

## **Artemisinin-based combination therapy reduces expenditure on malaria treatment in KwaZulu Natal, South Africa**

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### **Summary**

**Introduction** There is growing international evidence that artemisinin-based combination therapy (ACT) is one of the few effective measures available to 'Roll Back Malaria'. However, concerns about the costs and affordability of ACT are obstacles to its widespread implementation. This paper explores some economic aspects of the implementation of artemether–lumefantrine (AL) to replace sulphadoxine–pyrimethamine (SP) in the KwaZulu Natal (KZN) province, South Africa.

**Methods** Recurrent and capital costs for malaria treatment were compared at baseline and post-intervention for nine clinics and a sentinel rural district hospital. Changes in the unit costs of, and total expenditure on, malaria services were calculated and the cost effectiveness of AL relative to SP was assessed.

**Results** The number of outpatient malaria cases and inpatient admissions both declined by 94% between 2000 and 2002. After accounting for the role of concurrent improvements in vector control, it was conservatively estimated that 36% of the decline in outpatient cases and 46% for inpatient admissions was attributable to changing the first-line drug to AL. Although AL is considerably more expensive than SP, its improved cure rate and reduced malaria transmission resulted in an estimated US\$ 201 065 cost saving in 2002 alone for the subdistrict studied.

**Discussion** In the context of effective vector control and low efficacy of existing monotherapy, ACT can reduce total expenditure on malaria services. However, the relevance of these findings requires careful consideration in countries with currently effective treatment policies and higher intensity malaria transmission.