In order to use the full power of the tool—and to avoid the misunderstanding highlighted by Chopra *et al.*[1]—LiST should not only be used to capture 'gains' (lives saved) but also possible 'losses' (lives lost) as well. Capturing losses illustrates the importance of maintaining a system (e.g. immunization) or continuing life-saving household/family behaviours (e.g. exclusive breastfeeding, as countries may experience widespread behaviour changes with urbanization). Expressing 'lives lost' will allow users to also better understand the importance of continuing to invest in mature, population-based preventive interventions with high coverage.

To illustrate the 'lives lost' potential of the tool, we have run LiST first as is normally done (left) and then in the opposite direction (right), using South Africa as an example with coverage (based on South Africa's reported coverage to illustrate the point in Chopra *et al.*) for the third dose of diphtheria–tetanus–pertussis (DTP) coverage (Figure 1a and b).

Running LiST in the opposite direction gives users an idea of the lives already being saved by 'successful' interventions—and highlights the importance of continuing to invest in these interventions, to maintain as well as further increase their coverage. When running LiST in the opposite direction, users should understand that the tool uses a proportional cause-specific (not intervention-focused) mortality calculation. The calculation first takes into account preventive measures (and assigns a protective factor in the formula), and then considers curative measures. When coverage of preventive interventions is reduced (e.g. running LiST in the opposite direction for DTP3), greater weight is placed on the potential impact of curative interventions—which will then diminish the effect on estimates attributable to 'lives lost'.

Without thorough guidance about how to modify or use the tool, so that a typical user can model the number of lives being saved with continued successful use of an intervention at baseline (by showing 'lives lost') plus additional lives saved if coverage increases, we fear that LiST will be viewed by decision makers as 'turn-key'. It could also run the risk of being used as a stand-alone tool rather than as part of a series of planning tools as apparently intended.

It is important for users to look at the comprehensive effects of prioritization with the tool—for new and low-coverage interventions that need to be strengthened and high-coverage interventions that need to be maintained and further strengthened. Furthermore, LiST does not assess health system constraints, thus giving no idea of the cost implications of increased coverage, that is, how credible a target is given the weaknesses of the current health system. Similarly, LiST does not distinguish between achieving mortality reductions with relatively cost-effective preventive interventions such as immunization or vitamin A supplementation vs reliance on more costly curative interventions.

We encourage the LiST authors to incorporate clearer instructions into the tool so that the typical user can operate LiST at its full power—to express lives saved as well as lives lost if gains in higher coverage interventions are not maintained.

Reference

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Development and use of the Lives Saved Tool: a model to estimate the impact of scaling up proven interventions on maternal, neonatal and child mortality

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Robert Steinglass *et al.*[1] highlight that 'how' the Lives Saved Tool (*LiST*) gets used is a critical issue and we fully agree. *LiST* is to be used to assess the potential mortality impact of improving the coverage of interventions whether they are long-standing or new ones. They are not correct in saying that it is primarily being used to advocate for new or low-coverage interventions. It estimates the additional effects of this increased coverage giving first priority to preventive interventions, such as immunizations. What Steinglass *et al.* are calling 'advocacy' we understand as promoting evidence-based decision making for planning the appropriate expansion of interventions. Of course, interventions that are already at high coverage will have

little marginal benefit with small changes in implementation, but that does not reduce their importance if they are still addressing sizable causes of death. In fact, achievement of high coverage of interventions like immunization increases the plausibility of rapid scale-up of other vaccines or interventions that can be added to the immunization platform, and these effects can be modelled in *LiST*.

In relation to the past mortality reduction associated with established interventions, we have clearly stated that one of the criteria used for the inclusion of the interventions in *LiST* was to incorporate those that are not likely to have an impact on mortality because of its current high coverage, but that would probably result in an increase in mortality where coverage levels are not sustained (e.g. measles and Diphtheria, Pertussis and Tetanus (DPT) vaccines).[2] Moreover, we believe that the two figures on 'estimated lives saved' and 'estimated lives lost' are misleading. The latter shows that lives lost reduces from 97 to 0% in 1 year, while the figure on lives saved presents a slow increase, from 97 to 100% in 5 years. It is unrealistic to model a drop from 97 to 0% coverage of any well-established intervention especially immunizations. In the current version of *LiST*, if users do lower coverage of an intervention, there is an explicit warning that this should not be done, although the users can ignore the warning and continue with their model run.

Users can obviously make use of the tool in both ways: looking at future and past gains as Steinglass *et al.* have done. If a lower coverage for a preventive intervention is entered, *LiST* still gives priority to preventive interventions but some of the possible deaths that have not been prevented are subsequently averted by therapeutic interventions. There is no question that successful interventions that have already reached high coverage and saved an important number of lives not only need to at least maintain but also increase their levels of coverage. However, there are still about 9 million children under-5 years, including almost 4 million babies <28 days of life, dying every year, even with the high-level coverage of such interventions. There is an imperative need to focus on what more can be done to save these millions of lives. For example, it is urgent to set clear and achievable targets, estimate the likely impact of different interventions and delivery channels, implement effective strategies and monitor progress of their achievement, according to the needs and availability of interventions in different settings. There is need for flexibility and specificity; not for the one-size-fits-all models or packages. This is what *LiST* is designed to facilitate. Consideration of the costs of interventions is also important. As stated in at least two papers included in the series,[2,3] work is underway to include costing modules in the tool, which will allow for the estimates of cost-effective interventions as well as for the costs of increased coverage of specific interventions in different scenarios. In fact, in the current version of *LiST* one can output data files that can be read into the Marginal Budgeting for Bottlenecks software (MBB) that allows one to link the coverage and deaths averted estimates from *LiST* to MBB for costing and bottleneck analysis.

References

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Comment on: 'Kangaroo mother care' to prevent neonatal deaths due to pre-term birth complications

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Kangaroo mother care (KMC) is a promising way to prevent a portion of neonatal mortality associated with prematurity and infection. Lawn *et al.*[1] have conducted meta-analyses to summarize the available