Effects of index client and geo-targeting on HIV case identification: an observational study

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Background

• HIV case finding is the first step in providing services that will help end the epidemic
• Resources for HIV case finding are limited therefore efficiency is important
• Standard approaches to HIV testing have not been effective in addressing this gap
• Our objective was to evaluate a targeted approach for HIV case identification in a PEPFAR-supported HIV programme in Nigeria
Methods

• Between October 2016 and June 2017, we implemented a strategy that included index client testing, geo-targeted HIV testing, and provider-initiated counselling and testing in 14 local government areas in four Nigerian states.

• The tests were administered in conjunction with the conventional method of testing and were in line with the PEPFAR impact agenda.

• We estimated the number of individuals who needed to be tested by each method to meet a benchmark of 11 000 new clients on treatment per quarter. We described dispersion using median and interquartile range (IQR).
Methods

• **Geo-targeted testing**
  – Testing data is overlaid on GIS maps
  – This heat maps are used to determine areas to focus on by testing teams
  – The maps are constantly updated
  – Persistently ‘hot’ locations (hotspots) attract further enquiries as to possible drivers
  – Map shown is example from Akwa Ibom state
Methods

• PITC Optimization
  – Healthworker sensitization
  – Setting up HIV testing at multiple service delivery points within health facilities
  – Sensitization of health facility users
  – Monitoring hospital attendance versus number of persons tested per week
Methods

- **Index testing**
  - Persons testing HIV positive from other methods become index clients offered additional case finding efforts
  - Premise: “80% of HIV spread is within sexual networks, HIV case finding therefore should focus there”
Findings

• Conventional methods across the 14 LGAs required testing of 8,271,000 individuals (median 50,000, IQR 741,000) whereas using our targeted approach, we met 60% of the benchmark in each quarter by testing 214,000 individuals (median 14,000, IQR 12,000)
Findings

- Provider initiated testing and counselling accounted for the highest volume of testing with 5.0% positivity rate
- Index testing had a positivity rate of 15.6% (new diagnosis only)

Yield and volume analysis by testing stream

Testing in 14 scale-up LGAs (Oct 2016 to Jun 2017)
Conclusion

• We demonstrated that use of a targeted approach to HIV testing can increase the efficiency of case identification
• This process can therefore be important in scaling up to achieve the 1st and 2nd 90’s of the 90-90-90 elimination goal