

Improving Health Care Waste Management in Gaza Strip: introduction and formalization of practices, monitoring activities and system optimization

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Health Care in the Gaza Strip

In the Gaza Strip 13 hospitals out of 27 and 54 clinics out of 131 are managed by the **Ministry of Health** (MoH). The remainder is managed by **NGOs**, both local and international, United Nations Relief and Works Agency for Palestine Refugees (**UNRWA**) and **private companies**. The level of service is quite good, but need is increasing.

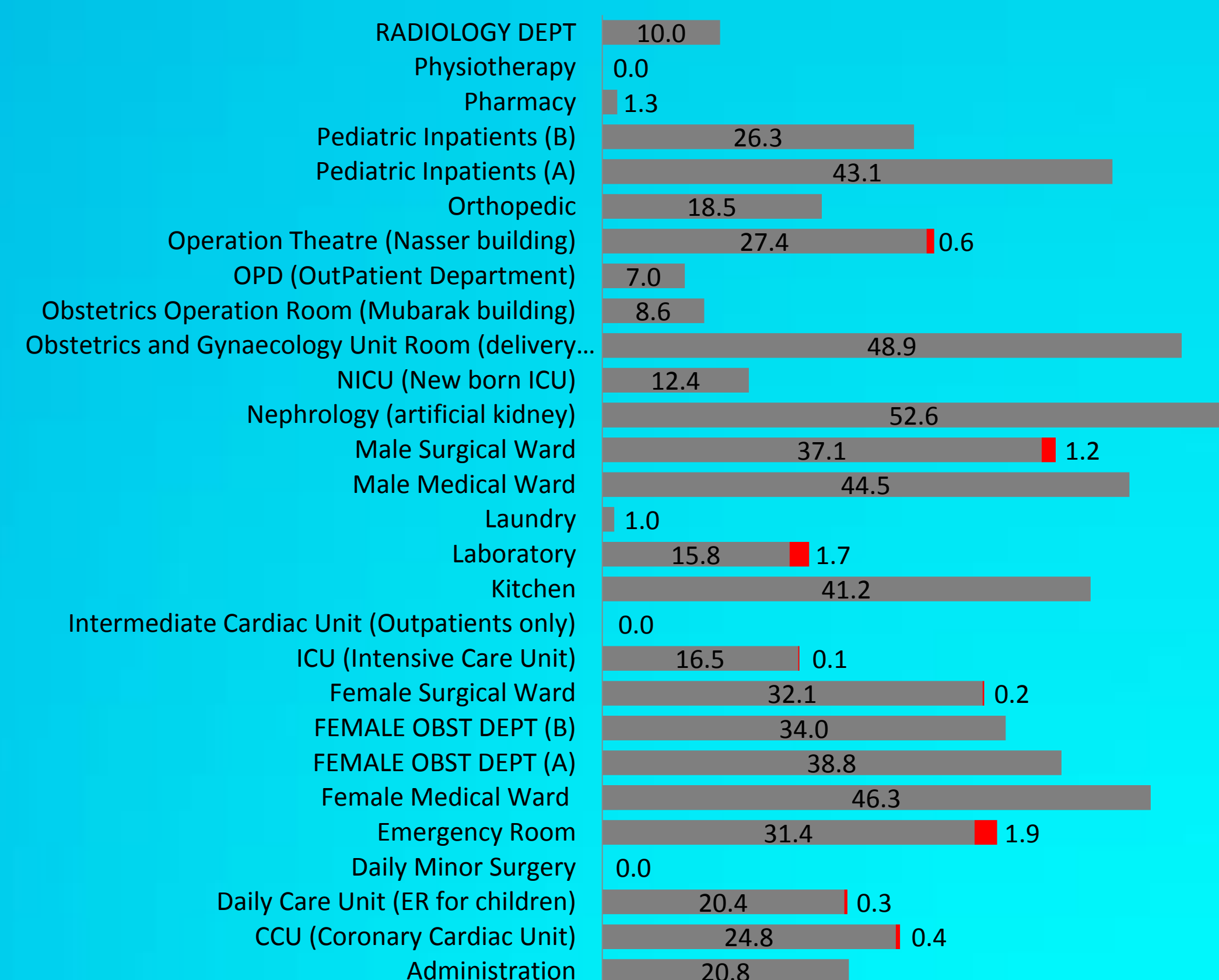
Activities and research

In 2012-2013 **Nasser Hospital** (334 beds) was supported with a short pilot project, working in 4 selected wards (ICU, ER, female surgical ward, female medical ward). Main activities:

- Baseline assessment
- Training at managerial level
- Training at ward level (theoretical + in-service training)
- Material supply (procurement in local market)
- Development of procedure and writing of operational protocol at hospital level
- Workshop with technical staff from MoH hospitals
- Public conference involving MoH, WHO and other health care actors

HCW production in Nasser Hospital (kg/d) (5-10 September 2012; waste flows according to segregation in place)

■ General waste ■ Infectious waste



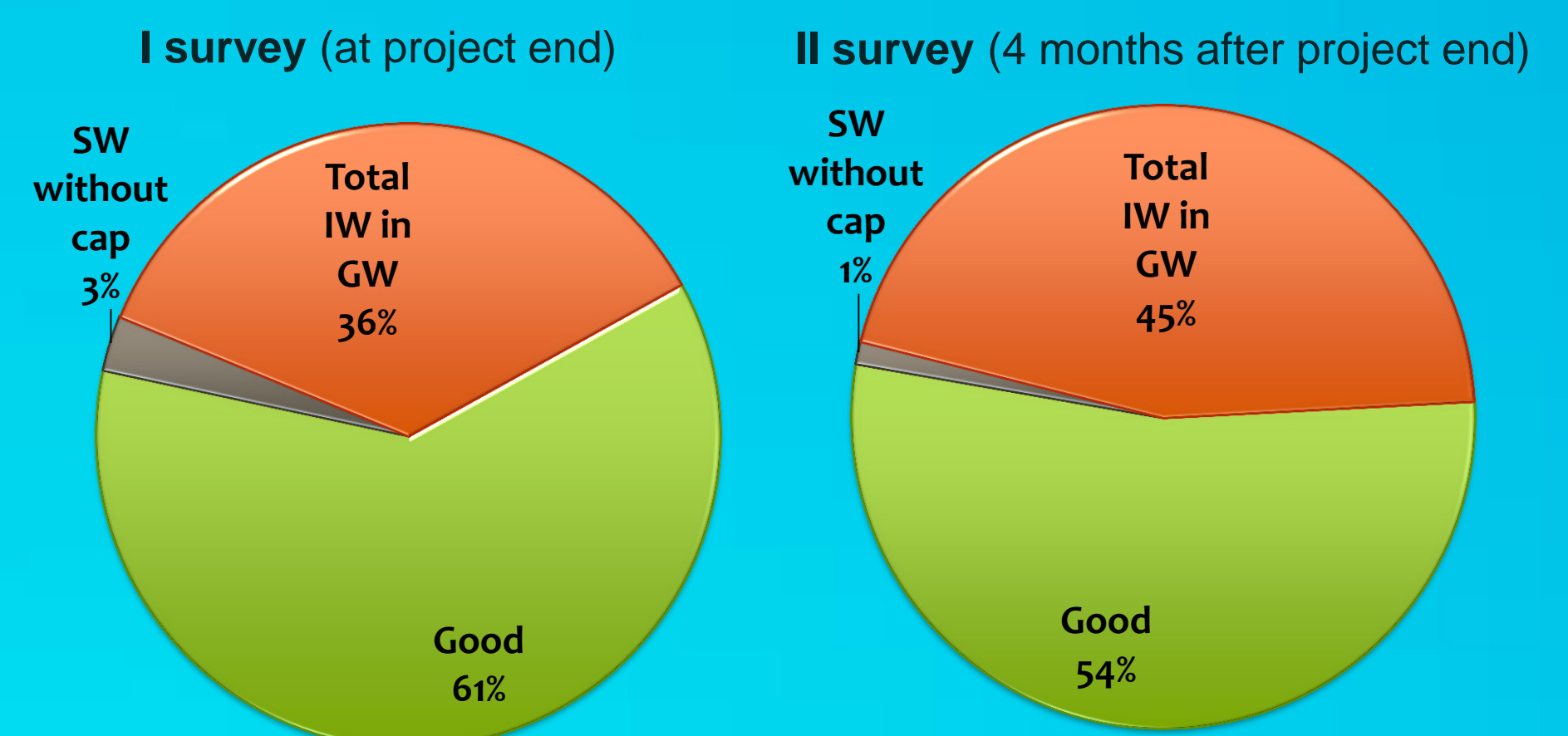
Results

Several challenges were faced, first of all the lack of governance and coordination about HCW management both at hospital and MoH level. Nevertheless, part of the staff involved by the project is very committed, and several actors are now more aware about risks and possible solutions. Currently the quantity of hazardous waste separated and delivered to Nasser Hospital incinerator has increased significantly. However risks for patients, workers and public health are still evident, and there is a clear need of support, in particular about soft components. Hazardous waste treatment is an open issue.

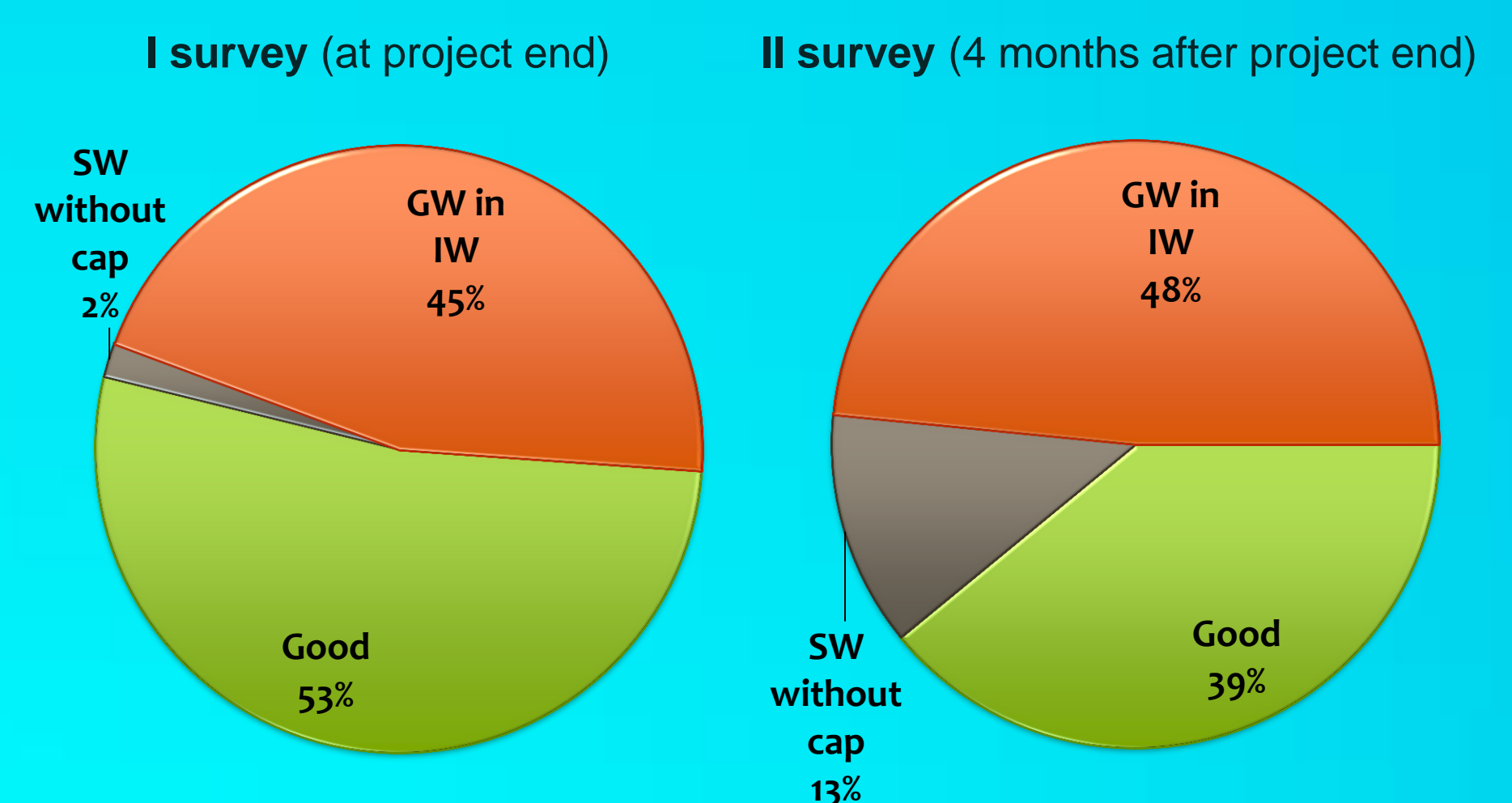
Health Care Waste

- Total estimate **HCW generation** (2012): **3,369 kg/d**
- Estimated **hazardous HCW generation**: **686 kg/d**
- Estimated quantity of infectious waste incinerated: 150 kg/d
- **Only sharps are partially segregated**. The remainder is practically not separated.
- Poor legislative framework, no policy at the Gaza Strip Level
- Very poor coordination between MoH, hospitals and other actors
- 3 small capacity incinerators in the Gaza Strip (no emission control device)

Segregation level in bins for General Waste in selected wards



Segregation level in bins for Infectious Waste in selected wards



GW: general waste; IW: infectious waste; SW: sharp waste.

Methodology from *Guidance on conducting a baseline assessment of the model healthcare facility* (UNDP GEF Global Health Care Waste Project, 2009).

Next steps

A new project (phase II) is under definition. The main activities to propose will be:

1. Follow up and improvement of existing practices in Nasser Hospital
2. Support to improve internal and external coordination
3. Separation extended to other wards of Nasser Hospital
4. Development of a HCW management system at Al-Shifa Hospital
5. Impact analysis for emissions from Nasser Hospital incinerator

Acknowledgement

All the activities were part the project “*Supporto alle pratiche di gestione dei rifiuti sanitari nella struttura ospedaliera di Khan Younis, Striscia di Gaza* (i.e. support to health care waste management practices in Khan Younis hospital)”, implemented by **COOPI – COOPERAZIONE INTERNAZIONALE** and funded by **COOPERAZIONE ITALIANA ALLO SVILUPPO** (i.e Italian Development Cooperation). CeTamb has been involved as consultant directly and exclusively by COOPI. All COOPI staff is thanked for the opportunity to cooperate about HCW management, and the precious support during all the activities.