

Cost-effectiveness of educational outreach to primary-care nurses to increase tuberculosis case detection and improve respiratory care: economic evaluation alongside a randomised trial

CITATION

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ABSTRACT

Objective: To evaluate the cost-effectiveness of an educational outreach intervention to improve primary respiratory care by South African nurses.

Methods: Cost-effectiveness analysis alongside a pragmatic cluster randomised controlled trial, with individual patient data. The intervention, the Practical Approach to Lung Health in South Africa (PALSA), comprised educational outreach based on syndromic clinical practice guidelines for tuberculosis, asthma, chronic obstructive pulmonary disease, pneumonia and other respiratory diseases. The study included 1999 patients aged 15 or over with cough or difficult breathing, attending 40 primary-care clinics staffed by nurses in the Free State province. They were interviewed at first presentation, and 1856 (93%) were interviewed 3 months later.

Results: The intervention increased the tuberculosis case detection rate by 2.2% and increased the proportion of patients appropriately managed (that is, diagnosed with tuberculosis or prescribed an inhaled corticosteroid for asthma or referred with indicators of severe disease) by 10%. It costs the health service \$68 more for each extra patient diagnosed with tuberculosis and \$15 more for every extra patient appropriately managed. Analyses were most sensitive to assumptions about how long training was effective for and to inclusion of household and tuberculosis treatment costs.

Conclusions: This educational outreach method was more effective and more costly than the usual training in improving tuberculosis, asthma, and urgent respiratory care. The extra cost of increasing tuberculosis case detection was comparable to current costs of passive case detection. The syndromic approach increased cost-effectiveness by also improving care of other conditions. This educational intervention was sustainable, reaching thousands of health workers and hundreds of clinics since the trial.