

# Menstrual Waste Management Role of Systems / Stakeholders

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# Topics

1. Safety
2. Culture
3. Policy
4. Costs of Waste Management
5. Incineration



## Safety

- Limited research and epi evidence on the risk of solid waste in emerging markets
- Gerba (Univ Arizona, microbiologist) menstrual disposal bins are bacteria hot-spot, include e-coli, Hep A & C, staphylococcus. Hardy bacteria
- Unpublished lab research confirmed e-coli on pad waste
- US OSHA guidance on safe management of blood-borne products, including menstrual products. Not regulated waste, but BBP includes guidance for building and restroom managers on safe handling, and lining and regular disinfection of bins



## Cultural Factors

- Stigma / taboos associated w/ blood & menstrual waste  
*e.g. who sees, who handles, where disposed, how disposed, type of treatment, black water recycling*



- Beliefs influence disposal at home & in public spaces Field insights:
  - Carry away from public spaces for fear of how will be handled
  - Public spaces desirable disposal when home communities lack privacy
- Preferences. Privacy, and confidence in how waste will be handled



# Policy

- Lack of clear guidance on systems to manage of menstrual waste at national, provincial or local level. On-site guidance for public bathrooms and work-sites is domain of local government
- Institutional confusion between education, local government, public works agencies for oversight of shared facilities
- Confusing or misleading guidance. Solid waste, regulated waste, or medical waste. Classification is driver for on-site behavior and service provision
- If classified as “riskier waste”, lack of guidance on systems for handling, and even less enforcement
- Lack of guidance on waste treatment methods, burying, landfill or incineration



## Costs of Poor Waste Management

- Un-desirable Facilities. Sites not clean or attractive for use. Taboos are influential
- Workforce Safety/Servicing. Cleaners ill-equipped to safely manage. Unprotected, or opt to not clean because of culture or perceived health risks
- Off-line. Clogged toilets go usable, deterring sustained sanitation practices
  - High cost of maintenance for owners and utilities (\$\$ de-clogging)
  - Lost operational hours of toilet facilities
- Infection risk. Clogged toilets and pipelines pose operational risk of spills, and infection risk



# Incineration

- Large-scale v. decentralized systems
- Safety standards absent for small systems
- Decentralized system operational challenges
  - Poor design for users
  - Power supply unreliable
  - Lack of durability
  - Too low temperature (e.g.  $\sim 150^{\circ}\text{C}$ ), emissions
  - Lack of destruction, disinfection
  - Installation and venting
  - Absence of product testing, inspection, certification
- Innovation
  - Durability & automated controls
  - Temperature of operation ( $\sim 600^{\circ}\text{C}$ )
  - Venting

