

# Mixed infections in childhood diarrhoea: results of a community study in Kiambu District, Kenya

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## Abstract:

One thousand four hundred and twenty diarrhoea specimens from 846 children aged 0 to 60 months were collected and analysed for bacteria, parasites and rotavirus over a 16 month period, from June 1985 to September 1986 inclusive. The study was conducted in 4 villages situated in Kiambu District, Kenya. All the specimens were analysed for rotavirus and parasites, including *Cryptosporidium*. The majority of the specimens were analysed for enteropathogenic *Escherichia coli* (EPEC), *Shigella*, *Salmonella*, *Campylobacter* and *Aeromonas*. Only 387 specimens were analysed for enterotoxigenic *E. coli* (ETEC). However, of this proportion analysed for ETEC, 33% were positive. A total of 344 specimens were negative for any organisms while a further 140 were only positive for parasites which have been implicated as being pathogenic, including *Ascaris lumbricoides*, *Hymenolepis nana*, *Trichomonas hominis* and *Blastocysts hominis* were considered to be at least potentially pathogenic and capable of causing diarrhoea. An average of only 29.4% of these organisms occurred as single isolates. The remaining infections were mixed, with a maximum of 7 potentially pathogenic organisms occurring together in a single specimen. The associations of certain organisms were significant, notably *Campylobacter* with *Giardia lamblia*. *Campylobacter* with EPEC, EPEC with *Ascaris*, and *G. lamblia* with rotavirus. The latter was a negative association.