Routine HIV testing in adolescents and young adults presenting to an outpatient clinic in Durban, South Africa

Lynn Ramirez-Avila, MD, MSc
Kristy Nixon, MPH
Farzad Noubary, PhD
Janet Giddy, MBChB, MFamMed
Elena Losina, PhD
Rochelle P. Walensky, MD, MPH
Ingrid V. Bassett, MD, MPH
Background: Adolescents and young adults in South Africa

- There are approximately 15 million adolescents and young adults (15-24 years)

- Adolescents and young adults represent a high HIV risk group
  - National HIV youth prevalence 8.7%

- Steep rise in HIV prevalence in transition to adulthood
  - Female HIV prevalence
    - 15-19 years: 6.7%
    - 25-29 years: 32.7%

Statistics South Africa 2010; Shisana et al, 2008
Background: Adolescent and young adult HIV testing

- Uptake of HIV testing low amongst youth
  - Approximately 25% female and 15% male youth report prior HIV testing

- South African mass HIV testing campaign
  - Mobilize young people for testing
  - Provide youth-friendly testing services

- Youth ≥ 12 years considered adults in the general medical system and often in HIV testing programs

Pettifor et al, 2005; SANAC February 2010; Stefan 2008
Objectives

- This analysis had two objectives:
  1) To assess the HIV testing uptake
  and
  2) To determine the HIV prevalence in adolescents and young adults presenting to an outpatient clinic with a routine HIV testing program in Durban, South Africa
Methods: Study Site

- Retrospective, cross-sectional analysis
- McCord Hospital outpatient clinic
  - Durban, Kwa-Zulu Natal
  - Subsidized fee for clinic services
- *All* patients ≥12 years presenting to the outpatient clinic offered routine HIV testing on an ‘opt-out’ basis
  - Testing part of triage process
  - HIV testing included in clinic fee
  - Two concurrent fingerprick rapid tests
  - Patients ≥12 years can consent for HIV testing per South African law
Methods: Study population

- Adolescents (12-17 years)
- Young adults (18-24 years)
- From February 2008-December 2009
  - Study period 23 months
- Registered for outpatient clinic services
  - When HIV counselor available
    - Monday through Saturday
    - 7:30 am to 4 pm
Methods: Data collection

- Outpatient clinic registration record
  - Number of unique registrations

- HIV testing record
  - Number of tests and number of new diagnoses
Methods: Data analysis

- Primary outcome
  - Proportion of adolescents and young adults who underwent HIV testing by gender

- Secondary outcome
  - HIV prevalence among adolescents and young adults who underwent testing by gender
### Results: Number of unique outpatient clinic registrations

<table>
<thead>
<tr>
<th></th>
<th>Total</th>
<th>Female (%)</th>
<th>Male (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Adolescent (12-17 yrs)</strong></td>
<td>956</td>
<td>527 (55)</td>
<td>429 (45)</td>
</tr>
<tr>
<td><strong>Young Adult (18-24 yrs)</strong></td>
<td>2,351</td>
<td>1,492 (63)</td>
<td>859 (37)</td>
</tr>
</tbody>
</table>

- 23 month study period
## Results: Proportion adolescents and young adults HIV tested

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Tested (%)</th>
<th>Females tested (%)</th>
<th>Males tested (%)</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Adolescent</strong></td>
<td>389/956 (41)</td>
<td>260/527 (49)</td>
<td>129/429 (33)</td>
<td>&lt;0.01</td>
</tr>
<tr>
<td>(12-17 yrs)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Young Adult</strong></td>
<td>1,523/2,351 (65)</td>
<td>980/1,492 (66)</td>
<td>543/859 (63)</td>
<td>N/S</td>
</tr>
<tr>
<td>(18-24 yrs)</td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

- 23 month study period
- Z-test for proportions
Results: Number of females HIV tested

- Presented at the 3rd HIV Pediatrics Workshop, 15 – 16 July 2010, Rome, Italy
Results: Proportion females HIV tested
Results: Number males HIV tested
Results: Proportion males HIV tested

Presented at the 3rd HIV Pediatrics Workshop, 15 – 16 July 2010, Rome, Italy
**Results: HIV prevalence amongst those tested**

<table>
<thead>
<tr>
<th>Age Group</th>
<th>HIV-infected (%)</th>
<th>Female (%)</th>
<th>Male (%)</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adolescent (12-17 yrs)</td>
<td>62/389 (16)</td>
<td>42 (16)</td>
<td>20 (16)</td>
<td>N/S</td>
</tr>
<tr>
<td>Young Adult (18-24 yrs)</td>
<td>288/1,523 (19)</td>
<td>213 (22)</td>
<td>75 (14)</td>
<td>&lt;0.01</td>
</tr>
</tbody>
</table>

- 23 month study period
- Z-test for proportions
Results: HIV prevalence among those tested

Pettifor et al, 2005
Results: Proportion HIV tested and HIV prevalence by age
Limitations

- This outpatient clinic may not be representative of public sector clinics because there is a fee for clinic services

- Cross sectional data:
  - Possible reason for HIV test refusal include prior testing or known HIV-infected status

- Risk factors associated with declining HIV testing unknown among youth
Conclusions

- Despite a well-established routine HIV testing program for patients ≥12 years, uptake of HIV testing is low among adolescents in an outpatient clinic in Durban, South Africa
  - HIV testing adolescent males 33% and females 49%

- The HIV prevalence amongst youth tested in an outpatient clinic is high
  - Adolescents males and females 16%
  - Young adults males 14% and females 22%

- There is a wide gap in the HIV testing and HIV prevalence amongst young adolescents
Implications

- Urgent need to offer comprehensive and youth-friendly HIV testing to adolescents and young adults in epidemic settings
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