Costs of scaling-up STI treatment interventions: A systematic review and cost projections of different service delivery modes and treatment strategies

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**Regression results**

- **Key Determinants of Unit Costs and Predictions by Regression Analysis**
  - **(dependent variable: Ln [unit costs])**
  - **Impact on unit costs**
  - **Variable**
  - **Coefficients**
  - **Multiplication factor (percentage)**
  - **Constant**
  - **-47.910**
  - **Costing method:**
  - **ECONOMIC (relative to Financial)**
  - **0.324**
  - **FULL (relative to Incremental)**
  - **1.252**
  - **Location:**
  - **AFRICA (relative to rest-of-world)**
  - **1.205**
  - **Impact measures:**
  - **(relative to per treatment)**
  - **EFFECTIVENESS (e.g. per STI cured, etc)**
  - **0.723**
  - **Service delivery modes:**
  - **(relative to clinic serving symptomatic patients)**
  - **SCREENING**
  - **0.432**
  - **OUTREACH**
  - **0.415**
  - **Protocol:**
  - **SYNDROMIC MANAGEMENT (relative to other management strategies)**
  - **-0.705**
  - **YEAR**
  - **0.025**
  - **Ln(SCALE)**
  - **-0.142**
  - **PCGDP**
  - **-0.000**

- **n=131; Adjusted R² 0.72; p-value ≤ 0.1**

**Exploratory Projections**

- The model predicts that the full economic costs per person treated in a clinic serving 1000 symptomatic patients using syndromic management in 2001 in an African country with a per capita income of $600 would be: $54 per patient.
- Predicted unit costs by variations to the scenario above are:
  - Incremental cost: $16 per patient.
  - Outside of Africa: $16 per patient.
  - Per STI cured: $112.
  - 100 patients: $75; 10,000 patients: $39 per patient.
  - Outreach treatment intervention: $62 per patient.
- Not syndromic management: $110 per patient.

**Conclusions**

- This study has systematically summarised the evidence on the costs of STI treatment interventions in developing countries.
- Due to the variety of aims for collecting cost data in the studies, there is a lack of cost estimates using comparable methodologies which is needed to estimate the cost of scaling up.
- The analysis of empirical costs estimates suggests that unit costs will decrease as projects grow. However, these precise predictions above should be seen as indicative rather than firmly predictive. It also highlights the important impact of different costing methodologies and service delivery modes on unit costs.
- Further refinement of such models, by including additional observations and further details of study settings (such as STI prevalence, etc.), can contribute towards evidence based projections of the costs of scaling up STI treatment services.

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