

**ECON742: Questionnaire 5**  
**“Worms: Identifying Impacts on Education and Health in the Presence of Treatment Externalities”**

The questions are based on Miguel, Edward and Michael Kremer, (2004), “Worms: Identifying Impacts on Education and Health in the Presence of Treatment Externalities”, *Econometrica*.

1. Quickly describe the problem: worms, contamination, and consequences for the children (Table 2).
2. Describe the two problems in the previous studies that led to the underestimation of the effects of treatment: within-school externality and across school externality. How do the authors propose to solve these problems: describe the technique used (hint: randomization at the level of school, and not the individuals!)
3. What does Table 1 mean? Why is it crucial for the analysis that there are no differences pre-treatment for the 3 groups?
4. What does Table 3 mean? Was the program well implemented?
5. What do we see in Table 5? Does this mean the program was effective, and that it decreases infections?
6. Are there within-school externalities: look at table 6. Are you convinced by this result? Criticize (eg, who are these children in treated schools who are not treated? Are they systematically different from others?)
7. Look only at column 1 of Table 7: interpret the first coefficient. What does the second coefficient mean? Does this mean that there are across school externalities?
8. Conclude: what is the cost benefit ratio of the program? Would you advise the replication of the program in other areas?