

# Evaluations of Healthcare Waste Management Systems Performance in Kenya

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**IPC Scientific conference, Whitesands Hotel, Mombasa  
8<sup>th</sup> November 2013**



## **Introduction**

- ❑ Poor management and disposal of medical waste poses major risk to health care workers, patients and the community.**
- ❑ Health care facilities in developing countries often process specimens that are infected with harmful pathogens such as HIV, tuberculosis, and hepatitis.**
- ❑ Hazardous waste generated in such facilities raise concerns of causing potential harm to health workers, the environment and the community.**
- ❑ There are also biosecurity concerns of non-secured waste from biological specimens and agents from these facilities.**

## **Introduction**

- ❑ An effective Health Care Waste Management (HCWM) program requires financial capital and human resource contributions from across the health sector**
- ❑ This should be monitored and evaluated on a continuous basis**
- ❑ To improve waste management, CDC through PATH is supporting the MOH to develop model waste management systems in each of the 47 counties in the country**

## **Methods**

- ❑ To assess the effectiveness of the HCWM systems in Kenya, a two-part facility performance evaluation tool was developed**
- ❑ The evaluation tool was piloted in three regions of Kenya (Western region, Coast region, Central region) in 5 facilities between 11th and 18th October 2012**
- ❑ Each facility was assessed on five programmatic elements**

## **Methods cont.....**

- Programmatic elements evaluated:**
  - Policy and Procedures**
  - Management and Oversight**
  - logistics and budget**
  - Training and occupational health**
  - Waste treatment and infrastructure.**

# Facility assessment tool

## Facility Assessment Score Sheet

<i>Section</i>	<i>Total Points</i>	<i>Assessment Score</i>
<b>Section 1: Policies and Procedures</b>	<b>20</b>	
<b>Section 2: Management and Oversight</b>	<b>15</b>	
<b>Section 3: Logistics and Budget</b>	<b>20</b>	
<b>Section 4: Training and Occupational Health</b>	<b>22</b>	
<b>Section 5: Treatment and Infrastructure</b>	<b>23</b>	
<b>TOTAL SCORE</b>	<b>100</b>	

# Elements captured in each of the section

Policies and Procedures	Management and Oversight	Logistics and Budget	Training and Occupational Health	Treatment and Infrastructure
<ul style="list-style-type: none"> <li>• Key documents</li> <li>-HCWM plan,</li> <li>-IPC guidelines,</li> <li>-Facility HCWM plan,</li> <li>-SOPs,</li> </ul>	<ul style="list-style-type: none"> <li>• HCWM activities</li> <li>-Infection prevention and control (IPC) committee</li> <li>-Person responsible for HCWM</li> <li>-Supervisor for HCWM/IPC in departments</li> </ul>	<ul style="list-style-type: none"> <li>-Waste segregation</li> <li>-HCWM commodity (bin liners, safety boxes, PPE, incinerator fuel).</li> <li>-Waste transfer systems</li> <li>-Budget for HCWM commodities and supplies</li> </ul>	<ul style="list-style-type: none"> <li>-PPE for Incinerator operators, Waste handlers</li> <li>-Training on IPC, HCWM</li> <li>-Availability of sharps injury surveillance system (PEP, SOPs)</li> <li>-HBV Vaccination</li> </ul>	<ul style="list-style-type: none"> <li>-Waste and treatment and disposal facilities</li> <li>-Equipment maintenance</li> <li>-SOPs</li> <li>-Pollution control devices/ compliance</li> <li>-Waste pooling, NEMA approvals</li> </ul>



## Scoring of the programmatic elements

- A four color-code rating system based on facility performance was used to summarize findings and provide feedback to facilities as follows:

### Scoring Key:

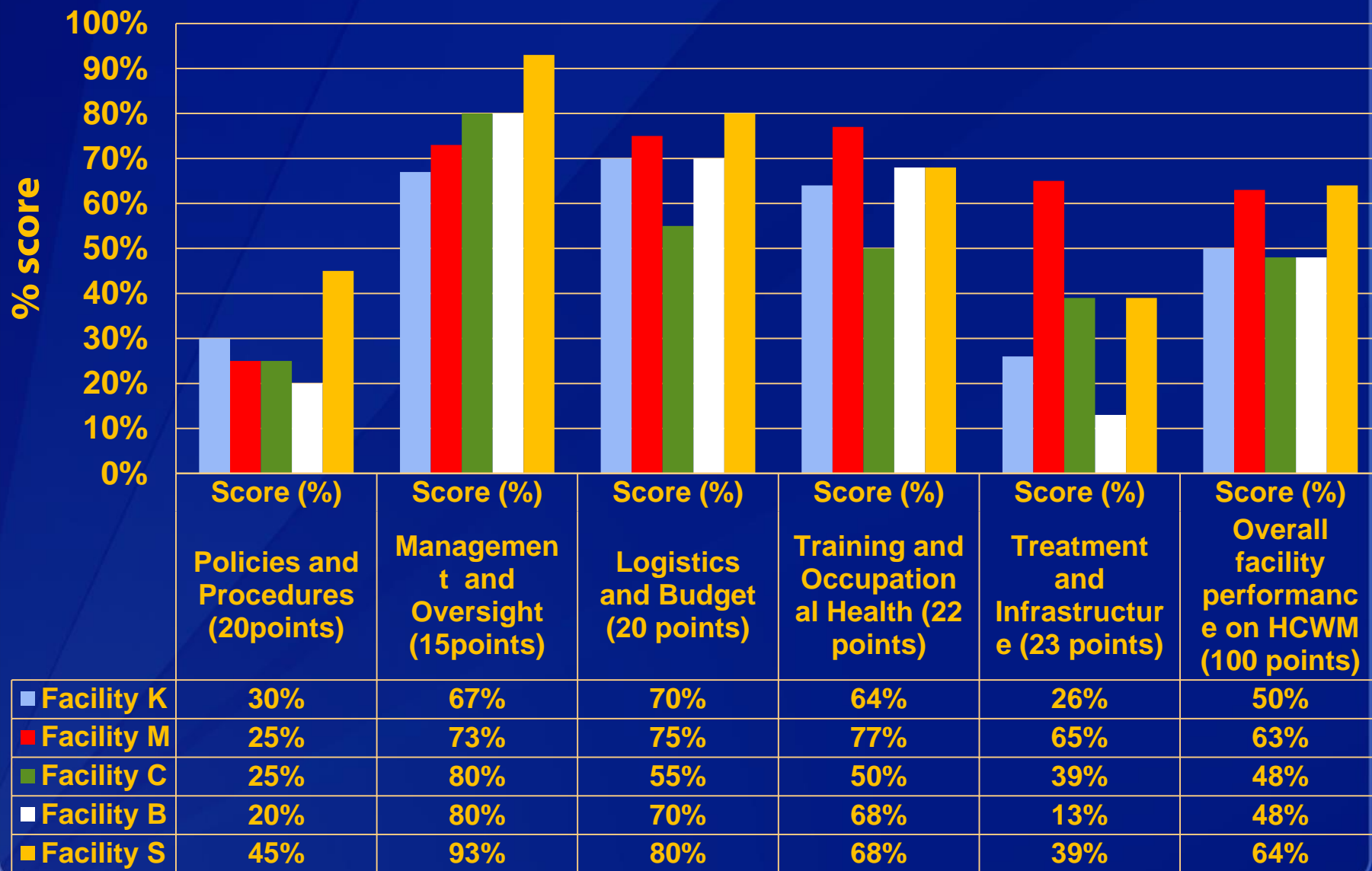
**Dark Green (DG) ( $\geq 80\%$ )- - Surpasses basic expectations**

**Green (G) (65-79%)-Meets standard**

**Yellow(Y) (51-64%)-Needs Improvement**

**Red (R) ( $\leq 50\%$ )-Needs urgent remediation**

## Performance of the 5 facilities in the pilot exercise on the 5 programmatic elements



## Results...cont'd

- ❑ **Overall, 60% of the facilities (3/5) scored  $\leq 50\%$  while two scored 63% and 64% respectively**
- ❑ **All five facilities performed well on**
  - Management and oversight (mean score=70%)
  - Logistics and budget element (mean score=79%)
- ❑ **Poor performance was observed on**
  - Policies and procedure (mean score= 29%)
  - Waste treatment and infrastructure elements (mean score=38%)

## Conclusion

- ❑ **Policies and procedure, waste treatment and infrastructure were identified as the weakest program elements in all five facilities' HCWM systems**
- ❑ **The assessment tool provide an opportunity**
  - To rapidly identify priorities within facilities' HCWM systems
  - Produce recommendations for immediate remediation action
- ❑ **Current effort to address the weak areas**
  - Dissemination of policies , guidelines, IEC materials,
  - Training and support on facility plan, SOPS development
  - Repairs of existing waste treatment equipment
  - Procurement of waste treatment and disposal equipment (Waste transfer trolleys, Macerators, incinerators, autoclaves and shredders)

# Thank you.

**For more information please contact CDC-Kenya**

E-mail: [info@ke.cdc.gov](mailto:info@ke.cdc.gov) Web: [www.cdc.gov](http://www.cdc.gov)

The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.

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