Continuum of care of the patients diagnosed with HIV in Belgium according to region of origin

D. Van Beckhoven
Scientific Institute of Public Health Belgium
Background

- Estimated 20,000 people living with HIV/AIDS in Belgium (prevalence ~0.2%)

- In Belgium, HIV epidemic is mainly concentrated in 2 population groups: MSM and migrants

New HIV diagnoses per year, Belgium, 1985-2012

[Diagram showing the number of new HIV diagnoses per year in Belgium from 1985 to 2012, categorized by region: Belgium, North Africa, Subsaharan Africa, Europe, Other: Asia, America, and Unknown nationality.]
Background

- Late HIV diagnosis (<350) in 2012: 33% among Belgians and 48% among non-Belgians
- HIV care is available through AIDS Reference Centres (>75%) or other medical centres – cART free of charge
- Urgent Medical Aid for undocumented migrants
HIV care cascade

- The HIV care cascade illustrates the continuum of HIV care, it estimates proportions of patients with full benefit of HIV care and of those lost along the continuum of HIV care

- Lost along continuum
  - Potentially higher risk of onward transmission
  - Higher morbidity & mortality

- Migrants (undocumented) face specific barriers along the continuum of care
Aim

To present estimates of the continuum of HIV care in Belgium according to patient’s region of origin
Methods

Data sources

Linkage of:

- **Register of new HIV diagnoses**
  Exhaustive registration of all new laboratory diagnoses of HIV

- **Belgian HIV cohort**
  Data on VL, CD4, ART, death of HIV-infected patients in care
Definitions

- **Linkage to care**: proportion of patients with a HIV care contact (at least 1 CD4 or VL recorded) among patients newly diagnosed with HIV (2007 – 2010)

- **Retention in care**: proportion of patients in care in 2010 remaining in care in 2011 (at least 1 VL or CD4 count recorded)

- **Proportion on cART**: proportion of patients on cART among patients retained in care

- **Proportion with suppressed VL**: proportion having VL <500 copies/ml, among patients retained in care and on ART
Continuum of HIV care in Belgium in 2011
Continuum of HIV care in Belgium by region of origin, 2011

<table>
<thead>
<tr>
<th></th>
<th>Belgians</th>
<th>Sub-Saharan Africans</th>
<th>Europeans</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diagnosed with HIV</td>
<td>97%</td>
<td>92%</td>
<td>91%</td>
<td>92%</td>
</tr>
<tr>
<td>Linked to HIV care</td>
<td>92%</td>
<td>84%</td>
<td>82%</td>
<td>75%</td>
</tr>
<tr>
<td>Retained in HIV care</td>
<td>92%</td>
<td>84%</td>
<td>84%</td>
<td>73%</td>
</tr>
<tr>
<td>On ART</td>
<td>81%</td>
<td>71%</td>
<td>71%</td>
<td>70%</td>
</tr>
<tr>
<td>Suppressed VL (&lt;500 cp/ml)</td>
<td>78%</td>
<td>69%</td>
<td>69%</td>
<td>69%</td>
</tr>
</tbody>
</table>

P-value Belgians vs non-Belgians adjusted for *gender, age at diagnosis, way of transmission

p*<0.001
Continuum of HIV care in Belgium by patient's region of origin, 2011

<table>
<thead>
<tr>
<th>% of HIV-diagnosed persons</th>
<th>Belgians</th>
<th>Sub-Saharan Africans</th>
<th>Europeans</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diagnosed with HIV</td>
<td>97%</td>
<td>95%</td>
<td>91%</td>
<td>92%</td>
</tr>
<tr>
<td>Linked to HIV care</td>
<td>92%</td>
<td>91%</td>
<td>84%</td>
<td>84%</td>
</tr>
<tr>
<td>Retained in HIV care</td>
<td>92%</td>
<td>91%</td>
<td>82%</td>
<td>84%</td>
</tr>
<tr>
<td>On ART</td>
<td>81%</td>
<td>71%</td>
<td>75%</td>
<td>73%</td>
</tr>
<tr>
<td>Suppressed VL (&lt;500 cp/ml)</td>
<td>78%</td>
<td>70%</td>
<td>70%</td>
<td>69%</td>
</tr>
</tbody>
</table>

P-value Belgians vs non-Belgians adjusted for *gender, age at diagnosis, way of transmission
Continuum of HIV care in Belgium by patient’s region of origin, 2011

<table>
<thead>
<tr>
<th></th>
<th>Belgians</th>
<th>Sub-Saharan Africans</th>
<th>Europeans</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diagnosed with HIV</td>
<td>97%</td>
<td>92%</td>
<td>92%</td>
<td>81%</td>
</tr>
<tr>
<td>Linked to HIV care</td>
<td>95%</td>
<td>92%</td>
<td>92%</td>
<td>78%</td>
</tr>
<tr>
<td>Retained in HIV care</td>
<td>84%</td>
<td>84%</td>
<td>82%</td>
<td>75%</td>
</tr>
<tr>
<td>On ART</td>
<td>75%</td>
<td>73%</td>
<td>71%</td>
<td>70%</td>
</tr>
<tr>
<td>Suppressed VL (&lt;500 cp/ml)</td>
<td>73%</td>
<td>73%</td>
<td>78%</td>
<td>69%</td>
</tr>
</tbody>
</table>

P-value Belgians vs non-Belgians adjusted for *gender, age at diagnosis, way of transmission ** and CD4 value at first visit.
Continuum of HIV care in Belgium by patient’s region of origin, 2011

<table>
<thead>
<tr>
<th>Stage</th>
<th>Belgians</th>
<th>Sub-Saharan Africans</th>
<th>Europeans</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diagnosed with HIV</td>
<td>97%</td>
<td>92%</td>
<td>92%</td>
<td>92%</td>
</tr>
<tr>
<td>Linked to HIV care</td>
<td>97%</td>
<td>91%</td>
<td>84%</td>
<td>92%</td>
</tr>
<tr>
<td>Retained in HIV care</td>
<td>97%</td>
<td>91%</td>
<td>84%</td>
<td>92%</td>
</tr>
<tr>
<td>On ART</td>
<td>97%</td>
<td>91%</td>
<td>84%</td>
<td>92%</td>
</tr>
<tr>
<td>Suppressed VL (&lt;500 cp/ml)</td>
<td>97%</td>
<td>92%</td>
<td>84%</td>
<td>92%</td>
</tr>
</tbody>
</table>

P-value Belgians vs non-Belgians adjusted for *gender, age at diagnosis, way of transmission ** and CD4 value at first visit
Interpretation: proportion of losses along the continuum of HIV care

Belgians

Non-Belgians

Still in Belgium?
Gap: Estimation of undiagnosed HIV infections

- In Europe, estimation of 30% PLHIV unaware
- France: 19% \(^2\) & UK: 24% \(^3\)
- Survey in Belgium among MSM:
  14% MSM HIV-positive thought they were HIV negative or were unaware of their status
- Other survey among migrants ongoing

---

2 Supervie V, Costagliola D. The spectrum of engagement in HIV care in France: strengths and gaps. 20\(^{th}\) CROI. Atlanta, USA: March 2013. Abstract # 1030.
Conclusion (I): cascade analysis

- Effect of migration to be taken into account in interpretation of HIV care cascade, especially for non-nationals

  *Investigations of PLHIV out of care in one US county reduced estimations from 27% to 16* 

- Linkage with vital registry for ascertainment of death and migration would improve estimations

- Improve our estimate of undiagnosed for nationals and non-nationals

---

Conclusion (II): HIV care

- Low attrition at each step of the continuum of HIV care in Belgium

- Weakness in linkage to and retention in HIV care of non-Belgians
  - Either inadequate access to care in Belgium
  - Either not residing in Belgium after HIV diagnosis & uncertain access to HIV care in country of residence.

- Strategies to reinforce access to care of migrants should be studied and put in place.
Conclusion (III): HIV care

- For the last 2 years, strong reduction in authorization to stay on the Belgian territory granted for medical reasons among HIV-infected undocumented migrants. This creates supplementary barriers to their access to HIV care.

- Access to and retention in care of all patients, whatever their origin, should be ensured, in Belgium or in other countries if we want to improve health and reduce transmission at global level.
Thank you!

All AIDS Reference Centres and AIDS Reference Laboratories

And co-authors:

J. Deblonde  P. Goubau  B. Vandercam
M.-L. Delforge  P. Lacor  M. Van Ranst
R. Demeester  M. Moutschen  E. Van Wijngaerden
S. De Wit  D. Piérard  L. Vandekerckhove
E. Florence  A. Sasse  C. Verhofstede,
K. Fransen  D. Vaira  BREACH Belgian
J.-C. Goffard  S. Van den Wijngaert  Research on AIDS & HIV Consortium