



# BRIEF ON UNDP-GEF MEDICAL WASTE MANAGEMENT PROJECT IN GHANA (2016-2020)



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## Project Background

Various studies conducted in the past few years have shown that the generation of healthcare waste (HCW) is rapidly increasing in Ghana, as a result of expanding healthcare systems, increased utilization of single-use items, and poor segregation practices. As an unintended consequence, the resulting larger healthcare waste quantities and their subsequent treatment (often in low technology incinerators), has resulted in increased releases of Unintended Persistent Organic Pollutants (UPOPs) and mercury into the environment.

To address these challenges, Ghana was included in a GEF funded project entitled “*Reducing Unintentional Persistent Organic Pollutants (UPOPs) and Mercury Releases from the Health Sector in Africa*”, which is also being implemented in Madagascar, Tanzania and Zambia.

The project is implemented by UNDP in partnership with the Ministry of Health (MoH), Ghana Health Service (GHS) and the World Health Organisation (WHO). Its objective is to promote the implementation of Best Environmental Practices (BEP) and the adoption of Best Available Technologies (BAT) for healthcare waste management (HCWM) with the aim of minimizing or eliminating releases of Unintended Persistent Organic Pollutants (UPOPs) to help countries meet their obligations under the Stockholm Convention on POPs. The project has also aimed to phase-down the use of mercury containing medical devices and products, while improving practices for mercury-containing wastes to reduce releases of mercury in support of countries’ future obligations under the Minamata Convention.

## Project Details

- Project period: February 2016-December 2020.
- Key partners: MOH, GHS, WHO, Accra School of Hygiene.
- Model facilities: Cape Coast Teaching Hospital, Eastern Regional Hospital, Tegbi Health Centre, Winneba Trauma and Specialist Hospital, St. John of God Hospital (Dua-Yaw Nkwanta).
- Other beneficiaries: Komfo-Anokye Teaching Hospital, Korle-Bu Teaching Hospital, Ridge Hospital, 37 Military Hospital.

## Key Activities and Summary of Results Achieved

### **a. Policy and legal framework for HCWM in Ghana**

Ghana's Policy on Healthcare Waste Management (2006) has been reviewed to meet currently accepted best practices, paying attention to the requirements in relevant international conventions on waste (Basel, Stockholm and Bamako Convention). A new National Guideline has been developed providing step-by-step processes on how healthcare facilities can efficiently manage their waste to reduce risks associated with improper HCWM and environmental pollution. Notably, the new guideline harmonised into one document, previously existing guidelines enforced

separately by MOH and Environmental Protection Agency (EPA). The harmonisation was done to enhance consistency in enforcement. There are now two documents to guide HCWM in the country:

- National Policy on Healthcare Waste Management to be enforced by Ministry of Health;
- National Guidelines on Healthcare waste management to be enforced by the health and environment sectors.

A national implementation plan has also been developed to enhance the implementation of the policy and guideline.

These results have created an enabling environment for the regulation of healthcare waste management practices and the enforcement of best practices to improve healthcare service delivery. It has also created a space for private sector engagement in HCWM.

### ***b. Establishment of a national training system on HCWM***

This component was designed with the objective of establishing a sustainable system to facilitate knowledge building among health personnel on HCWM.

At the national level, an expert group of Trainer of Trainers has been formed to facilitate knowledge sharing and capacity building across the country on HCWM. Under the project, they trained 700 clinical and administrative health personnel in Ghana on best HCWM practices and its importance/relationship with Infection Prevention and Control (IPC).

A modular course has been established with the Accra School of Hygiene to provide certification programmes on HCWM for interested institutions and persons across all sectors. The programme was rolled out in 2018 and has so far engaged two cohorts of trainees numbering up to 52 by the end of the 2019 training session.

This module has been incorporated in the curriculum of the three Schools of Hygiene (Accra, Ho and Tamale), Nursing and Midwifery training institutions to ensure that all Nursing students, Environmental Health students and students of relevant courses such as Occupational Therapy, have up-to-date knowledge on HCWM. These systems have the potential of producing at least 9,000 nurses, midwives and environmental health officers annually with adequate capacity to manage healthcare waste.

It is important to note that this module has also been adopted by the West Africa Health Organisation (WAHO) for mainstreaming at the regional level.

### ***c. Establishment of environmentally friendly healthcare waste management systems***

This component was designed with the objective of promoting the adoption best available technologies in healthcare waste management to reduce infection and emission of UPOPs.

Three autoclave treatment facilities have been installed at the Tegbi Health Center, the Eastern Regional Hospital and the Cape Coast Teaching Hospital for the treatment of infectious health care waste. A fourth facility will be installed at the St. John of God Hospital, Dua-Yaw Nkwanta later this year. These autoclaves facilities have capacities of 250litres, 500 litres, 500 litres and 400litres respectively, and have transportation systems to enhance the movement of infectious waste in

nearby healthcare facilities to operate as a cluster infectious health care waste treatment system. Additionally, the project has promoted the utilisation of a private non-incineration central treatment facility (Zoompak) in Accra and has facilitated an increase in its clientele by over 80 health facilities in the Greater Accra Region through advocacy on adoption of best HCWM practices.

These activities were complemented with capacity building and the supply of Personal Protective Equipment (PPEs) and consumables to facilitate proper and safe management of health care waste in model facilities.

In total, these facilities have the potential to treat 110,000kg of infectious waste per year and thereby avoiding the emission of 4.4g of UPOPs per year.

#### ***d. Mercury reduction in model health facilities***

The project procured and supplied 225 mercury-free thermometers and 219 BP apparatus among 5 health care facilities (Komfo-Anokye Teaching Hospital, Cape Coast Teaching Hospital, Eastern Regional Hospital, Winneba Trauma and Specialist Hospital and Tegbi Health Center). This was done through a replacement approach hence taking out the same number of mercury-containing devices from each facility to support the phase out/ down of mercury-containing devices from the health sector as obligated under the Minamata Convention. This contributed to the removal of about 21.9kg of mercury from the health sector and has led to an increased patronage of mercury-free alternatives among health care facilities.

#### **Benefits of Project Results on COVID-19 Response**

- The revised national HCWM policy and guidelines has created an enabling environment for the enforcement of healthcare waste management practices and protocols among facilities during the pandemic. The Health Facilities Regulatory Authority (HeFRA) has the requisite tools to monitor and enforce these protocols during the pandemic to ensure that service delivery to suspected and confirmed patients poses no risks to health care workers and their communities.
- Non-burn infectious waste treatment facilities installed by the project have provided additional capacity for the sector to effectively manage the high volumes of infectious waste from COVID-19 confirmed and suspected cases thereby reducing risk of spread within health care facilities and in nearby communities.
- Knowledge shared and capacity built have contributed to the implementation of a clear direction on effective healthcare waste management in all facilities during the pandemic.

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