Ensuring Efforts to Scale up, Strengthen and Sustain HIV Responses
A Project of the Joep Lange Institute

- Protect the quality of HIV treatment delivery
- Scale up community-based service delivery and advocacy
- Reinvigorate primary prevention
- Develop sustainable and equitable funding approaches
- A commitment to human rights protection
Challenges to Maintaining the Quality and Effectiveness of HIV Treatment

- Key populations are not reaching 90-90-90 goals
- Young adults and adolescents are not adequately engaged in testing or treatment
- Drug resistance rates are rising
- Drug shortages and stock-outs are widely reported
- Health systems are overburdened and shortages of health care workers are widespread
- Community systems are undervalued, underfunded, and under-utilized
HIV TESTING AND TREATMENT CASCADE

Across the cascade, the denominator for each step remains the same:
all people living with HIV.

- People living with HIV who know their status: 70% [51–84%]
- People living with HIV on treatment: 53% [39–65%]
- People living with HIV who are virally suppressed: 44% [32–53%]

90%

The percentage who know their HIV status is the same because the denominator is the same.

More than two out of three people know their HIV status.
This is a major hurdle in reaching 90–90–90 for many countries.

81%

This represents the same number of people on treatment—19.5 million. The percentages are different because the denominators differ.

This shows that nearly half of people living with HIV do not have access to treatment.

73%

The number of people living with HIV who are virally suppressed is the same: 16 million.

MIND THE GAP!!
These are the people left behind in 2016–20.7 million people living with HIV are not virally suppressed.

This shows that three out of five people living with HIV are not virally suppressed, meaning their health is at risk and they can transmit HIV to others.
KEY POPULATIONS ARE IMPORTANT IN ALL EPIDEMIC SETTINGS

**FIGURE 2.8. DISTRIBUTION OF NEW HIV INFECTIONS, BY POPULATION, GLOBAL, SUB-SAHARAN AFRICA AND COUNTRIES OUTSIDE OF SUB-SAHARAN AFRICA, 2015**


*Only reflects Asia and the Pacific, Latin America and Caribbean regions.
Missed opportunities for HIV testing and linkage in key populations: gay men and other MSM

Moscow

- 13% of people living with HIV know their status
- 36% of people living with HIV who know their status are on treatment
- 64% of people on treatment are virally suppressed

India

- 30% of people living with HIV know their status
- 68% of people living with HIV who know their status are on treatment
- 78% of people on treatment are virally suppressed

Prevalence of VLS among HIV-positive people in Zimbabwe is highest among older adults: 78.7 percent among HIV-positive females ages 45 to 54 years and 71.1 percent among HIV-positive males ages 55 years or older. In contrast, prevalence of VLS is distinctly lower among younger adults: 48.6 percent among HIV-positive females and 40.2 percent among HIV-positive males ages 15 to 24 years.

Similar gaps in viral suppression exist among young adults in Zimbabwe, which is facing insufficient funding for ARVs, human resource shortages, a deteriorating health system and heavy reliance on donor funding.

Pre-treatment NNRTI resistance in 11 LMICs

Source: WHO HIV Drug Resistance Report 2017
Rates of virologic failure and death are 23 times higher among people with pre-treatment NNRTI resistance who are treated with NNRTI-containing ART

Adapted from: Phillips et al; JID 2017
Risk of ongoing HIVDR $\rightarrow$ untreatable HIV in LMICs

Emergence of untreatable, multidrug-resistant HIV-1 in patients failing second-line therapy in Kenya

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Protease Inhibitor Resistance in the First 3 Years of Second-Line Antiretroviral Therapy for HIV-1 in Sub-Saharan Africa

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Accumulation of Protease Mutations among Patients Failing Second-Line Antiretroviral Therapy and Response to Salvage Therapy in Nigeria

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A quarter of people with second-line ART treatment failure in Kenya have exhausted current treatment options

$\sim$1 in 5 patients failing 2nd line ART in sub-Saharan Africa have resistance to PI’s after 3 years of treatment

63% of patients failing 2nd line ART have resistance to PI’s in Nigeria
Figure 2: Number of facilities reporting stockouts

Dem. Rep. of Congo

Percentage of facilities reporting stockouts

<table>
<thead>
<tr>
<th>All ARVs</th>
<th>77%</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARV excluded TDF/3TC/EFV</td>
<td>60%</td>
</tr>
<tr>
<td>Adult ARVs</td>
<td>74%</td>
</tr>
<tr>
<td>First line adult ARVs</td>
<td>74%</td>
</tr>
<tr>
<td>Second line adult ARVs</td>
<td>39%</td>
</tr>
<tr>
<td>Pediatric ARVs</td>
<td>32%</td>
</tr>
<tr>
<td>First line pediatric ARVs</td>
<td>27%</td>
</tr>
<tr>
<td>Second line pediatric ARVs</td>
<td>33%</td>
</tr>
<tr>
<td>Syrup for PMTCT</td>
<td>21%</td>
</tr>
<tr>
<td>Cotrimoxazole</td>
<td>27%</td>
</tr>
<tr>
<td>HIV Determine tests</td>
<td>48%</td>
</tr>
</tbody>
</table>

Source: MSF Stock out report, 2017
Table 13: Proportion of facilities by province for 2013 and 2014 reporting at least one ARV/TB stockout in the three months period prior to contact.

Source: MSF Stock out report, 2017
HCW Shortages

• In Kenya, a critical shortage of all HIV healthcare workers threatens expansion of HIV services, and there are poor working conditions contribute to problems attracting and retaining staff, esp. in rural and high-burden areas.

• In Malawi, severe HCW shortages threaten HIV scale-up: there are only 28 nurses and 2 doctors per 100,000 people.

• In Namibia, high vacancy and attrition rates and poor geographic distribution of public healthcare workers pose a major threat to achieving targets; 70% of doctors work in the private system, yet only 20% of patients get their care through it.

• Zambia has a critical shortage of HCW; approximately 40% of positions in the healthcare sector are vacant –more health workers are needed to enable scale-up of quality HIV/AIDS services;

Source: PEPFAR (2016) Country Operational Plan Strategic Direction Summaries from Kenya, Malawi, Namibia and Zambia
Scale up resources for community-based responses

• **Governments** should support community-based services for HIV treatment, prevention and support through funding, capacity building and technical support to CBOs and other independent entities engaged in HIV work. Such services should work in partnership with health systems. Social impact bonds tied to performance-based funding are one method to be explored to finance and expand community-driven work.

• **Governments** should also review and update existing laws and regulations in order to provide social contracting mechanisms and to broaden the role that civil society can play in health services delivery, including drug dispensary and HIV testing and counselling.

• **The Global Fund and other donors** should develop and support funding mechanisms for CBOs working at national, regional and global levels to advocate for human rights protections and provide technical support to local community-based service providers.

• **CBOs and civil society groups** must ensure that they establish the systems and procedures necessary to show how, why and where they are using increased funding.
Confront HIV drug resistance (HIVDR): Growing rates of drug resistance represent a real and significant threat to the continued success of the HIV response.

- **WHO** should take the lead in developing simplified messaging regarding HIVDR to help those outside of the research community understand its relevance and importance, including all donors, government health officials and policy makers, CBOs and other CSOs.

- **Governments** should (1) invest in increased laboratory capacity to better detect drug resistance and expand access to viral load testing; (2) invest in community-based, mobile technology-based and other adherence support services; and (3) ensure that supply chains can provide ARVs consistently without stock-outs or shortages at clinics. And, governments and donors must commit to ensuring access to second- and third line regimens so that treatment options are available for people with HIVDR.

- **WHO, UNAIDS, governments and researchers** should initiate a rapid, comprehensive analysis of DTG to give a more thorough understanding of its risks and opportunities, including for treatment-naïve individuals.
Realize the promise of new and mobile technology: Digital technologies deserve special attention as potential solutions for building and sustaining comprehensive, quality HIV responses

• **WHO** should develop guidelines for digital solutions. WHO indicators for quality of care by providers could be supplemented with a new set of mobile phone-based early warning indicators (EWIs) that are used by clients and communities to report on quality of care in a geo-targeted and real-time manner.

• **Governments and donors** should strengthen links with private-sector partners with expertise in digital technologies that are adaptable in specific contexts, including resource-constrained ones. In particular, linkage to mobile phone providers will allow for using new sets of data that can help target HIV treatment and prevention efforts and identify vulnerable populations as well as potential hotspots of HIV.

• **Governments, donors and other external partners (e.g., foundations),** also should establish and prioritize incentive-based programs that reward new and promising digital solutions targeted toward improving overall HIV responses and the experiences of the most vulnerable and key populations in particular.

• **Entrepreneurs in mobile technologies** should be stimulated to come up with digital solutions that support HIV prevention, ART supply chain management, HIV treatment and care and empower individuals as well as communities in monitoring and securing determinants of quality of care.