KNOW YOUR TARGETS: HOW OPTIMAL RESOURCE ALLOCATIONS VARY WITH DIFFERENT OBJECTIVES

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**Results**

Relative to a baseline of current resource allocation when compared over a 10 year period, it was estimated that by efficiently allocating resources we could:

- Save 36,000 lives by optimising for AIDS-related deaths.
- Avert 310,000 new infections by optimising for incidence.
- Avert 160,000 DALYs by optimising for DALYs.

By instead compiling a set of epidemiological targets that incorporated:

- 50% reductions in sexual and injecting incidence.
- 50% reductions in AIDS-related deaths.
- Targets relating the vertical transmission.

It was found that the minimal amount of funding required (assuming allocative efficiency) to achieve the targets was a 7-fold increase on the current national budget.

The funding pool required to achieve the same targets should the current distribution of resources be kept constant is even greater, at 11 times the national budget.

**Conclusions**

- Outcomes can be substantially improved by reallocating resources across programs more efficiently.
- However, mathematically-optimal allocations may not sufficiently cover ethical and moral considerations, thus care should be taken when interpreting results.
- These analyses support the notion that the most efficient distribution of resources is highly dependent on the choice of desired objectives.
- These contrasting messages of how to spend money most effectively make it imperative for policy makers to know the objectives that they wish to achieve.
- The optimal distribution of resources also varies according to:
  - The characteristics of a country’s epidemic.
  - The amount of funding available.
  - The timeframes associated with the desired outcomes.

By setting constraints on the reduction of funding to certain programs, the improvement of outcomes through allocative efficiency can diminish and potentially disappear altogether.

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