

## **Environmental health risks associated with solid waste management at rural hospitals in Chirumanzu District, Zimbabwe**

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### **Abstract**

Management of hospital solid is currently a critical and challenging issue worldwide, particularly in developing nations due population growth, disease outbreak and hospital solid waste increase. The issue is more complex at rural hospitals in Zimbabwe owing to limited resources. This paper focuses on understanding environmental health risks associated with solid waste management strategies utilised at rural hospitals in Zimbabwe. Descriptive cross sectional design that employs qualitative and quantitative paradigms was used for data collection, analysis and presentation. Questionnaires, observations, interviews and secondary data sources were utilised to solicit data. Water and soil samples were collected and tested for heavy metals presents. Statistical Package for Social Sciences and content analysis were used to analyse quantitative and qualitative data respectively. HC and STT hospitals generate pharmaceutical, chemical, radioactive, cytotoxic, sharps, infectious, pathological, general waste, construction, demolition and electronic waste. Management of hospital solid waste was based on traditional linear approach following storage, collection and disposal, although reuse and composting were applied. Open pits, open burning, incinerators, open burning and auto-way pits were used as disposal strategies. Disposal strategies used pose soil, water and air contamination while exposing people to injuries, diseases and musculoskeletal disorders. Enhancement of solid waste management at these rural hospitals require adequate resources, raising awareness of health workers, use of current technology, collaboration of responsible stakeholders and provision of proper Personal Protective Equipment/Clothing to health workers.

**Keywords:** ST Theresa (STT), Holy cross (HC), Rural hospitals, Hospital solid waste, Management strategies, Environmental health risks, Management challenges