Treat the worms, but do other things too

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More than a third of the world’s population is infested with worms according to the Global Atlas of Helminth Infections (www.thiswormyworld.org). Most of those affected live in extreme poverty in resource poor settings in sub-Saharan Africa, Asia, and the Americas. Children are particularly vulnerable to the ill effects of a heavy parasitic load. As Nigel Hawkes says (doi:10.1136/bmj.e8558), given these facts, who would hesitate to provide the few pence it costs to deworm a child?

Indeed there is no shortage of international organisations and charities willing to invest in deworming programmes. But, as Hawkes explains, their enthusiasm is based on claims of benefit that are not justified by a close look at the evidence. Deworming certainly removes worms in those who are infested, but what about mass population treatment programmes? Do they, as many now claim, improve weight gain, school attendance, academic performance and even earnings, productivity, and income?

During the 1990s the Cochrane review group based in Liverpool began to question these broader claims. Their first review, published in the BMJ in 1997, and all updates, concluded that there is no good evidence that deworming programmes improve growth, cognitive ability, or school attendance.

A randomised trial published in the BMJ in 2006 (BMJ 2006;333:122; doi:10.1136/bmj.38877.393530.7C) was one of those studies whose findings were questioned by the Cochrane group. The paper reported increased weight gain in Ugandan children given albendazole. But as the Cochrane reviewers pointed out in 2007, the authors had not corrected their analysis for the cluster randomised design. When properly adjusted the increased weight gain was no longer statistically significant.

The news will be intensely disappointing for those who thought that a panacea of sorts had been found. Instead, it seems that the world must put its shoulder to the slower, more complex, business of building public health and social infrastructure in resource poor settings—including proper sanitation, nutrition, and education—and, of course, treating worms in those who have them.