**Supplemental Digital Content 1.** Sample size considerations

Minimum sample size was determined by taking into consideration the client load that is available from the different entry points, and assumed prevalences from program data and published literature. Information from Yekatit and Felege Hiwot hospitals was used to determine the expected client load and prevalence level at level at inpatient, taking into account that health centers do not have inpatient entry points. Prevalence for malnutrition was assumed to be similar to inpatient data. Prevalence for OVC was assumed from outpatient prevalence data from Yakatit and Felege Hiwot hospitals. Estimates observed from Organization for Social Services for AIDS (OSSA) Index Testing Program was used to determine prevalence at family testing entry point because this was the best available data source relevant to this patient population. Prevalence for TB was taken from a published study entitled “Evaluation of integrated registers for tuberculosis and HIV surveillance in children in Ethiopia, 2007-2009” [4].

Sample sizes do not include non-respondents. The expected number of children to be enrolled by each of the facilities is estimated from the number of children they tested during the prior fiscal year. Confidence limits are determined based on the level of client flow and the level of accuracy needed to inform programs. Sample size for OVC and malnutrition will allow reporting of information for sub-groups.

Sample size was calculated using the formula:

n = Deff x (Z2 × P(1 – P))/e2

Where:

Deff = 1.5 is the assumed design effect for cluster (clinic) sampling

Z = value from standard normal distribution corresponding to desired confidence level (Z=1.96 for 95% CI).   
P is expected true proportion  
e is desired precision (half desired CI width).