

# **Solid waste characteristics and management strategies at ST Theresa (STT) and Holy Cross (HC) hospitals in Chirumanzu rural District, Zimbabwe**

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## **Abstract**

Management of solid waste from rural hospitals is among major problems affecting developing countries. This is mostly attributed to inadequate data related to quantity and quality of hospital solid waste. Similarly, information related to rural hospital solid waste characteristics and management is limited in Zimbabwe. However, SDGs complemented by Zimbabwe Vision 2030, NDS 1 advocates for sustainable solid waste management. Hence, enough data related to characteristics of solid waste from rural hospitals are required to attain sustainability. This research focuses on hospital solid waste characteristics and management strategies at STT and HC rural hospitals. Descriptive cross sectional research design which triangulates qualitative and quantitative paradigms was utilized. Interviews, observations, questionnaires were used to collect data. Quantitative data were analyzed using Statistical Package for Social Sciences whereas qualitative data were subjected to content analysis. Solid waste generated at STT encompasses non-hazardous (77.35%), hazardous waste (22.65%). At HC solid waste consists of non-hazardous (79%) and hazardous waste (21%). Respondents at STT (70.4%) and HC (72.7%) noted that solid waste was increasing. Solid waste was increasing due to various factors namely high use of disposable materials at HC (35.1%), STT (42.5%) and increase of patients at HC (30%) and STT (29.7%). Solid waste was indiscriminately stored in various types of containers although pedal operated bins and sharp containers were highly used at STT (72.4%) and HC (69.1%). Waste receptacles were transported to disposal sites using wheelbarrows and manual handling. Open pits and burning were among disposal strategies but incineration was regarded as the golden approach at STT (44.8%) and HC (41.8%). Inappropriate hospital solid waste management was due to shortage of finance at STT (38.1%) and HC (30.9%) and unawareness among health workers. Although it was worsened by lack of all stakeholder participation at STT (79.0%) and HC (76.4%). Consequently, the study recommended application of strategies which support circular economy, integrated approach, raising awareness of health workers and provision of enough resources to rural hospitals.

**Keywords:** Rural hospitals, Hospital, Solid waste, Management strategies, Management challenges, ST Theresa (STT), Holy Cross (HC)