HIV outcomes beyond viral suppression

Prof Jeffrey V. Lazarus [Jeffrey.Lazarus@isglobal.org]

CHIP, Rigshospitalet, University of Copenhagen, WHO Collaborating Centre on HIV and Viral Hepatitis
Associate Researcher, ISGlobal, Hospital Clinic, University of Barcelona
Board Chair, AFEW International
Do you think PLHIV are receiving the services they need to prevent and treat comorbidities in your country?

- No, services need improving to care for comorbidities in PLHIV
- Somewhat, only some areas have suitable services available
- Yes, suitable services are available
- Do not know

PLHIV, people living with HIV.
Do you know the leading causes of death among PLHIV in your country?

- Yes
- No
- Do not know

PLHIV, people living with HIV.
Do you know the leading causes of hospital admission in PLHIV in your country?

- Yes
- No
- Do not know

PLHIV, people living with HIV.
Why ‘beyond viral suppression’?
Because HIV long-term living is a reality

Over the last three decades HIV/AIDS care has transformed markedly\(^1\)

- Understanding the virus and providing palliative care for those with HIV/AIDS
- The advent of antiretroviral therapy
- Now in the decade where long-term living is a reality

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Setting targets and measuring progress ‘beyond viral suppression’
The need for a new paradigm

The UNAIDS ‘90-90-90’ targets … time for a change?

90%  
Diagnosed

90%  
On treatment

90%  
Virally suppressed

The current state of the strategic response to HIV
Fast-Track Cities: Enhancing HIV care in 80 cities around the world to achieve 90-90-90 targets

- Accelerate and scale-up existing programmes and resources to support cities with a high HIV burden to achieve the global UNAIDS targets by 2020¹
- A global partnership supported by: Paris, IAPAC, UNAIDS, and the UN-Habitat¹

16 cities in Europe¹
Amsterdam (Netherlands), Athens (Greece), Barcelona (Spain), Berlin (Germany), Brighton and Hove (England), Brussels (Belgium), Bucharest (Romania), Cascais (Portugal), Geneva (Switzerland), Kyiv (Ukraine), Lisbon (Portugal), Madrid (Spain), Odessa (Ukraine), Paris (France), Porto (Portugal), Seville (Spain)

12 cities in North America¹
Atlanta (USA), Baltimore (USA), Denver (USA), Mexico City (Mexico), Miami (USA), New Orleans (USA), New York City (USA), Oakland (USA), Phoenix (USA), Providence (USA), San Francisco (USA), Washington DC (USA)

15 cities in Latin America/Caribbean¹
Buenos Aires (Argentina), Curitiba (Brazil), Havana (Cuba), Kingston (Jamaica), Mexico City (Mexico), Montevideo (Uruguay), Panama City (Panama), Port au Prince (Haiti), Quito (Ecuador), Rio de Janeiro (Brazil), Salvador de Bahia (Brazil), Santo Fe (Honduras), Santiago (Chile), San Miguelito (Panama), São Paulo (Brazil)

5 cities in Asia¹
Bangkok (Thailand), Delhi (India), Jakarta (Indonesia), Melboume (Australia), Mumbai (India)

1 city in Australasia
Melbourne (Australia)

31 cities in Africa¹
Abidjan (Côte d’Ivoire), Accra (Ghana), Algiers (Algeria), Bamako (Mali), Bangui (CAR), Blantyre (Malawi), Brazzaville (Congo), Casablanca (Morocco), Cotonou (Benin), Dakar (Senegal), Dar es Salaam (Tanzania), Djibouti (Djibouti), Douala (Cameroon), Durban (South Africa), Free Town (Sierra Leone), Johannesburg (South Africa), Kigali (Rwanda), Kinshasa (DRC), Lagos (Nigeria), Libreville (Gabon), Lilongwe (Malawi), Lubumbashi (DRC), Lusaka (Zambia), Makeni (Sierra Leone), Maputo (Mozambique), Nairobi (Kenya), Ouagadougou (Burkina Faso), Ouesso (Rep. of Congo), Pretoria (South Africa), Windhoek (Namibia), Yaoundé ( Cameroon)

IAPAC, International Association of Providers of AIDS Care; UNAIDS, The Joint United Nations Programme on HIV/AIDS.
The continuum of HIV services
An organising framework

The continuum of HIV services
National monitoring examples

Vietnam

Switzerland


Why is a new paradigm needed?
Health challenges: Ageing

The age profile of PLHIV is changing

Age distribution of HIV+ patients attending Modena HIV Metabolic Clinic (MHMC)¹

- **2003:** Median age 40 yrs (IQR:37-44)
  - Age at HIV diagnosis: 35

- **2012:** Median age 48 yrs (IQR:45-53)
  - Age at HIV diagnosis: 43

PLHIV, people living with HIV.

Health challenges: Comorbidities and multimorbidity

The risk of experiencing other illnesses is higher in PLHIV

CVD, cardiovascular disease; HTN, hypertension; T2DM, Type 2 diabetes; CKD, chronic kidney disease; PLHIV, people living with HIV.

Health challenges: Closing the gap

CLOSING THE MORBIDITY AND MORTALITY GAP BETWEEN PLHIV AND THE GENERAL POPULATION:
- Early testing and care\(^1\)
- Long-term treatment strategies\(^1\)
- Well tolerated and convenient ART\(^1\)
- Holistic approach to health\(^1\)

HIV AS A LONG-TERM CHRONIC ILLNESS BRINGS A NEW SET OF CHALLENGES:
- No longer about prolonging life with HIV but ensuring QoL\(^1\)
- Slowly starting to be addressed in global policy developments\(^1\)

ART, antiretroviral therapy; PLHIV, people living with HIV; QoL, quality of life.

Responding strategically: ‘Beyond viral suppression’

Beyond viral suppression of HIV – the new quality of life frontier

Jeffrey V. Lazarus1,2, Kelly Saheed-Harmon3, Simon E. Barton4, Dominique Costagliola5, Nikos Dedes6, Julia del Amo Valero7, Jose M. Gatteri8, Ricardo Baptista-Lete8, Luís Menšíao8, Kholoud Porter9, Stefano Vella10, and Jürgen Kri Rockstroh12

Abstract

Background: In 2016, the World Health Organization (WHO) adopted a new Global Health Sector Strategy on HIV for 2016–2021. It establishes 15 ambitious targets, including the ‘90-90-90’ target calling on health systems to reduce under-diagnosis of HIV, treat a greater number of those diagnosed, and ensure that those being treated achieve viral suppression.

Discussion: The WHO strategy calls for person-centered chronic care for people living with HIV (PLHIV), implicitly acknowledging that viral suppression is not the ultimate goal of treatment. However, it stops short of providing an explicit target for health-related quality of life. It thus fails to take into account the needs of PLHIV who have achieved viral suppression but still must contend with other intense challenges such as serious non-communicable diseases, depression, anxiety, financial stress, and experiences of or apprehension about HIV-related discrimination. We propose adding a ‘fourth 90’ to the testing and treatment target: ensure that 90% of people with viral load suppression have good health-related quality of life. The new target would expand the continuum-of-services paradigm beyond the existing endpoint of viral suppression. Good health-related quality of life for PLHIV entails attention to two domains: comorbidities and self-perceived quality of life.

Conclusions: Health systems everywhere need to become more integrated and more people-centered to successfully meet the needs of virally suppressed PLHIV. By doing so, these systems can better meet the needs of all of their constituents – regardless of HIV status – in an era when many populations worldwide are living much longer with multiple comorbidities.

Keywords: AIDS, HIV, Health policy, Health systems
‘Beyond viral suppression’:
Time for a ‘fourth 90’

90% 90% 90% 90%

Diagnosed  On treatment  Virally suppressed  Good health-related quality of life
‘Beyond viral suppression’: Operationalising the ‘fourth 90’

**Vietnam**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Estimated number of PLHIV</td>
<td>100%</td>
</tr>
<tr>
<td>PLHIV diagnosed</td>
<td>45%</td>
</tr>
<tr>
<td>PLHIV in care</td>
<td>38%</td>
</tr>
<tr>
<td>PLHIV who meet criteria for starting ART</td>
<td>33%</td>
</tr>
<tr>
<td>PLHIV receiving ART</td>
<td>33%</td>
</tr>
<tr>
<td>PLHIV on ART virally suppressed</td>
<td>23%</td>
</tr>
</tbody>
</table>

**Switzerland**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Estimated number of PLHIV</td>
<td>100%</td>
</tr>
<tr>
<td>PLHIV diagnosed</td>
<td>81%</td>
</tr>
<tr>
<td>PLHIV linked to care</td>
<td>80%</td>
</tr>
<tr>
<td>PLHIV retained in care</td>
<td>79%</td>
</tr>
<tr>
<td>PLHIV receiving ART</td>
<td>70%</td>
</tr>
<tr>
<td>PLHIV on ART virally suppressed</td>
<td>67%</td>
</tr>
</tbody>
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ART, antiretroviral therapy; PLHIV, people living with HIV.


@JVLazarus
Promising steps: The long view coalition: Driving progress toward the ‘fourth 90’

An imagined future by the HIV: The long view coalition

- People with HIV will see HIV specialists less frequently
- Care is delivered via an integrated care model
- Pre-emptive screening is routine e.g. chronic conditions
- Individuals seek online support from peers
- Personal health tools collect data but also provide guidance and make predictions
- Real-time monitoring and support is the mainstay
- Artificial intelligence doctors are commonplace
- Virtual clinics oversee large geographies
- Machine learning supports the information processing and decision-making of human doctors
- Data drives forward the standard of care at an individual and population level

A people-centred health systems approach
Achieving the ‘long view’ vision and ‘fourth 90’ target:
How do we get there?

... Through a people-centred health systems approach

Adapted from: van Olmen et al., BMC Pub Health 2012;12:774.
Toward a people-centred health systems approach and the ‘fourth 90’

Promising steps: The EuroSIDA clinic study

Disparities in HIV clinic care across Europe: findings from the EuroSIDA clinic survey

Percentage of clinics, %

<table>
<thead>
<tr>
<th>Service</th>
<th>East Europe</th>
<th>Non-East Europe</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drug/alcohol treatment services</td>
<td>p=0.36</td>
<td>p=0.23</td>
<td></td>
</tr>
<tr>
<td>Opioid substitution therapy</td>
<td>p=0.040</td>
<td>p=0.048</td>
<td></td>
</tr>
<tr>
<td>Mental health treatment and/or referral</td>
<td>p=0.27</td>
<td>p=0.37</td>
<td></td>
</tr>
<tr>
<td>Family planning counseling</td>
<td>p=0.32</td>
<td>p=0.99</td>
<td>p&lt;0.0001</td>
</tr>
<tr>
<td>HIV disclosure counseling available (1)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Staff trained in HIV disclosure counseling</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(2)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Care for patients during clinic visits (3)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&gt;5% of HIV-positive patients LTFU (A)</td>
<td></td>
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</tbody>
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A case study of integrated treatment
Two models in Porto, Portugal

Dedicated outpatient care centre at Joaquim Urbano Hospital

- Multidisciplinary team care with combined protocols

- Multiple health service collaboration

- Existing health programmes collaborate to deliver treatment at a patient convenient location
- Individually tailored
- Marked improvements in treatment adherence observed

HCV, hepatitis C virus; OST, opioid substitution therapy; TB, tuberculosis.
* Includes pulmonary diagnostic centres, HIV/HCV clinics, drug treatment centres, outreach teams, and sheltered housing.

Toward a people-centred health systems approach and the ‘fourth 90’

Promising steps: The beyond viral suppression coalition

Diagram showing Multi-Stakeholder Engagement with Co-funding and Steering committee.

- International
- European
- National
- Regional
- Local
What do health outcomes ‘beyond viral suppression’ mean for health systems?
The change in health systems:
Three levels of performance monitoring

**LEVEL 1:** What are European health systems *monitoring*?

- Proposed comparative HIV indicators
- Comparative measures of health access and outcomes for PLHIV

**LEVEL 2:** How are European health systems *performing*?

- Countries to integrate/adapt as appropriate to country context
- Additional indicators for assessing access to health services and outcomes

**LEVEL 3:** Additional indicators for assessing access to health services and outcomes

PLHIV, people living with HIV.
A people-centred health systems approach to going ‘beyond viral suppression’

Where do you fit in?

- How can health care providers influence leadership/governance?
- How can health care providers influence service delivery?
- How can health care providers influence resources?

Adapted from: van Olmen et al., BMC Pub Health 2012;12:774.
Thank you

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