among children aged 1–9 years (Solomon et al., 2018). In reality, many programs are surveying 25–30 clusters to reach the required number of children (Sata et al., 2021; Sanders et al., 2019). While analysis of optimal survey designs has been performed for other neglected tropical diseases (NTD)

of the design effect multiplied by 100: $p_{used} = \frac{100}{D_{eff}}$) and the cost estimates derived

Figure 1. Precision of TF prevalence estimates by clusters sampled. True prevalence in order of panels: 38%, 31%, 20%, 8%, 4%, 1%. Regions of probability where an incorrect MDA decision is made relative to WHO MDA thresholds are shaded red. Green line: 'true prevalence', bold lines: 95% uncertainty intervals; dashed lines: WHO MDA cut-points.

Figure 2. Proportions of wrong MDA decisions by cluster number and true prevalence. Peak probabilities of an incorrect decision occur at the MDA decision thresholds (vertical gray dashed lines). The lowest probabilities of an incorrect decision are found between two MDA thresholds.

when sampling an unrealistically high 34 clusters. While this observation may be initially frustrating to trachoma teams attempting to achieve 2% precision in all districts (Solomon et al.,

Figure 4. Proportions of incorrect decisions by household number and true prevalence. Peak probabilities of an incorrect decision occur at MDA decision thresholds (vertical gray dashed lines). The lowest probabilities of an incorrect decision are found between two MDA thresholds.

Figure 5. Proportions of low MDA decisions by household number and true prevalence. Peak probabilities of a low

vey was an inefficient use of funds versus an additional round of MDA (Solomon et al., 2020). In Amhara many impact survey rounds are expected to yield continuation rates greater than 71%, suggesting cost inefficiencies in the current impact survey schedules.

In moderate-prevalence districts (10–30% TF prevalence), UIs become as narrow as 10–15% when sampling 34 clusters, which is still wide relative to treatment decisions. However, if MDA is to

as TF prevalence increases. Thus, sampling 15–20 clusters in sus-
pected moderate- and high-prevalence districts should limit