IMPACTS AND RECOMMENDATIONS



# Waste Composition - Healthcare facilities



General / Domestic waste (non-hazardous waste)



Infectious (hazardous waste)

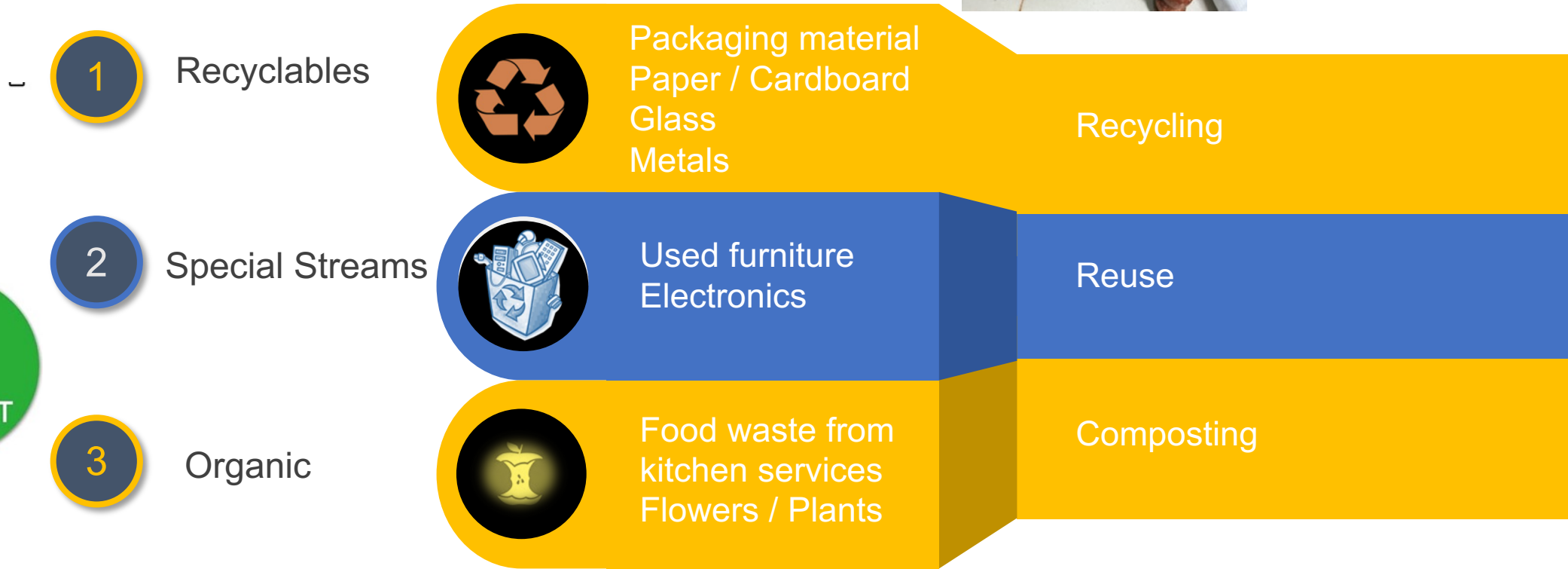


Chemical / Radioactive (hazardous waste)





# General waste (non-hazardous waste)





# Healthcare Hazardous Waste

Chemical Waste



BIOHAZARD



INFECTIOUS

Radioactive Waste



Genotoxic Waste

Immunization and lower health facilities waste

Infectious Waste



Pharmaceutical Waste



Sharps Waste



# LEGAL FRAMEWORK

**Principles,  
Conventions  
Laws &  
Regulations**



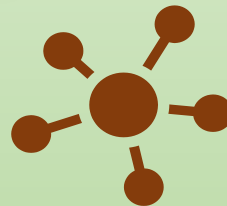
Guiding  
Principles



International  
agreements



National  
Legislation

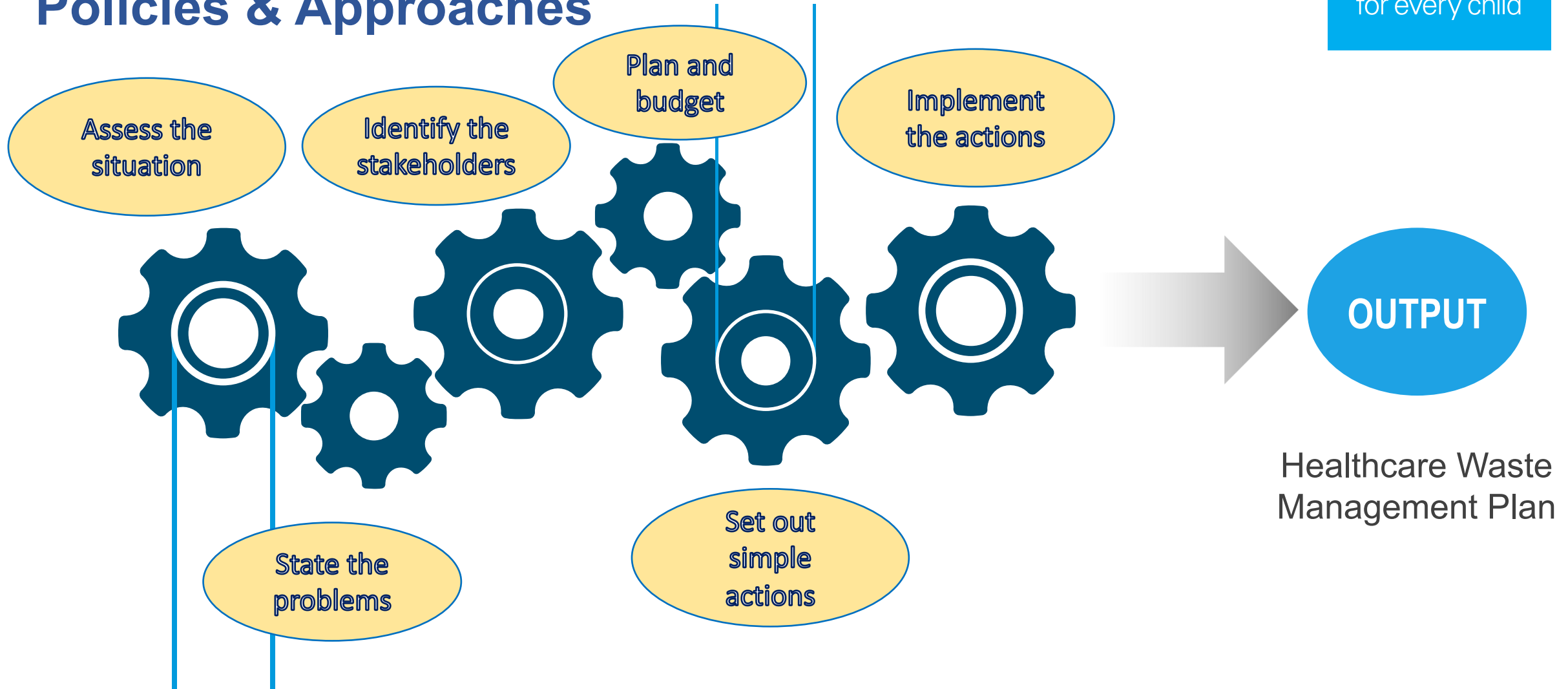


Technical  
Guidelines



Policies &  
Approaches

# Policies & Approaches



Healthcare Waste Management Plan

# WHO are the stakeholders in country?




## PARTNERSHIP

UNICEF HEALTH and WASH sections



**MINISTRY OF HEALTH WELLNESS  
AND THE ENVIRONMENT  
WELLNESS COMMITTEE**



**THE GLOBAL FUND**  
© 2023 The Global Fund to Fight AIDS, Tuberculosis and Malaria



**World Health Organization**



**Global Humanitarian groups**



**unicef**  
for every child

# High level key actions at national level

- Establishing national Healthcare Waste Management committee
- Formal assessment for reflection of situational analysis
- Plan solutions with clear actions, budget needed and timelines
- Select the technology the country will invest in for greener waste management solution
- Clearly establish logistics and allocate resources for operations of waste processing unit
- Committee to drive the solutions plan and review the status in 3 years time

# Tools available to plan HCWM actions

- WHO Rapid Assessment tool – RAT
- WASHFIT tool of WHO and UNICEF
- Package designed by UNICEF for countries to comprehensive assessment and solutions

## Key Challenges

- Under resourced HCWM budgets
- Poor understanding of HCW risks
- General lack of waste management services

## Key Bottlenecks

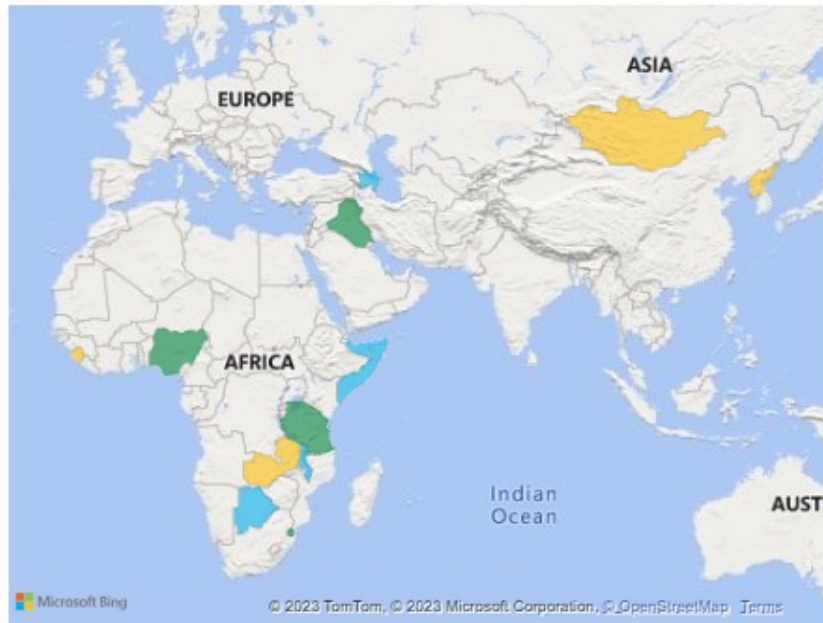
- Lack of Code of Practice
- Healthcare Waste data gaps
- Lack of Training
- Lack of safe waste treatment

## Key Actions

- Develop regional HCWM Code of Practice
- Develop online HCWM training
- Assemble HCWM Regional teams

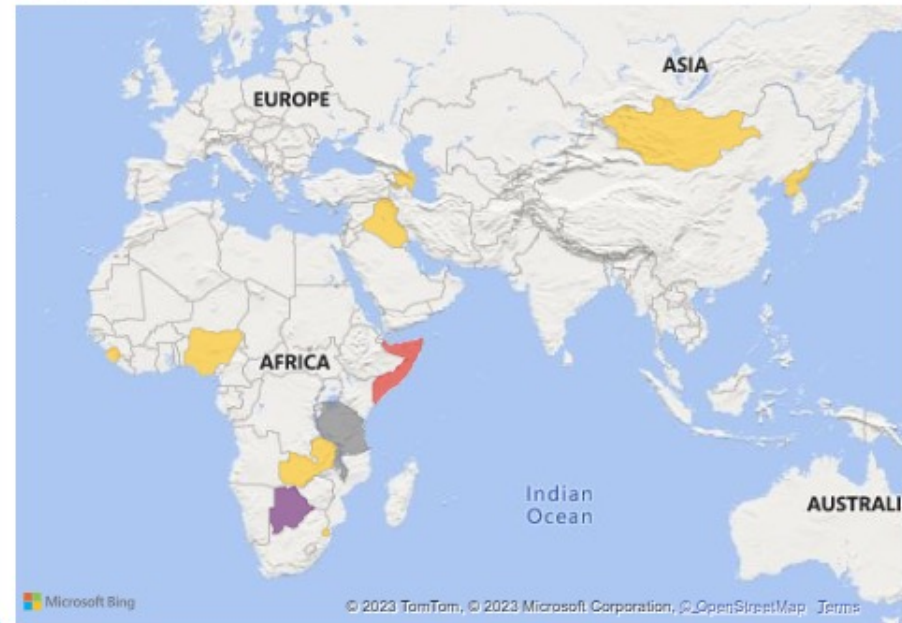
## Current HCWM Assessment Status

● Complete ● In Progress ● Pipeline

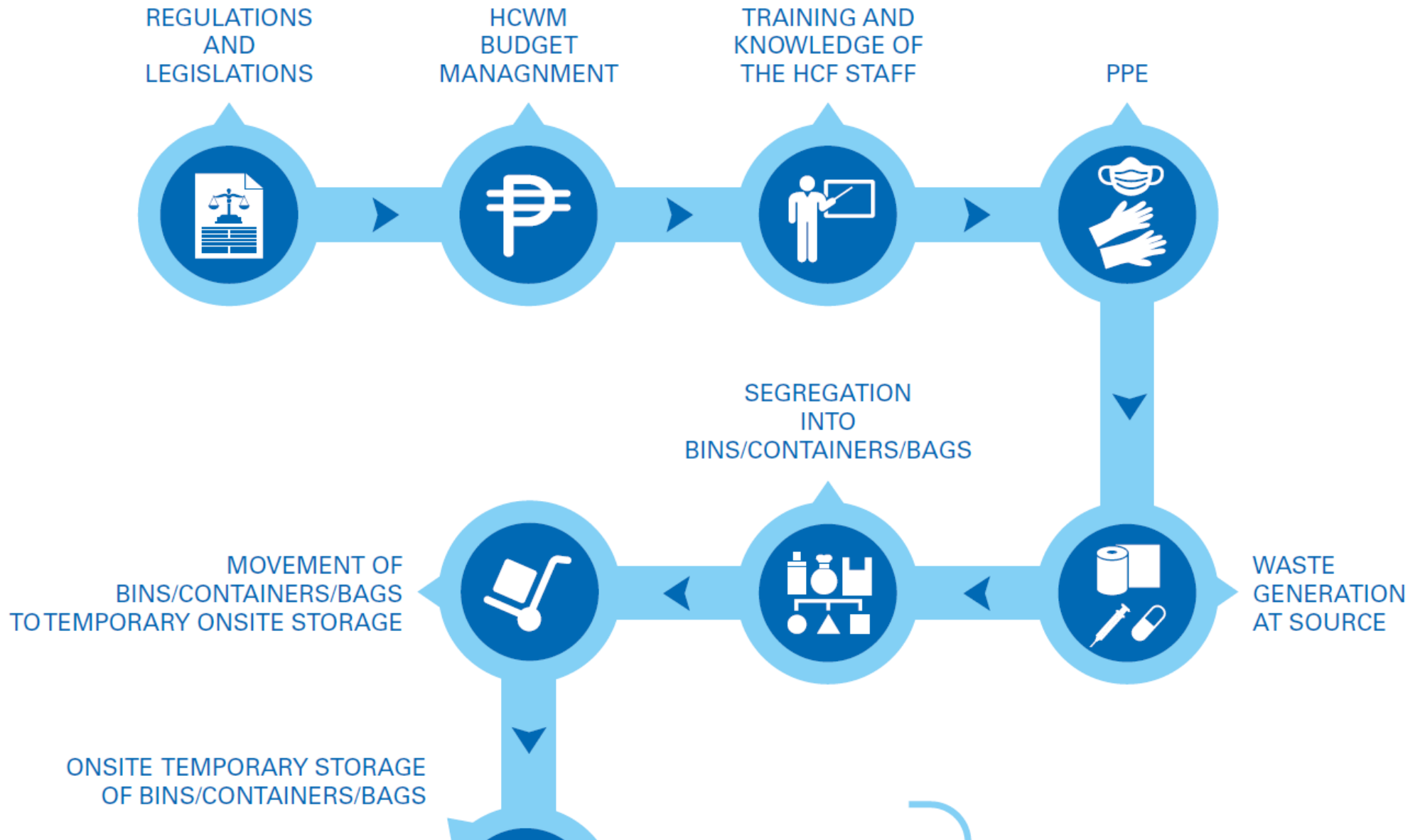


## Gavi Maturity Score by Country

● 1 ● 2 ● 3 ● 4 ● 5 ● TBC

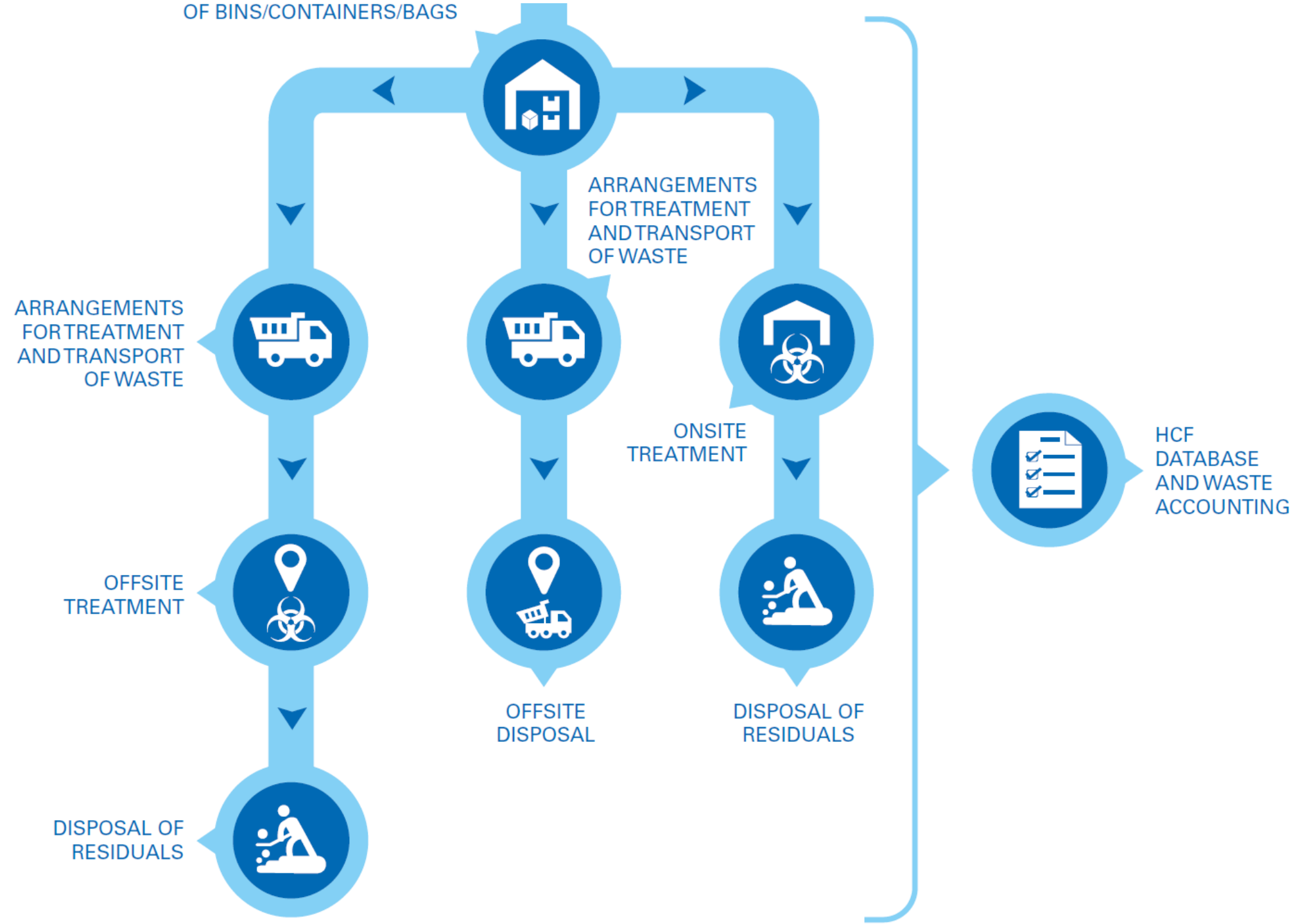


# Structure of assessment and framing the solutions





OF BINS/CONTAINERS/BAGS



## Documenting best practices as part of assessment

HCWM step	Best practice in Botswana		Which HCF(s) demonstrated best practice
	Yes	No	
<b>Regulations and legislations</b>	Yes		Riverside Hospital (Francistown), Riverside Dialysis and Kidney Centre, Palapye demonstrated good dissemination of Code of Practice amongst HCF staff
<b>HCWM budget management</b>		No	No evidence of budgets specifically for HCWM
<b>Training and knowledge of HCF staff</b>	Yes		Orapa Mine Hospital (private) and Riverside Hospital demonstrated comprehensive training materials and documentation of those trained
<b>PPE</b>	Yes		HCF staff at Maun Hospital (private) all had the correct PPE and informed that it was always available
<b>Waste generation at source</b>	Yes		Orapa Mine Hospital (private) had a robust and comprehensive waste tracking system

## Reflection of status and setting the targets

### Step 1: Regulations and legislations

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HCWM step	Regulation and legislations
Current status	<p>Applicable regulations are present for HCWM in Botswana with a clear code of practice for clinical waste being applicable.</p> <p>However, there was a lack of adoption of the regulations and code of practice in more than 50% of the HCFs assessed due either to lack of training or knowledge of such regulations and associated code of practice.</p>
Target	<p>Have a regulatory framework that meets global standards, which is disseminated to all HCFs levels.</p> <p>Competent staff at all levels (from MOH to HCFs) are assigned responsibility for HCWM.</p>

# Action plan

## Activities

Key activities to achieve the target

1. Nominate a focal person (an EHO) for HCWM within the Environmental and Occupational Health Division of the MoH with potential additional resources.
2. Establish a HCWM working group within the MOH to drive HCWM recommendations and actions arising from this initiative (see Annex D for proposed Terms of Reference for the HCWM Working Group).
3. Assign EHOs at DHMTs for oversight planning and management of HCW, as well as monitoring of HCF compliance.
4. Review and update (if required) the Code of Practice and ensure wider dissemination, including the following policy approaches<sup>1</sup>:
  - Medical waste incineration phaseout in line with the Stockholm Convention;
  - Mercury free healthcare policy in line with Minamata Convention;
  - Plastic healthcare waste recycling, including mandatory syringe separation;
  - New regulatory framework on the role of the private sector with potential for PPP;
  - Updated medical waste local storage, processing, and off-site transportation procedures:

## Technology, capacity building and financial needs to deliver the action plan

<b>HCWM step</b>	<b>Regulation and legislations</b>
<b>Technologies required</b>	
Applicable technologies to support the activities	Online portal for HCWM documents with access by all HCWM personnel
Training and capabilities needed for new technologies	Recruit new HCWM personnel for EHO roles at DHMT level where they are not currently available. HCWM training for all HCWM personnel as per Step 3 Training and Knowledge
Finance Model for CAPEX and OPEX	Funded by the Government of Botswana: <ul style="list-style-type: none"><li>• Employment of additional staff</li><li>• In-house web services for online portal</li></ul>

## Level of effort needed

Level of effort	
Regulatory framework	<p>Fulltime roles:</p> <ul style="list-style-type: none"><li>• MOH focal person coordinate review and update of Code of Practice, establishment of HCWM Working Group within MoH and HCWM improvement initiatives</li><li>• MoH web manager for development of online portal</li></ul>
Staff / Personnel	<p>Fulltime roles:</p> <ul style="list-style-type: none"><li>• MOH focal person proposed from current staff (may require additional staffing in MoH to cover old role)</li><li>• New EHOs at DHMT level</li></ul>
Tools and equipment	Web services
Schedule	
Year 1	<ol style="list-style-type: none"><li>1. Nominate a HCWM focal person in MOH and consider increasing staff</li><li>2. Establish a HCWM working group within the MOH</li><li>3. Assign EHOs at DHMTs</li><li>4. Review and update Code of Practice</li><li>5. Establish an online HCWM "portal"</li></ol>

# Budgeting the needs

## Regulations & Legislations

Budget	
Staff/Personnel	Annual cost of senior EHO within MoH @ US\$10,000/annum Annual cost of an EHO within each of the 27 Districts/DHMTs @ US\$8,000/annum = US\$216,000/annum
Tools and equipment	Assume US\$50,000 for online portal including maintenance over the 10-year period, leveraging current MoH systems
<b>Total 10-year budget</b>	<b>US\$2,310,000</b>

## Classifying the budget...

HCWM step	Staff/Personnel	Tools and equipment	Engineering and construction works	Plant and machinery	Total 10-year budget
1. Regulations and legislations	Annual cost of senior EHO within MOH @ US\$10,000/ annum	Assume US\$50,000 for online portal including maintenance over the 10-year period			<b>\$2,310,000</b>
	Annual cost of an EHO within each of the 27 Districts/DHMTs @ US\$8,000/ annum = US\$216,000/ annum				



## Scheduling the action plan

HCWM steps	Activity	Year 1	Year 2	Year 3	Year 3 -10
<b>Step 1</b>	<b>Regulations and legislations</b>				
1.1	Nominate focal person (an environmental health officer) for HCWM within the Environmental Health Unit of the MOH with potential additional resources	Nominate HCWM focal person in MOH	Consolidate HCWM roles at MOH and DHMT level	Continued operations with enhanced and strengthened institutions, updating of regulations and code of practice to ensure alignment with global standards	
1.2	Establish a HCWM working group within the MOH to drive HCWM recommendations and actions arising from this initiative	Establish a HCWM working group within the MOH			
		Assign EHOs at DHMTs Review and update code of practice			
1.3	Assign EHOs at DHMTs for oversight planning and management	Establish an online HCWM "portal"			

# Global overview of HCWM action plan



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Continent

All

Geographic Region

All

Country

All

Regional HCWM Overview

HCWM Roadmap

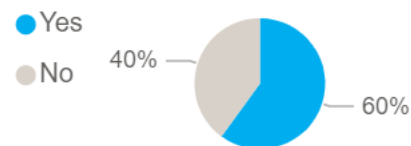
HCWM Analytics

Regulations & Training

Onsite HCWM

Collection & Treatment

Roadmap En



## Healthcare Waste Management Roadmap

184

Planned WT Plants

\$141.13M

Total Roadmap Cost

### Roadmap Investment

Country	Population (2022)	Total Number of HCFs	Roadmap Budget (USD)	Roadmap Investment Per Capita (USD)
Azerbaijan	10,412,651		\$20,935,000	\$2.01
Botswana	2,675,352	739	\$25,930,000	\$9.69
Malawi	20,931,751	9,498	\$43,682,500	\$2.09
Somalia	18,143,378	1,074	\$29,835,000	\$1.64
Somaliland	4,500,000		\$20,748,500	\$4.61

### First Actions (0-12 Months)

- A 1 Assign EHOs at MoH and DHMT level with clear HCWM mandate
- A 2 Bolster as needed MoH HCWM Working Group with responsibilities
- A 3 Detailed waste composition and quantifications at HCFs
- A 4 Detailed waste composition and quantifications at HCFs
- A 5 Detailed waste composition and quantifications at HCFS and outreach programme
- A 6 Detailed waste composition and quantifications at selected HCFS
- A 7 Online Portal for HCWM documents, SOPs, guidelines etc through current MoH website

Continent

All ▼

Geographic Region

All ▼

Country

All ▼



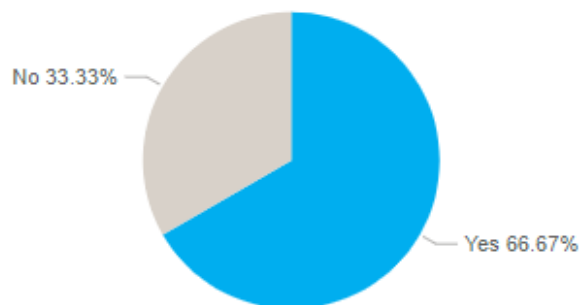
## Governance

## Training



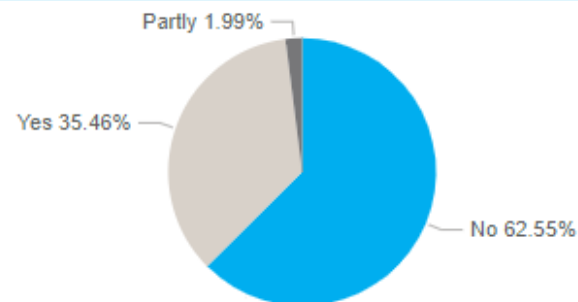
### Is there an active HCWM Committee?

- Yes
- No



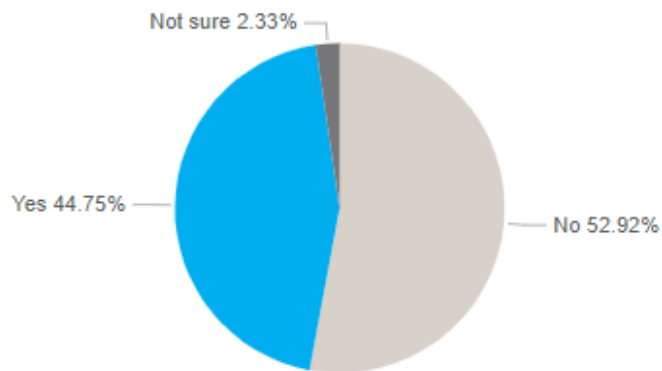
### Is the training of healthcare workers available regarding healthcare waste management?

- No
- Yes
- Partly

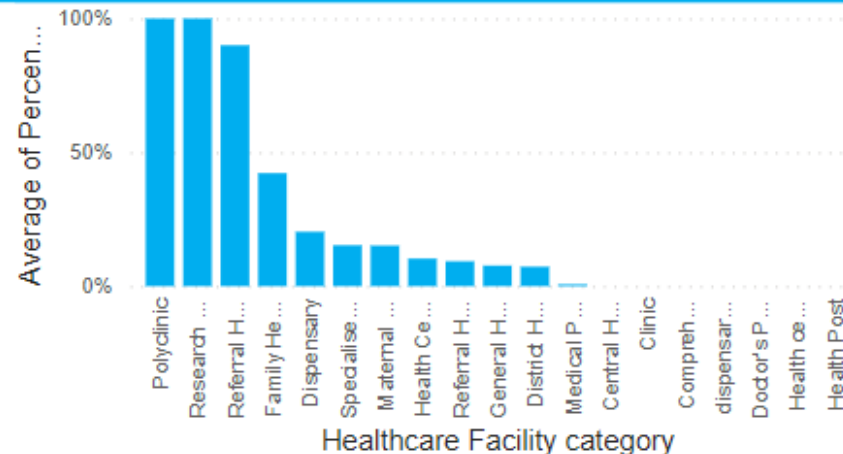


### Are national HCWM regulations / Code of Practice available and enforced?

- No
- Yes
- Not sure



### Uptake of HCWM Training



Continent

All

Geographic Region

All

Country

All

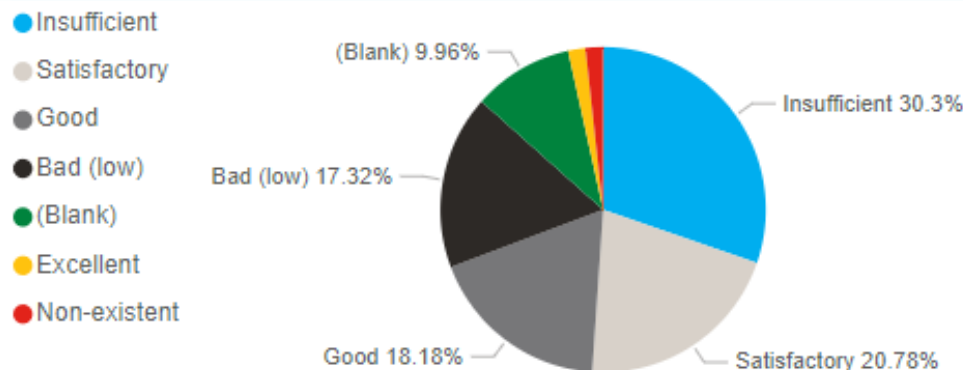
HCF Category

All

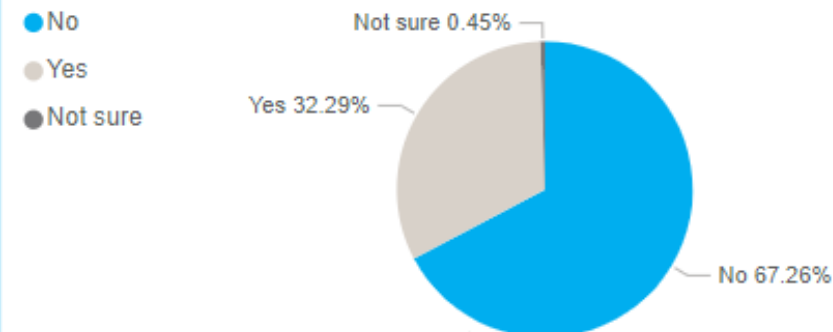


# Onsite Healthcare Waste Management

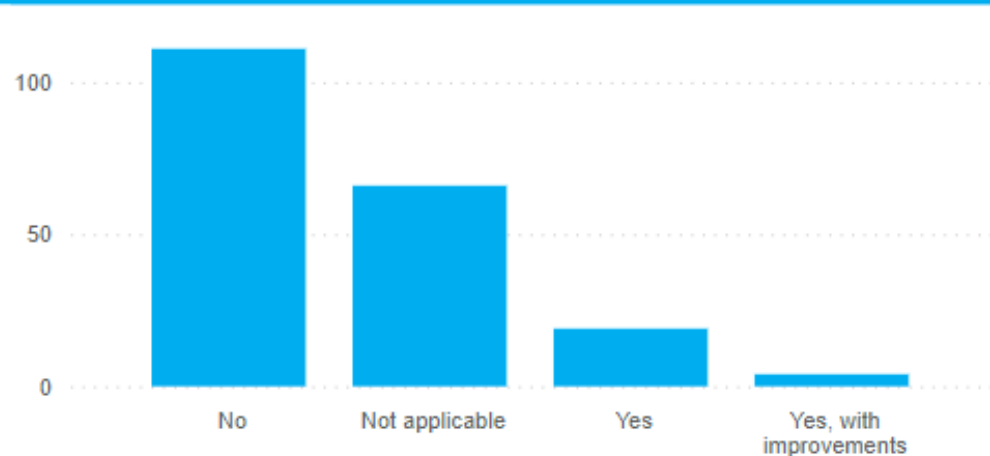
## How is the quality of waste segregation?



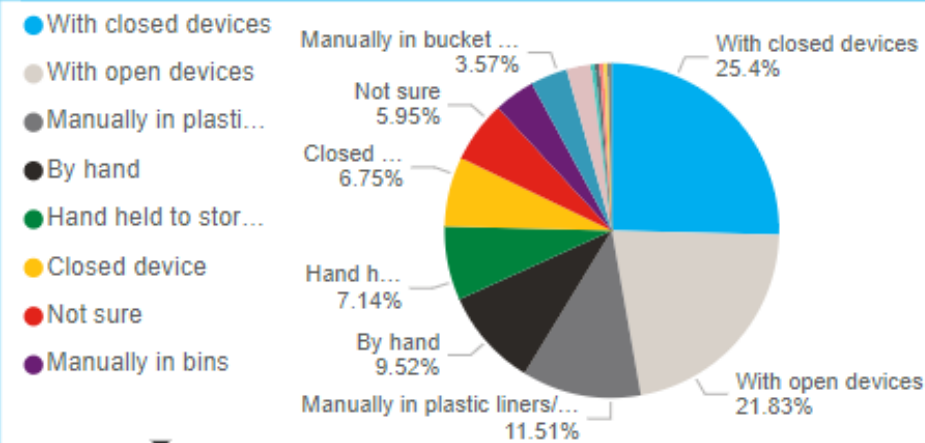
## Is sufficient Personal protective equipment for the handling of waste available?



## Is the storage area safe and in accordance to national and international rules?



## How do you move the healthcare waste on-site? (transport)



Continent

All 

Geographic Region

All 

Country

All 

HCF Category

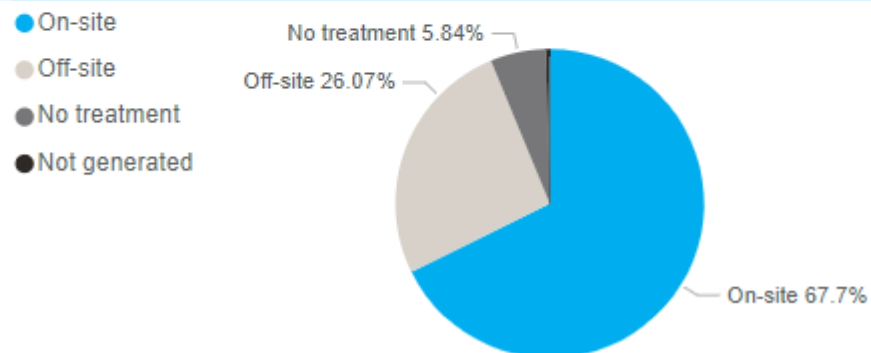
All 



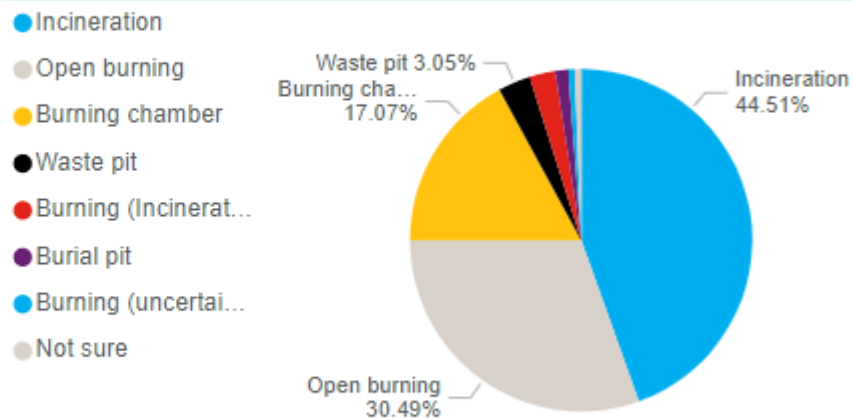
# HCW Collection & Treatment



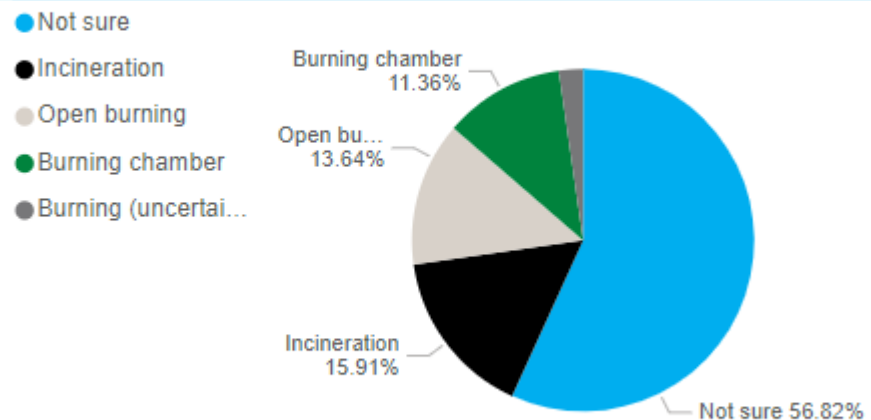
## Where is Infectious Waste Treated?



## How is Infectious Waste Treated On-site?



## How is Infectious Waste Treated Off-site?



# Health Care Waste Management Road Map Development

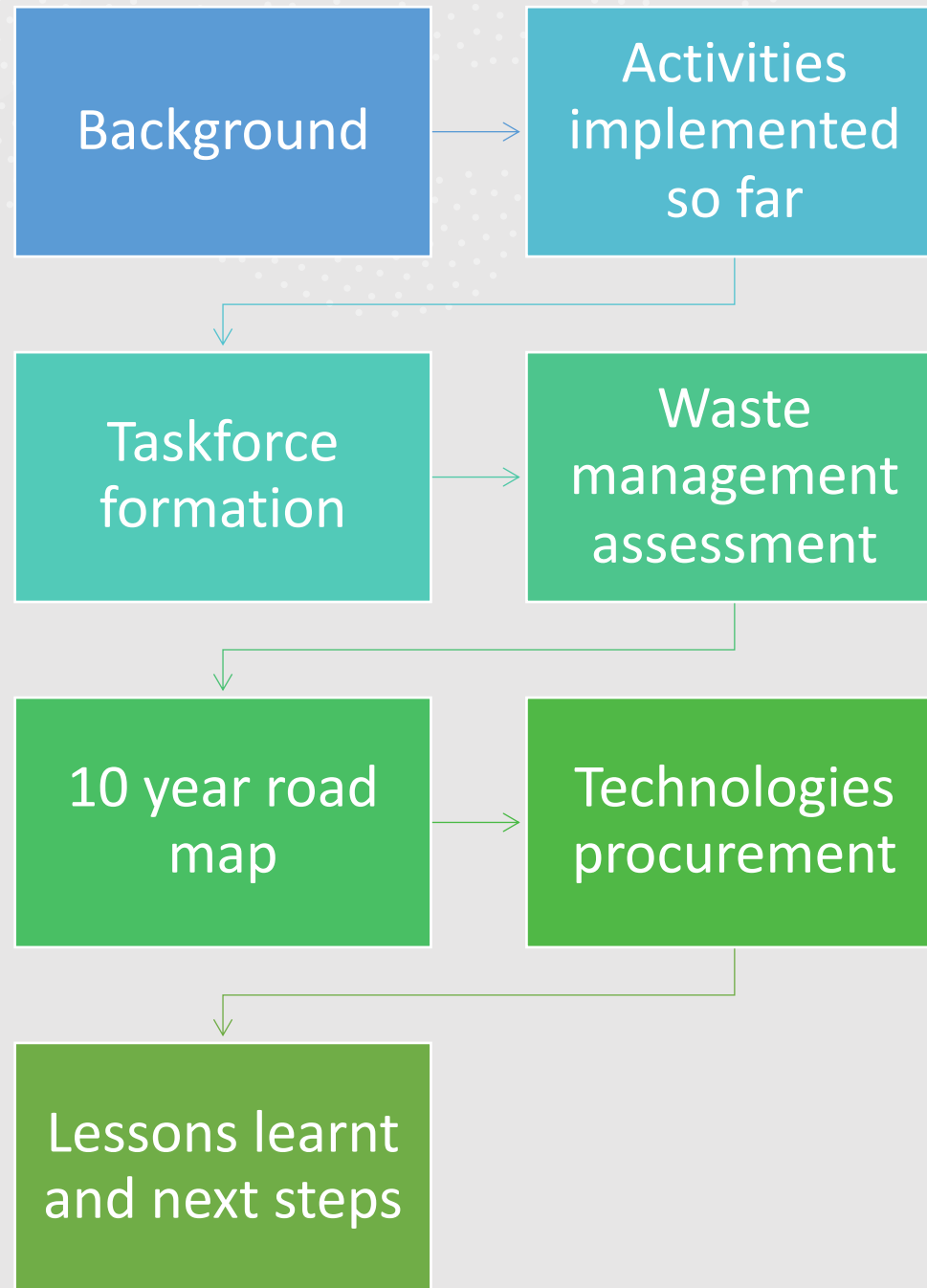
Patricia Darikwa

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Somalia  
12 December 2023*



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# Slides Arrangement



# Background to the Project



SUPPORT FROM GLOBAL  
FUND AND WORLD BANK  
FOR WASTE MANAGEMENT



SUPPORT FROM HQ ON LTA



CONTRACTUAL PROCESSES  
WITH CA



NEED FOR GOVERNMENT  
LEADERSHIP



ACTION TAKEN TO DATE



RECOMMENDATIONS



# Activities Implemented



SET UP OF NATIONAL TASK  
FORCE



AGREEMENT ON TORS FOR  
TASK FORCE



WASTE MANAGEMENT  
ASSESSMENT



DEVELOPMENT OF A 10  
YEAR ROAD MAP FOR THE  
COUNTRY FOR WASTE  
MANAGEMENT



TRAINING OF TRAINERS ON  
WASTE MANAGEMENT



PROCUREMENT OF  
TECHNOLOGIES FOR WASTE  
MANAGEMENT AND NEED  
TO MEET ENVIRONMENTAL  
SAFEGUARDS

# Task Force Somalia and the TORs

- Established by the government
- TORs drafted by Crown Agents (CA) and endorsed by government
- Taskforce mandate
  - Provide a 'steering' function for partners preparing recommendations and solutions for improving HCWM in Somalia with the subsequent endorsement of prepared actions
  - Liaise with relevant Government agencies and departments as required to support HCWM improvement initiatives and programs
  - Liaise with the government, relevant potential Donors, and Funders on securing funds for HCWM improvement activities
  - Endorse annual national and state-level relevant logistics plans for transportation, destruction, and disposal of healthcare waste
  - Endorse relevant technologies suitable to the country context to procure and deploy at approved/recommended locations

# Continued.....

- Review annual maintenance needs to operate installed HCWM technologies and endorse the budget needed for maintenance
- Prepare the annual budget needed for HCWM activities including logistics, procurement, maintenance, and training needs.
- Prepare annual training needs of health workers in handling and managing the HCW at the health facility level.
- Supervise the implementation of HCWM guidance provided for health facilities (segregation, storage, transport) and disposal practices at designated sites.
- Prepare quarterly and annual HCWM reports detailing Healthcare Waste generation quantities and treatment/disposal quantities.
- Review quarterly HCWM reports and identify required actions for improving HCWM in Somalia with a subsequent delegation of actions for such improvements

# Waste Management Assessment



HCWM assessment was carried out between January and March 2023 with representatives from the FMOH, State MOH (SMOH) and Crown Agents.



Assessment teams were deployed to 24 HCFs throughout Somalia with the results presented in this Assessment Report



The HCWM assessment was based on the internationally acknowledged World Health Organisation (WHO) Rapid Assessment Tool (RAT) which has been adapted by Crown Agents to the Somalia context through consultation with the FMOH and key stakeholders.



The data and information were captured electronically and will be held by the FMOH for future use.



Key findings from the assessment are Available on request

# 10 Year Road Map

## First Actions (0-12 months)

### A. Put in place stronger HCWM institutional structure, carry out detailed studies for interventions and install new waste treatment capacity

- A.1 Assign FP at FMOH and bolster the SMOH level with clear HCWM mandate
- A.2 Establish HCWM Task Force with responsibilities and mandate
- A.3 Prepare HCWM Code of Practice
- A.4 Prepare and roll out HCWM training system
- A.5 Upgrade onsite HCF disposal of HCW
- A.6 Detailed waste composition and quantifications at selected HCFS
- A.7 Self assessment for HCFs system with centralized reporting
- A.8 Procure new waste treatment plants for 5 key hospitals (as demonstrators)
- A.9 Upgrade incinerators where applicable
- A.10 Develop waste collection / logistics systems

## Short Term (1 – 2 years)

### B. Improve HCWM systems across all HCFs, SMOHs and within FMOH

- B.1 Implement waste tracking system
- B.2 Establish and fund HCWM budgets at SMOH level with budget management tools
- B.3 Review and update PPE specifications with subsequent procurement
- B.4 Explore waste recycling opportunities
- B.5 Explore opportunities for waste minimization whilst improving segregation with training and equipment
- B.6 Upgrade onsite temporary storage facilities
- B.7 Continue upgrading onsite HCF disposal of HCW
- B.8 Phase out incineration and continue installing new waste treatment plants

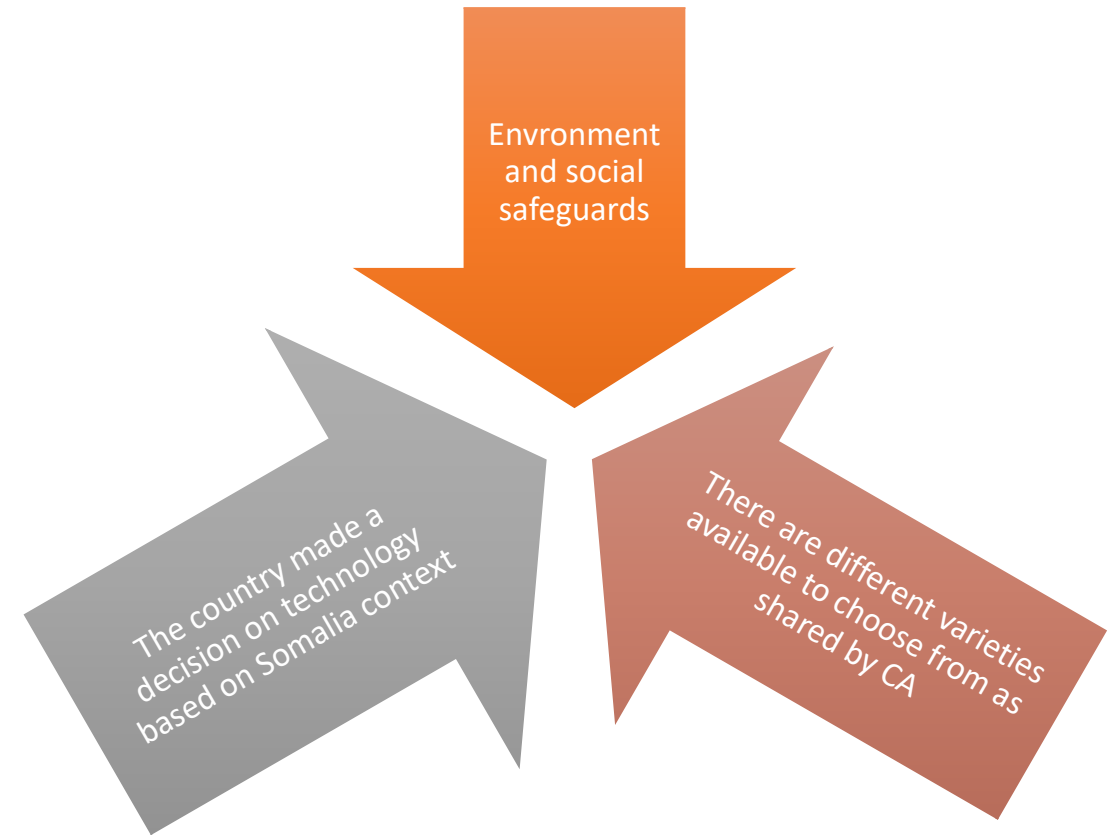
## Medium term (3 - 10 years)

### C. Consolidate improved HCWM systems and phase out incineration plants

- C.1 Consolidate waste tracking system and operationalise across all HCFs
- C.2 Maintain HCWM budget funds including robust monitoring and reporting
- C.3 Continue phase out of incineration plants replacing with new waste treatment plants
- C.5 Continue upgrading onsite HCF disposal of HCW
- C.6 Consolidate waste collection services and management with monitoring and reporting
- C.7 Implement waste recycling schemes to reduce waste quantities
- C.8 Finalise upgrade of onsite temporary storage and maintain facilities

Continuous monitoring, regulatory frameworks, and economic incentives are needed to steer the sector in the desired direction

# Purchasing of relevant Technologies considerations





Waste Disinfection, reduction,  
recyclable



# Lessons learnt and way forward



Waste management is critical for quality health services and waste has been on the increase in most health services



Government participation is critical for sustainability



The road map needs endorsement at highest level for follow up and implementation



Technology choices and LTA preparations



Somalia proceeding to conclusion of procurement and roll out of training in Waste management



Sustainability and running costs???



Thank you.

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Health Care Waste Management Maturity Model

# HEALTH CARE WASTE MANAGEMENT BEYOND IMMUNISATION PROGRAMS: GUIDANCE FOR PROPOSAL PLANNING

Overview of Guidance Document

# HEALTH CARE WASTE MANAGEMENT IN IMMUNISATION PROGRAMS: GUIDANCE FOR PROPOSAL PLANNING

GUIDANCE DOCUMENT



How HCWM is linked to iSC2 Strategy & introduction to the Guidance

# Introduction



# iSC2 Strategy highlights HCWM as an investment priority

## How the iSC Strategy 2021-2025 is linked to Waste Management

### Areas of Opportunity within the Investment Priorities

Data visibility and use	Capacity development and professionalization	Fundamental infrastructure	Strategic planning	System optimization and segmentation	Smart integration and harmonization
Digitize and integrate information systems (eLMIS, Barcoding, Track & Trace)	Supply chain competencies and structures	Continue support to maintain adequate CCE capacity	Conduct comprehensive supply chain planning	Continuously review and optimise existing systems	Conduct analysis and identify opportunities for integration
Collect, analyse, and use data	Strengthen and apply skills	Integrate temperature and other SC data	Consider various financing approaches	<b>Improve processes, from forecasting to waste management</b>	Develop guidance and evidence for integration
Active vaccine & syringe stock management, including wastage tracking & mitigation	Identify effective incentives & motivators	Invest in appropriate SC resources, either building capacity or outsourcing	Strengthened national and subnational governance mechanisms	Apply approaches from other settings and sectors	Connect broad community of SC actors at national and sub-national levels
Establish a monitoring & accountability framework	Create healthy work environments			Strengthen data-driven forecasting and agile supply planning	

System optimization and segmentation is situated within the iSC 5.0 strategic vision, and one of the focus areas is waste management

Gavi's Immunisation Supply Chain Strategy highlights the importance of Health care waste (HCW) as a growing concern across all health areas, including immunisation.

Despite most countries having adopted WHO standards and international agreements for HCWM policies are often not strictly followed

Research<sup>1</sup> indicates insufficient adherence to good HCWM practices in many places.

<sup>1</sup>Udofia E., Fobil J., and Gulis G., "Solid Medical Waste Management in Africa," African Journal of Environmental Science and Technology 9 (March 30)

# Understanding HCWM Policy and Practice



# Common barriers and challenges to Healthcare Waste Management (HCWM).



- » Constrained financial resources
- » Complicated change management with new equipment, practices and technology
- » Limited awareness or knowledge on best practices and HCW risk
- » Obsolete technologies, equipment or practices
- » Supportive supervision lacking HCWM
- » Sharps management during campaigns
- » Missing links to a systemic approach across all sectors for HCWM

# People, Processes and Technology are the three main areas in HCWM

HCWM must be considered from a systems perspective and use a broad approach to leverage resources, technologies, and capacity across ministries and government entities involved in WM.



Identify your **PEOPLE** (and expected core competencies of cadre of staff) and human resources needed to train staff and build awareness of the importance of HCWM; increase adherence to and understanding of policies and guidelines; and show commitment to high-quality HCWM.



Identify what **PROCESSES** need to be revised or updated, such as national policies, budget, guidance; map out the flow of HCW between clusters of facilities and to treatment and disposal sites; assess the effectiveness of supervision.



Identify the **TECHNOLOGIES** that are available currently for the steps of HCWM, including segregation, potential links to private-sector resources; and clarify the priorities for the HCWM system overall.

# Six sub areas to assess the maturity level of the HCWM system

<p><b>PEOPLE</b></p> 	<ol style="list-style-type: none"><li>1. Awareness, training and supportive supervision</li><li>2. Adherence and compliance</li></ol>
<p><b>PROCESSES</b></p> 	<ol style="list-style-type: none"><li>1. National policy/strategic plans</li><li>2. Budget and planning</li><li>3. Practical guidance</li></ol>
<p><b>TECHNOLOGY</b></p> 	<ol style="list-style-type: none"><li>6. Technology and equipment availability and use</li></ol>



	AREA	LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4	LEVEL 5
PEOPLE	<b>Awareness, training and supportive supervision</b>	Low level of awareness of risk associated with HCW (less than 40%)	Moderate awareness of risk associated with HCW; curriculum developed but not fully rolled out (implemented in 41%–50% of facilities)	A significant proportion of health workers and waste handlers (51%–75%) are trained on the risks associated with HCW and clear guidance on HCWM is available at most	High level of awareness of HCW risk. 76%–85% health care workers and waste handlers have undergone training and have access to on-going training	More than 85% of health workers and waste handlers are trained and are aware of risks associated with HCW and demonstrate BEP. HCWM is included in supportive supervision activities
	<b>Adherence and compliance</b>	Little insight into adherence of best practices for HCWM	Have insight into adherence of best practices (SOPs and job aids) but not practiced (less than 50% of facilities adhere and comply)	Adhered to in at least 50% of the facilities; minimum compliance in place.	Significant compliance to the best HCWM practices. M&E framework in place with some tracking of adherence	Country fully adheres to the best practices; M&E framework tracks adherence to policies and guidance
PROCESSES	<b>National policy/strategic plans</b>	Policy is needed or currently being developed. No recent HCWM assessment carried out (within the last 5 years)	Policy developed and/or reviewed within the last 5 years. HCWM assessment carried out within the last 5 years	Policy disseminated and adopted	Country can show that the policies and guidelines are fully implemented at all levels of the system	Policies widely adopted across the country. Evidence that HCWM performance gaps are addressed in strategic planning and financing mechanisms at national and sub-national levels.
	<b>Budget and planning</b>	HCWM is not planned and budgeted	Budgeted and directly linked to HCWM assessment	At least half of facilities have budgets	Budgets are available, funded and tracked at 75% of system levels	HCWM is 100% budgeted at national and sub-national levels.
	<b>Practical guidance</b>	Need, or currently being developed	Guidance developed but not fully in use (used in less than 50% of the facilities)	Guidance is developed and in use in 50%–65% of the facilities within the country	Guidance is available and being implemented at most (65%–85%) system levels	Guidance is available and in use at more than 85% of facilities within the country
TECHNOLOGY	<b>Technology and equipment availability and use</b>	Not aware of BAT and BEP. Out-of-date, inefficient, non-environmentally friendly options for treatment and disposal	Awareness of the recommended BAT and BEP options but still using out-of-date equipment and technology	Some BAT equipment available at 50% of facilities (or 50% accessing services) and/or at least 50% of the waste being generated is treated and disposed using globally accepted technologies	Globally accepted equipment is widely (more than 51%) available; most facilities are clustered and mapped to an acceptable treatment technology	Only efficient and BAT used to manage HCW. Environmental monitoring of waste treatment and disposal done in compliance with national and/or global standards

## Strategic Assessment of the HCWM System

# Using the Maturity Model to Determine First Steps of Investment

# Identifying high level gaps and potential opportunities

A tool with questions to facilitate stakeholder engagement in planning for HCWM

Review recent assessments training records, audit and supervision reports

Estimating waste quantities across all health areas

High level update of inventory of treatment and disposal equipment

Landscape private sector companies involved in WM

Financial resources and opportunities for investment

Prioritize most immediate needs of people, processes and technology and identifies long-term strategic planning needs



Builds on the maturity model and system ranking

# ....and the Assessment Tool to rank your HCWM system

- Participatory process with key stakeholders involved in HCWM (broader than immunization)
- Guided by assessments, reports and understanding of context

	AREA	LEVEL RANKING (Level 1–5, lowest to highest)
PEOPLE	Awareness, training and supportive supervision	
	Adherence and compliance	
PROCESSES	National policy/ strategic plans	
	Budget and planning	
	Practical guidance	
TECHNOLOGY	Technology and equipment availability and use	
	<b>TOTAL</b>	
	Divide by 6 (number of areas)	/6
	<b>OVERALL SCORE</b>	



## Results of HCWM Maturity Assessment Findings in 25 countries

# Summary of HCWM Maturity Assessment Findings in 25 countries

Country	People		Processes			Technology
	Awareness, training and supportive supervision	Adherence and compliance	National policy/ strategic plans	Budget and planning	Practical guidance	Technology and equipment availability and use
Benin	2	1	1	1	2	2
Botswana	3	3	2	2	3	3
Burkina Faso	2	3	3	1	3	3
Cameroon	3	4	2	3	3	4
Central African Republic	2	2	2	2	2	1
Comoros	2	2	4	2	1	3
Côte d'Ivoire	3	3	3	2	2	3
Democratic Republic of the Congo	2	2	2	2	3	2
Eswatini	3	3	2	2	3	2
Ethiopia	2	2	3	1	2	2
Gambia	3	2	1	1	1	3
Ghana	2	2	3	1	3	2
Liberia	2	1	1	2	2	2
Malawi	2	2	2	2	1	3
Mauritania	4	3	5	5		3
Mozambique	3	3	4	3	3	2
Namibia	2	3	2	2	3	2
Niger	2	2	1	1	1	2
Nigeria	2	2	1	1	2	2
Senegal	2	2	4	5	5	3
Seychelles	4	4	4	4	4	4
Sierra Leone	3	2	1	1	3	2
South Sudan	3	3	3	2	4	2
Togo	4	4	4	4	4	3
Uganda	3	3	3	3	4	3
AVERAGE	2,60	2,52	2,52	2,20	2,67	2,52

- Major gaps were across the categories of;
  - People,
  - Processes
  - Technology.
- Practical guidance is highest and budgeting planning is lowest.
- This shows that probably there's a lot of guidance and has not been put into practice as seen in the results, this could be because of low budget allocation and planning associated to this.

## Recommended steps for Designing and Implementing the HCWM System

5



# Recommended steps for designing and implementing HCWM system

Conduct a high-level strategic assessment (maturity model)

In proposals e.g. FPP/CDS/HSS, to Gavi and other investors, plan for immediate actions to address common barriers i.e., design and plan system (UNICEF tool), reinforce knowledge and best practices, conduct inventory of existing technologies  
Illustrative indicators are provided

Identify and engage key stakeholders (broader than immunization)

Consider the preferred technology and equipment

Identify opportunities for other forms of investment and collaboration across sectors

# FUNDING OPPORTUNITIES

Agency	Support Area
<b>GAVI</b>	Funding of HCWM (FPP/EAF/COVID-19 Vaccine delivery support) and Coordination of key HCWM partners
<b>UNICEF</b>	HCWM Situation Analysis & Assessment
	Technical Assistance in partnership with GAVI
<b>Africa-CDC</b>	Funding on HCWM through Saving Lives and Livelihoods Programme
	Coordination of key HCWM partners
<b>WHO</b>	Training on HCWM guidance
	Funding of HCWM through C-19 Integration and Health System Strengthening (Canadian Grant)
<b>Global Fund</b>	Funding of HCWM through core allocations (rolling basis)
	Funding of HCWM through new C19RM applications



# Thank you

## NEXT WEBINARS:

**January 23, 2024:**

**Green & Safe Technologies for Health Care Waste Treatment: From Selection & Procurement to Implementation**

**February 20, 2024:**

**Facility-Level Activities: Managing Healthcare Waste**