Background

- Botswana has a severe HIV epidemic (23% adult HIV prevalence) with a high annual HIV incidence (1.3%).
- In 2004, Botswana became Africa’s first country to routinely “opt out” provider-initiated HIV testing and counseling (PITC) at health facilities, though it is rarely implemented in Emergency Departments (EDs).
- EDs provide episodic, unplanned care to large volumes of undifferentiated patients. Thus, EDs provide an opportunity to capture patients with undiagnosed HIV infection missed by other facility-based HIV testing.
- We evaluated the frequency of detecting undiagnosed HIV infection in the ED and other PITC settings using data from a national HIV testing program in Botswana.

Methods

- From January 2018 to September 2019, HIV testing was conducted by program counselors at 149 facilities.
- Electronic data captured demographic information (age, sex, citizenship) and testing date, location and result.
- Data were included from individuals’ first HIV test during the program within ED, voluntary counseling and testing (VCT), or other PITC settings.
- We excluded from risk-based testing strategies (e.g., index testing, STI clinics, TB clinics, etc.) and records without HIV test results available. Only observations from first HIV tests were included.
- We excluded records from antenatal care clinics and rapid-based testing strategies (e.g., date testing, STI clinics, TB clinics, etc.) and records without HIV test results available. Only observations from first HIV tests were included.
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Results & Conclusions

Figure 1. Distribution of 149 facilities in 16 districts, including 55 EDs (indicated in red)

Figure 2. Distribution of individuals who HIV tested, by department

Table 1. Characteristics of HIV testers in Botswana from January 2018 to September 2019, by HIV testing department

- Frequency of HIV detection in EDs was 2-fold higher than in VCT (prevalence ratio[PR]=2.2, 95% CI 1.4-3.3, p<0.001) and 1.4-fold higher than in other PITC (OR=1.4, 95% CI 1.1-1.9, p=0.03).
- Those who tested HIV-positive in EDs less frequently initiated same-day ART (71% vs 82%, PR=0.9, 95% CI 0.8-1.0, p=0.003).
- HIV testing was successful within EDs in Botswana and yielded higher frequency of detecting undiagnosed HIV infections than VCT or other PITC; however, immediate ART initiation was less frequent. ED HIV testing programs should strengthen linkage to care.

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*contact: jpinlye@uw.edu