Abstract for the Global Burden of Salmonella, Shigella and Typhoid

Introduction
There have been very few published papers estimating the global burden of foodborne diseases. Three papers, with varied methodology, for specific pathogens are presented.

Methods
The three papers were described.
1. Kotloff, KL, Winickoff, JP, Ivanoff B, Clemens JD, Swerdlow DK, Sansonetti PJ, Adak GK, Levine MM. Global burden of Shigella infections: implications for vaccine development and implementation of control strategies. This paper, following a extensive literature review, used papers of diarrhoeal incidence and aetiological surveys. It estimated the number of cases for age strata and severity.
2. Crump JA, Luby SP, Mintz ED. The global burden of typhoid fever. Published typhoid incidence papers were used to estimate the burden of disease. Paratyphoid was estimated from typhoid results.
3. Global burden of salmonellosis. Work in progress. We used three methods: published Salmonella incidence papers, Salmonella surveillance data with 'multipliers' applied and travellers' incidence data.

Results
1. 164.7 million Shigella cases per year with 1.1 million deaths
2. 21 million typhoid cases per year with 200,000 deaths. 5 million paratyphoid cases a year.
3. Preliminary results estimate approximately 86 million cases of salmonellosis a year.

Limitations
The limitations are similar for all three studies, with significant data gaps that necessitate extrapolation being the most important.

Discussion
Estimating global disease burden is a challenging but important task. Efforts to improve data points in developing countries with significant disease would prove valuable.