

ABSTRACT

Cost Effectiveness of Healthcare Interventions for Cardiovascular Illnesses in Trinidad & Tobago

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Although it may be intuitively imagined that primary and preventative healthcare should be more cost-effective than high-technology tertiary care, there is not enough data to support this theory, especially in Trinidad & Tobago. The present research compares the cost-effectiveness of different levels of healthcare interventions for cardiovascular illnesses in Trinidad & Tobago. The main objective is to elucidate the allocative efficiency of resources towards tertiary care including treatment at the intensive care units (ICU) compared to primary healthcare. A generalized cost-effectiveness analysis was adopted to calculate the cost-effectiveness ratios of primary care, ICU and other modalities of tertiary care for cardiovascular illnesses. Costs of interventions for cardiovascular illnesses at all these levels were estimated using a top-down approach and population-based costs were derived. The population-based health effects were measured in terms of 'disability adjusted life years' (DALY) lost due to cardiovascular illnesses. To compensate for uncertainties, a one-way sensitivity analysis using a bootstrapping technique was employed. Primary care interventions for cardiovascular disease were highly cost-effective compared to ICU and high-technology interventions, the cost-effectiveness ratio being one-third of ICU care and one-eighth of advanced high-technology care. Currently less than one-fourth of the total budgetary resources are allocated towards primary healthcare. There is a dire need for policy change in order to reallocate more resources towards primary care, which is likely to return better population-based health benefits.

Keywords: Hariharan Seetharaman; cost-effectiveness analyses; cardiovascular diseases; disability adjusted life years; cost of intensive care; Trinidad & Tobago.