What is the Lives Saved Tool?

The Lives Saved Tool (LiST) - developed by the Institute for International Programs at Johns Hopkins Bloomberg School of Public Health and funded by the Bill & Melinda Gates Foundation - is a tool which estimates the impact of scaling up on maternal, newborn, and child health, and nutrition (MNCH&N) interventions. LiST is housed within Spectrum, a software package maintained by Avenir Health. Users - including NGOs, government partners, researchers, project planners and graduate students - have been using the model for over 10 years. The LiST team regularly updates the model to incorporate the most recent evidence available from the scientific literature and household survey data, ensuring that results are as recent and accurate as possible.

What types of intervention are in LiST?

Periconceptual  Pregnancy  Childbirth  Breastfeeding  Preventive  Vaccines  Curative

How does LiST work?

LiST calculates changes in cause-specific mortality based on intervention coverage change, intervention effectiveness for that cause, and the percentage of cause-specific mortality sensitive to that intervention. Default coverage data comes from large scale validated surveys - typically Demographic and Health Surveys (DHS), Multiple Indicator Cluster Surveys (MICS) and WHO/UNICEF Joint Monitoring Program. Default effectiveness values come from systematic reviews, meta-analyses, Delphi estimations, and randomized control trials. Affected fractions are built using data from the Child Health Epidemiology Reference Group (CHERG) and the UN Inter-agency Group for Child Mortality Estimation (IGME). These high quality data sources as inputs translate into estimates that can be trusted. Additionally, users who have more recent or better data can easily replace default data with their own.

What types of questions can LiST help answer?

“If I increase coverage of intervention X, I could save Y number of lives”

“Reduction in mortality from year A to year B were mostly due to increase in coverage of X,Y, Z interventions”

“If we want to reach our mortality reduction target in the most cost effective way, we should focus our efforts on increasing coverage of interventions X and Y”
LiST use cases

Strategic planning

LiST allows you to identify which interventions will have the highest impact on which type of mortality. It provides an evidence-based foundation to orient decisions on where to invest effort and resources to have the most impact on mortality. Intermediate outcomes such as stunting or wasting can also be modeled. Running a LiST analysis has allowed users to review their plans to remove low-impact high-cost interventions, thus freeing up funds to re-orient towards higher impact endeavours.

Evaluation

Programs and projects are often planned in 3-5 year cycles. High quality representative mortality data isn’t always available to be able to assess impact on mortality in such short timeframes. Modeling has been particularly useful in NGO program evaluations, where mortality is difficult to measure due the timing and costs of evaluation. Users have also carried out retrospective evaluations to see which interventions led to the the highest reductions in mortality.

Advocacy

Using LiST allows users to advocate for focusing on a specific programmatic area or on a certain intervention or package of interventions by quantifying potential impact on mortality or intermediate outcomes. This has been used for proposal development, and also to compel donors to shift their funding towards certain interventions. LiST is evidence-based, allowing advocates to provide valid estimates built by relying on high-quality and recent data sources, rather than from speculative or aspirational sources.

What else can I do in LiST?

Subnational wizard

For users who focus on only one subnational population, the Subnational Wizard in LiST is there to guide them through the process of creating a population projection with the same characteristics as the subnational population of interest, and then use this projection as they would if using national data. Subnational populations can be defined by wealth quintile, geographic region, or any other subdivision for which the user has relevant data.

Missed opportunity

To evaluate where a rapid scale-up of interventions would have the most impact on mortality, users can turn to the Missed Opportunity tool. With a few clicks, users can visualize what would happen to mortality or stunting if interventions were each individually scaled up to 90% in the next year. They can then use this information to build more realistic projections in the LiST software.

Equity

Similarly to the Missed Opportunity tool, the Equity tool allows users to visualize what would happen to mortality or stunting rates in a given country if everyone in the country reached the coverage level of the country’s richest quintile. The rationale is that these rates have already been achieved in-country and therefore might be more readily replicable.

Costing

Financial feasibility of scale up scenarios and cost-effectiveness of interventions can both be assessed by using the LiST Costing tool. Default data can easily be adjusted to reflect local realities, and thus allow planners, funders and implementers with realistic data to inform their decisions.