

Background: Awareness of the potential impact of malaria among school-age children has stimulated investigation into malaria interventions that can be delivered through schools. However, little evidence is available on the costs and cost-effectiveness of intervention options. This paper evaluates the costs and cost-effectiveness of intermittent preventive treatment (IPT) as delivered by teachers in schools in western Kenya.

Methods: Information on actual drug and non-drug associated costs were collected from expenditure and salary records, government budgets and interviews with key district and national officials. Effectiveness data were derived from a cluster-randomised-controlled trial of IPT where a single dose of sulphadoxine-pyrimethamine and three daily doses of amodiaquine were provided three times in year (once termly). Both financial and economic costs were estimated from a provider perspective, and effectiveness was estimated in terms of anaemia cases averted. A sensitivity analysis was conducted to assess the impact of key assumptions on estimated costeffectiveness.

Results: The delivery of IPT by teachers was estimated to cost US\$ 1.88 per child treated per year, with drug and teacher training costs constituting the largest cost components. Set-up costs accounted for 13.2% of overall costs (equivalent to US\$ 0.25 per child) whilst recurrent costs accounted for 86.8% (US\$ 1.63 per child per year). The estimated cost per anaemia case averted was US\$ 29.84 and the cost per case of Plasmodium falciparum parasitaemia averted was US\$ 5.36, respectively. The cost per case of anaemia averted ranged between US\$ 24.60 and 40.32 when the prices of antimalarial drugs and delivery costs were varied. Cost-effectiveness was most influenced by effectiveness of IPT and the background prevalence of anaemia. In settings where 30% and 50% of schoolchildren were anaemic, cost-effectiveness ratios were US\$ 12.53 and 7.52, respectively

Conclusion: This study provides the first evidence that IPT administered by teachers is a cost-effective schoolbased malaria intervention and merits investigation in other settings.