Who, where, and how?

Developing scenarios for the rollout of oral PrEP in Kenya

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OPTIONS refers to PrEP as the product category (inclusive of all formulations of ARV-based HIV prevention), and refers to specific products by formulation designation and/or name (e.g. oral PrEP/FTC-3TC, topical PrEP/dapivirine ring, injectable H2Y/abacavir, etc.)

BACKGROUND

Planning for national oral PrEP rollout in Kenya

- In early 2017, Kenya was planning for the introduction of oral PrEP, the first in a new category of biomedical HIV prevention products.
- As the government considered the introduction of oral PrEP, questions were raised about how to phase rollout across districts and populations.
- While epidemiological and cost-effectiveness modeling traditionally guide decisions, these analyses often require significant time and resources and Kenya was seeking new, rapid analytical methods that could contribute to implementation planning in the absence of more robust methods.

METHODS

Rapid analytical methods based on existing data

- We reviewed district-level data and model estimates on HIV incidence and population demographics to identify districts where oral PrEP rollout would likely achieve the most impact on the national HIV epidemic.
- The OPTIONS Consortium, with work from FSG, a strategic consultancy, Avenir Health, a modeling analysis group, and VCT Health, a Kenya-based HIV prevention NGO, worked with NASCOP in Kenya to develop these analyses.

Proportion of National Adult 15+ New HIV Infections, 2015

Counts scored by impact and cost

- Based on district-level incidence and population data, five scenarios for oral PrEP rollout were created;
- There were two types of scenarios: three based on district-level HIV incidence data and two scenarios based on populations that span districts.
- Scenarios differ by the number of districts and people they would cover as well as the number of new infections that originate in those districts or populations.
- Based on the number of new recent infections originating in the districts in each scenario, a relative impact estimate for oral PrEP rollout was determined (high / medium / low impact).
- Based on the number of districts and population size in each scenario, a relative cost of oral PrEP rollout was determined (high / medium / low total cost).
- Based on this analysis, the following recommendations were made:
  - Population-specific rollouts (e.g., oral PrEP solely for key populations) will not reach a significant number of HIV infections.
  - District-level rollouts do reach significant numbers of new HIV infections – in particular, Scenarios #1 and #2 provide the best balance of impact and cost.

CONCLUSIONS

A rapid, low-cost approach to developing cost and impact comparisons effectively informed Kenya’s national implementation planning

- The rollout scenarios were used in Kenya’s national implementation planning for oral PrEP rollout by the national technical working group and NASCOP.
- While the need for further cost-effectiveness and impact modeling was recognized, this interim analysis was helpful in articulating general parameters and trade-offs of different scenarios for phased rollout of oral PrEP and helped inform decisions based on differing levels of resource availability.
- The scenarios were developed with minimal effort and resource requirement, and this type of analysis can be an effective complement to more resource-intensive modeling analyses, especially when those analyses require additional resources and time to complete.
- These scenarios informed Kenya’s National Strategic Framework for oral PrEP; this approach will be used to support planning for oral PrEP rollout in other countries in 2017 and 2018.

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