

Udayana University

Issues and Challenges of Health CareWaste
Management in
Indonesia:
Experience from Bali

**SESSION II: Hospitals and Sustainable Practices**"Eco-Friendly Hospitals For A Sustainable World"

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## Issues on Medical Waste Management

### Medical waste segregation

- Needle syringe occasionally mis-placed in non-medical or non-sharp waste bin (storage)
- Improper handling of syringe tubes and needles in waste storage area
- Needle safety boxes and destructor are not used
- Not optimal segregation and illegal dumping

#### Incinerator

- Open burning of medical waste or expired medicines
- Hospital incinerator without permit
- Incinerators not properly monitored
- Overused incinerators

### Waste transportation

- Poor service from the transporting company, or transported by the health staff
- No proper labelling during transport







## Issues on ... (Cont.)

- Overall waste facilities
  - Poorly designed temporary waste storage facility
  - Inadequate waste water treatment facilities (e.g. simple septic system)
  - Weak maintenance of WTP: improvised repairs
- Improper hazardous waste storage and disposal
  - Mercury from broken health equipment
  - Batteries
  - Chemicals



Improper temporary waste "storage" on the "roof top"







## Other Environmental Management Issues

- Resource conservation:
  - Saving energy
  - Water conservation
  - Recycling waste



MENTERI KESEHATAN REPUBLIK INDONESIA

KEPUTUSAN MENTERI KESEHATAN REPUBLIK INDONESIA NOMOR: 1204/MENKES/SK/X/2004

TENTANG

PERSYARATAN KESEHATAN LINGKUNGAN RUMAH SAKIT

DEPARTEMEN KESEHATAN REPUBLIK INDONESIA DIREKTORAT JENDERAL PEMBERANTASAN PENYAKIT MENULAR DAN PENYEHATAN LINGKUNGAN 2004

Indonesian Regulation on Hospital Environmental Health Management 2004





# Challenges





## Individual Challenges

- NIMBY syndrome (Not in my backyard)
  - Medical staff do not consider risks for cleaning staff
  - Unawareness of risk at the end of disposal
- Health facilities management believe that investment in waste management is not profitable



Needle syringe in open dumping of general waste, Source: http://www.adivampciel.com/2012/09/skripsi-gue-itu-mesincuci.html





## **Environmental Challenges**

- Providing supportive environment for handling sharps waste
  - The sharp boxes are not 'ready to use' (need to be assembled).
  - Sharp boxes inconveniently placed
  - Temporary disposal areas easily accessed by third party (scavengers)
  - The capacity of needle destructor given to health facilities cannot keep up with the generation of needle waste
- Integrating waste management planning in building design
  - The waste management facilities are not included in early design of overall building
- Providing temporary storage for hazardous waste at municipal level



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## Structural Challenges

- Increase environmental health concern among health professionals
  - Lack of emphasis of waste impact and management in education curriculum of health professionals
- Convince hospital management about the cost benefit of environmental management
  - Encourage clear policy on recycling of some types of waste from health facilities (syringe, infusion tube, plastic containers)
  - Encourage clear policy on handling sharp waste and other medical waste
  - Allocate budget for waste management (handling medical waste is expensive)
  - Encourage adopting "Green Hospital" concept
- Provide clear policy and transparent process for permit of waste management service (national and local)
  - Complicated bureaucracy and long process for permit of incinerator and waste management service
  - Should encourage other types of medical waste treatment other than incinerator





## Service Challenges

- Proper service for transportation of medical waste is limited
- Few commercial waste management services with proper licenses.
- Municipality does not have temporary storage for hazardous waste (for medical waste ash, batteries, chemicals) → share cost.
- Lack of maintenance and monitoring service for incinerator





It is a "problem of management not technology" (Ananth et al. 2010)

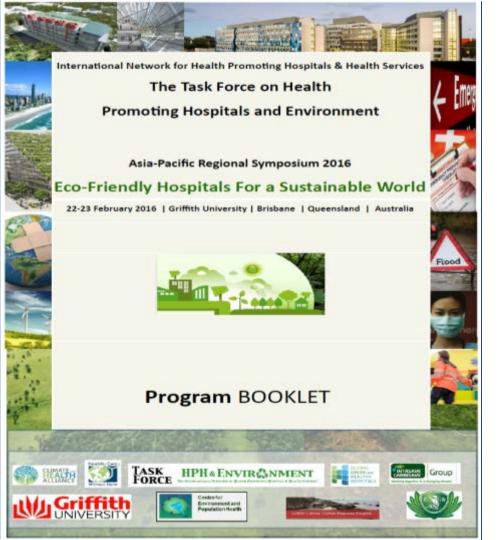
Table 1
Stages of HCWM and compliance with WHO standards.

Country	Segregation	Storage	Transport	Treatment	Disposa
Cambodia	0	0	0	0	0
China	0	0	ŏ	0	<u></u>
Indonesia	ŏ	0	0	0	0
Japan	ŏ	ŏ	ŏ	0	Õ
Lao PDR	•	•	0	0	•
Malaysia	ō	Ö	Ö	0	Õ
Mongolia	0	•	0	0	0
Myanmar	0	<u></u>	0	0	<u></u>
Philippines	0	ō	ŏ	0	ŏ
Singapore	0	0	0	0	0
Thailand	0	•	0	0	0
Vietnam	0	Ö	0	0	0
○ Followed		<ul><li>Partial</li></ul>		Not followed	





## Where to start?



AN INTERNATIONAL KNOWLEDGE AND PRACTICE-SHARING REGIONAL SYMPOSIUM ON

"ECO-FRIENDLY HOSPITALS FOR A SUSTAINABLE WORLD"

MONDAY, 22<sup>nd</sup> Feb 2016

Griffith University, Nathan Campus

Hosted by The Task Force on Health Promoting Hospitals and Environment of International Health Promoting Hospitals and Health Services Network and co-hosted by Griffith University

Venue: Griffith University Nathan Campus, Building N18 (Central Theatre), Theatre II

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