HEALTH CARE WASTE MANAGEMENT IN GAUTENG

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Outline

- Background/Introduction
- Principles
- Waste Hierarchy
- Legislative framework/Definitions
- Conclusion
Population - 12.5 million
Province – 16,940 km²
> 55,000 employees
Hospitals 36 and >400 PHC clinics
Hospital beds - 18,038
Admissions - 878,194
Deaths in hospitals – 47,553
Day patients – 122,498
Total PHC headcount – 19,625,576
Budget – >23.2 billion
Health care waste -> 4.5 million kg’s
HCW budget - >107 million
Background GH+SD - MONTHLY AVERAGE GENERATION RATES

1. **Region A**: - 159,721 Kg

2. **Region B**: - 145,949 Kg

3. **Region C**: - 72,338 Kg

4. **Average Total**: 378,008 Kg/Month
   
   \[ \text{Average Total} = 4,536,096 \text{ Kg/Year} \]

**Average cost/month**: R2,5 – 4,5 Million 2009/10.

**Currently**: R 8,752,192

12/14/2011

P. J. Brits
Supply of a HCW management service;
- Collection
- Removal (daily, weekly, monthly)
- Treatment
- Final Disposal

Supply of HCW Durables and consumables;
- Sharps
- Specican's
- Boxes + lids
- Wheelie bins
- Brackets
Policies/Strategies

1. **Policies:**
   - Gauteng Health Care Waste Management Regulations, 2004
   - Waste Information Regulations, 2004
   - NEMA
   - Air Quality Management Act, 2004
   - Road Traffic Ordinances
   - Occupational Health and Safety Act and regulations

2. **Strategies:**
   - Gauteng Provincial Integrated Waste Management Policy, 2006
VISION – HCWM

To facilitate the establishment of an integrated, environmentally sustainable, financially viable, institutionally feasible and operationally practical, comprehensive “cradle-to-grave” management system for HCW in Gauteng, covering all HCW generators in the province, addressing the short, medium and long term needs.

Also to ensure a working environment within all GH+SD facilities that is free of hazards and risks associated with the uncontrolled management of HCW.
IMMEDIATE OBJECTIVES – 2006

- To formulate and enforce an integrated Strategy for sustainable HCW management for GHD;
- To define institutional arrangements required to render sustainable HCW Management in Gauteng;
- To develop and implement action plans for implementation of the Strategy;
- To estimate financial and human resource requirements for implementation of effective HCWM in Gauteng;
- To evaluate the impacts of implementing the action plans, including impacts on the environment, occupational health & safety, public health, employment, etc;
- To put in place verification mechanisms.
PRINCIPLES

- Best Practice
- Best Value Performance Indicators
- Best Value services
- Cleaner Production
- Duty to care
- Green procurement
- Integrated Environmental Management
- Polluter pays principle
- Waste Minimization
- Cradle to grave management
WASTE HIERARCHY

Avoidance
Recycling
Reduction
Reuse
Minimization
Gauteng HCW regulations:

‘infectious waste’ means waste which is-

(a) suspected to contain pathogens; and
(b) which normally causes, or significantly contributes to the cause of increased morbidity or mortality of human beings;

but excludes baby-nappies and sanitary pads which are not isolation waste.
BIOLOGICAL AGENTS

- OHS Act, Reg 17,

- Biological Agent means any micro-organism, cell culture or human endo-parasite, including any which have been genetically modified, which may cause an infection, allergy or toxicity, or otherwise create a hazard to human health;

- • HBA means hazardous biological agents which are micro-organisms, including those that have been genetically modified, pathogens, cells, cell cultures and human endoparasites that have the potential to provoke an infection toxic effects. *(these Regulations are limited to HBAs, despite the definition for Biological Agents being “better”).*

- • The difference between a Biological Agent and HBA, is that it must be capable of causing infection (communicable disease) or a toxic effect to be considered a HBA.

- No specific information regarding nappies
Abridged definitions

- **HCRW =** Sharps, infectious waste, anatomical or pathological, hazardous chemical waste, genotoxic or cytotoxic, pharmaceutical, radioactive, pressured containers and waste with a high level of heavy metals.

- **Infectious waste =** hcrw which is suspected of containing pathogens and which normally causes or significantly contributes to the cause of increased morbidity and mortality of human beings.
Abridged definitions - 2

- Anatomical = all recognisable body parts, organs and body tissue such as placentas, non viable foetuses, amputations, etc.
- P27 in Def. - nappies by implication are excluded from infectious waste unless from an isolation ward
- Adult nappies excluded or rather not mentioned in:
  1. Gauteng regulations;
  2. International guidelines and currently Local Authorities By – Laws
  3. National Statutes – but planning to include
WHO - INFECTIOUS WASTE – Examples of infectious waste includes nappies (The 10 categories of HCRW).

Lincolnshire County Council (UK) – States that nappies are not part of clinical waste.

Cape Peninsular University – Godfrey, 2003 quotes that baby-nappies and sanitary pads are excluded from Infectious waste.

Bio-baba states that disposable nappies are the 3rd biggest waste contributor. Nappies are classified as medical waste and should be incinerated in S.A.

Gauteng HCW Regs - stipulates that nappies are not part of general infectious waste.

Gauteng HCW CODE OF PRACTICE – Includes nappies as part of HCRW.

HCWMx Strategy, July 2004 excludes baby nappies and sanitary pads.

COJ By Laws – Exclude nappies as part of HCRW.

COT By Laws – Currently excluded but planning to amend their by-laws.

Waste Act – HCRW do not need to go through classification process and are pre-classified wastes but these wastes falls under priority wastes with special measures to be applied.

NEMA, 1998 – Clinical waste from medical care in hospitals, medical centre’s and clinics - (Y1) Categories of wastes to be controlled.
ROLE PLAYERS

- GDOH & SD - Generator
- GDARD – Air Quality
- DEA – Registration Authority
- National Health – draft policies/legislation
- INDUSTRY – Services
- Traffic – road transportation
- DOL – Labour legislation, incidents/disasters
- Loc/Metro Govt. – legislation environmental spillage
HCW MAIN STORAGE AREA

- Responsibility of Facility Management.
- Requirements:
  - Lockable / Secure
  - Accessible to trucks
  - Out of reach of the public
  - Well managed
- Storage area’s must be provided with:
  - Cooling facility where necessary
  - Hand wash basin or in 50m proximity
  - Water supply or in 50 m radius
  - Signage
  - Scale / on vehicle in case of small generator/ clinic’s
  - Durable floor
  - Drainage
  - Clean and dirty area’s
OTHER REQUIREMENTS.

- HCWM plan
- Registration as a major generator – GDARD
- Registration of minor generator – less than 20 kg/day (Part of Local Government HCWM plan)
- Designated HCW Officer

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| HCF Manager |
| Contact details |
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WASTE INFORMATION SYSTEMS.

- Provision to GDARD
  - Data
    - HCWM plans
    - Registration of Major generators
    - Cooperative governance

- GDoH Information system
  - Data captured on monthly basis
  - SP capture data on monthly basis
  - Natural Scientist – Analysis of data
The Cradle to grave management of HCW is the responsibility and stays the responsibility of the generator.

Thank You