HIV in the Caribbean

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The Caribbean

Diversity
- Geography: flat to mountainous
- Languages: English, Spanish, French, Dutch, Creole
- 42m population: ~5,000 (Montserrat) to 11.5M (Cuba)
- 28 Countries

Unity
- CARICOM, CARPHA, UWI

Economy
- Heavily tourist dependent (20m visitors per year)
- Tourism major source of revenue
- Poverty and inequality common

Religion
- Deeply religious (Christian)

HIV
- 2nd highest regional HIV prevalence
## Select National HIV Prevalence | 2017

<table>
<thead>
<tr>
<th>Country</th>
<th>Number PLHIV</th>
<th>Adult HIV prevalence (%)</th>
<th>Number AIDS deaths</th>
<th>ART coverage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bahamas</td>
<td>5,300</td>
<td>1.9</td>
<td>No Data</td>
<td>57</td>
</tr>
<tr>
<td>Barbados</td>
<td>2,700</td>
<td>1.6</td>
<td>&lt;100</td>
<td>49</td>
</tr>
<tr>
<td>Belize</td>
<td>4,500</td>
<td>1.9</td>
<td>&lt;200</td>
<td>31</td>
</tr>
<tr>
<td>Cuba</td>
<td>30,000</td>
<td>0.4</td>
<td>&lt;500</td>
<td>66</td>
</tr>
<tr>
<td>Dominican Republic</td>
<td>67,000</td>
<td>0.9</td>
<td>2,600</td>
<td>52</td>
</tr>
<tr>
<td>Guyana</td>
<td>8,200</td>
<td>1.7</td>
<td>&lt;200</td>
<td>64</td>
</tr>
<tr>
<td>Haiti</td>
<td>150,000</td>
<td>1.9</td>
<td>4,700</td>
<td>64</td>
</tr>
<tr>
<td>Jamaica</td>
<td>34,000</td>
<td>1.8</td>
<td>1,500</td>
<td>34</td>
</tr>
<tr>
<td>Suriname</td>
<td>4,800</td>
<td>1.3</td>
<td>&lt;200</td>
<td>51</td>
</tr>
<tr>
<td>Trinidad and Tobago</td>
<td>11,000</td>
<td>1.1</td>
<td>&lt;500</td>
<td>62</td>
</tr>
<tr>
<td>Region</td>
<td>310,000</td>
<td>1.2</td>
<td>10,000</td>
<td>57</td>
</tr>
</tbody>
</table>
New HIV Infections and AIDS Deaths in the Caribbean

New HIV Infections

AIDS-Related Deaths
Modes of HIV Transmission in the Caribbean

- Generalised and concentrated epidemic
- Predominantly heterosexual intercourse (exception MSM Cuba)
- MTCT low
- IDU extremely low (exception Puerto Rico and Bermuda)
- Key subpopulations:
  - MSM
  - Sex workers
  - Drug users


UNAIDS special analysis, 2018
Key Subpopulations: Female Sex Workers

- Suriname/2012: 3.9
- Jamaica/2011: 4.5
- Haiti/2014: 8.7
- Guyana/2014: 5.5
- Dominican Republic/2012: 3.7
- Cuba/2015: 0.1
- Antigua and Barbuda/2013: 2.6
Female Sex Workers | Jamaica

- 95% condom use with last client
- Unprotected sex with non-paying partner common
- 65% know HIV status
- STI in street FSW:
  - ~25% Trich. Pos.
  - ~15% CT Pos.
  - ~10% GC Pos.
- HIV prevalence decreased from 9% in 2005 to 2% in 2017
### Key Subpopulations: Men Who Have Sex With Men

<table>
<thead>
<tr>
<th>Country</th>
<th>Year</th>
<th>Prevalence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trinidad and Tobago</td>
<td>2015</td>
<td>31.6</td>
</tr>
<tr>
<td>Saint Vincent and the Grenadines</td>
<td>2011</td>
<td>29.58</td>
</tr>
<tr>
<td>Saint Kitts and Nevis</td>
<td>2011</td>
<td>1.25</td>
</tr>
<tr>
<td>Jamaica</td>
<td>2013</td>
<td>32.8</td>
</tr>
<tr>
<td>Haiti</td>
<td>2015</td>
<td>12.9</td>
</tr>
<tr>
<td>Guyana</td>
<td>2014</td>
<td>4.9</td>
</tr>
<tr>
<td>Dominican Republic</td>
<td>2012</td>
<td>7.09</td>
</tr>
<tr>
<td>Dominica</td>
<td>2011</td>
<td>26.67</td>
</tr>
<tr>
<td>Cuba</td>
<td>2015</td>
<td>1.8</td>
</tr>
<tr>
<td>Barbados</td>
<td>2014</td>
<td>14.4</td>
</tr>
<tr>
<td>Bahamas (the)</td>
<td>2011</td>
<td>13.89</td>
</tr>
<tr>
<td>Antigua and Barbuda</td>
<td>2013</td>
<td>2.5</td>
</tr>
</tbody>
</table>

Men Who Have Sex With Men | Jamaica

- 88% do not always use a condom
- ~15% have STI (other than HIV)
- 52.9% HIV positive amongst transgender MSM
- 58% indicated little or no chance of getting HIV
- 60% of HIV+ MSM did not disclose status to partner
- 56% of MSM bisexual

Figueroa JP et al, 2015
Factors Driving the HIV Epidemic in the Caribbean

• Major high risk behaviors of heterosexual men:
  – Multiple partners
  – Transactional sex
  – Unprotected sex with sex workers

• High HIV rates among MSM due to unprotected anal intercourse with multiple partners

• High rates of bisexuality among MSM act as a bridge for HIV to reach the general population

• High rates of sexually transmitted infections

• Majority of men not circumcised
Primarily rapid 3\textsuperscript{rd} generation

- Cost
- Time

4\textsuperscript{th} generation available but not used for routine testing

- Cost
HIV Testing and Care Continuum | 2017

**Jamaica**

- PLHIV: 35,000
- Aware of HIV Status: 90%
- On Treatment: 90%
- Viral Load Suppression: 90%

**Suriname**

- PLHIV: 5,000
- Aware of HIV Status: 90%
- On Treatment: 90%
- Viral Load Suppression: 90%

**Dominican Republic**

- PLHIV: 70,000
- Aware of HIV Status: 90%
- On Treatment: 90%
- Viral Load Suppression: 90%

**Cuba**

- PLHIV: 30,000
- Aware of HIV Status: 90%
- On Treatment: 90%
- Viral Load Suppression: 90%
Antiretroviral Therapy

- 57% ART coverage in Caribbean
- Test and treat
  - January 2018 (Jamaica)
- Adherence
  - Social status and stigma
- Resistance
  - TDR ~10% (Jamaica)#
- Cost
  - Jamaica: Free to public
  - National cost barrier for newer ARV
- PrEP
  - Pilot 2019 (Jamaica)@

### Jamaica ARV Treatment Guidelines

<table>
<thead>
<tr>
<th>Treatment Line</th>
<th>Drugs</th>
</tr>
</thead>
<tbody>
<tr>
<td>1&lt;sup&gt;st&lt;/sup&gt; (1&lt;sup&gt;st&lt;/sup&gt; choice)</td>
<td>Tenofovir</td>
</tr>
<tr>
<td>1&lt;sup&gt;st&lt;/sup&gt; (2&lt;sup&gt;nd&lt;/sup&gt; choice)</td>
<td>Abacavir or Zidovudine</td>
</tr>
<tr>
<td>2&lt;sup&gt;nd&lt;/sup&gt; (1&lt;sup&gt;st&lt;/sup&gt; choice)</td>
<td>Tenofovir</td>
</tr>
<tr>
<td>2&lt;sup&gt;nd&lt;/sup&gt; (2&lt;sup&gt;nd&lt;/sup&gt; choice)</td>
<td>Abacavir or Zidovudine</td>
</tr>
<tr>
<td>3&lt;sup&gt;rd&lt;/sup&gt;</td>
<td>Raltegravir</td>
</tr>
</tbody>
</table>

*Reaction use emtricitibine

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#Preliminary data (Geoffrey Barrow, personal communication)

@25 MSM and 25 serodiscordant (Geoffrey Barrow, personal communication)
Pediatrie | Maternal ARV Coverage and Transmission Rates

From 2000 ~70% decrease in new children infected

UNAIDS estimates 2017
Pediatric | Select Countries eMTCT

7 COUNTRIES ACHIEVED MTCT ELIMINATION STATUS

<table>
<thead>
<tr>
<th>2017 MTCT Status</th>
<th>Select Caribbean Countries</th>
</tr>
</thead>
<tbody>
<tr>
<td>eMTCT</td>
<td>Anguilla, Antigua and Barbuda, Bermuda, Cayman Islands, Cuba, Montserrat, St Kitts and Nevis</td>
</tr>
<tr>
<td>&gt;95% ARV</td>
<td>Dominican Republic, Jamaica</td>
</tr>
<tr>
<td>&lt;95% ARV</td>
<td>Bahamas (51%), Belize (41%), Guyana (64%), Haiti (70%), Suriname (76%), Trinidad and Tobago (81%)</td>
</tr>
</tbody>
</table>

UNAIDS estimates 2017
Challenges

- ART adherence
- Reducing stigma/discrimination
- Cost of epidemic response
- High turnover of clinical staff
- Medical training in HIV is lacking
- Prevention
- General sexual behavior
- Research funding
Current work:
• ARV resistance
• GC AMR

Planned work:
• PrEP
• Asymptomatic STI in PLHIV
• Survey of co-morbid CVD and diabetes biomarkers in PLHIV
Progress

- Increasing ART coverage
- Decreasing AIDS deaths
- Many countries near or complete eMTCT
- PrEP
  - Available in public health system for Bahamas and Barbados
  - Available privately in Dominican Republic, Jamaica and Suriname
- Decriminilisation of homosexual sex
  - 2016 Belize
  - 2018 Trinidad and Tobago
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University Hospital of the West Indies
Treasurer, International AIDS Society

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