PEPFAR’s Data-Driven Response Across Facilities and Communities

Preventing HIV Transmission: Undetectable Viral Load

Preventing HIV: VMMC and DREAMS and Key populations
PEPFAR’s 3 Guiding Pillars

Controlling the HIV Pandemic

Accountability
Demonstrate cost-effective programming that maximizes the impact of every dollar invested

Transparency
Demonstrate increased transparency with validation and sharing of all levels of program data

Impact
Demonstrate sustained control of the epidemic; save lives and avert new infections

Active Program and Partner Management
Where are we?

Eastern and Southern Africa

Expansion of services through constant, deliberative collaboration between PEPFAR, GF, governments, and community

Demonstrated outcomes and impact; rapid policy adoption, continuous monitoring of progress

Key gaps

Focus prevention interventions to saturation
15-30 age group awareness of risk and HIV status
Men – all ages
Clinical and prevention cascade for key populations
Inconsistent political will to address all key populations with necessary interventions
Where are we?

West/West Central Africa

Slow expansion of critical prevention and treatment services despite more $/PLWHA

Unclear epidemiology with mixed epidemics

Slow policy adoption, user fees – formal and informal- prevent access to health services; unrelenting stigma and discrimination; lack of definitive impact despite significant investment

Key gaps

Clinical and prevention cascade for key populations

Inconsistent political will to address all key populations with necessary interventions

Ensuring access to services for young people and men of all ages

Strategies to address stigma and discrimination
Where are we?

Key population epidemics – Eastern Europe, Central Asia, Asia, Caribbean and Latin/Central America

Dismal performance of prevention and treatment cascades - with PWID>>SW>MSM
Different issues in the cascades by risk group
Pilots without scaling

Unrelenting stigma and discrimination
Investments have not achieved impact

Key gaps
Clinical and prevention cascade for key populations
Inconsistent political will to address all key populations with necessary prevention interventions
Impactful strategies to address stigma and discrimination
What have we learned?

Dramatic expansion is possible if:

The core policies are adopted quickly and continuously evolving based on program needs and gaps

AND we are in constant communication with community and implementing partners to make rapid improvements
Swaziland Trends: HIV Prevalence Among Women 18-49 Years by Age, SHIMS 1 (2011) vs. SHIMS 2 (2016-17)
2015 vs 2017 survey results in Namibia

Zambezi 2015 (SISTER)
- Aware of HIV+: 64%
- ART of HIV+: 53%
- VLS of HIV+ on ART: 43%

Zambezi 2017 (Prelim. NAMPHIA)
- Aware of HIV+: 74%
- ART of HIV+: 71%
- VLS of HIV+ on ART: 68%
PEPFAR’s Accomplishments
Evidence of impact
PEPFAR: Remarkable Expansion of lifesaving services with flat budgets

Expansion through efficiencies
Expansion through 6-7B in pipeline

PEPFAR Bilateral Budget, in $Millions

# of people

Year

Cummulative VMMC  Current on HIV Treatment  PEPFAR Budget (Bilateral + GF HIV)
PEPFAR PROGRAM RESULTS

Over **14 million** women, men, and children on ART

Over **2.2 million** babies born HIV-Free

Over **15 million** voluntary medical male circumcisions

Over **6.4 million** orphans, vulnerable children, and caregivers provided with critical care and support

Over **65% of DREAMS districts** with a 25-40% decline in new HIV infections

Source: pepfar.gov, 2018
Reaching Epidemic Control
Since the Start of PEPFAR, New HIV Infections Have Declined 41-76%
Youth Bulge in Zambia

At the beginning of the Epidemic

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Population (in millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>Female</td>
</tr>
<tr>
<td>0 - 4</td>
<td>20 - 24</td>
</tr>
<tr>
<td>5 - 9</td>
<td>10 - 14</td>
</tr>
<tr>
<td>10 - 14</td>
<td>5 - 9</td>
</tr>
<tr>
<td>15 - 19</td>
<td>10 - 14</td>
</tr>
<tr>
<td>20 - 24</td>
<td>5 - 9</td>
</tr>
<tr>
<td>25 - 29</td>
<td>20 - 24</td>
</tr>
</tbody>
</table>

Young Men Population: 781,000
Young Men PLHIV: 38,000
Young Women Population: 772,000
Young Women PLHIV: 66,000

Where are we in progress to epidemic control
What Is “Epidemic Control”? And How Do We Define Success?

• PEPFAR defines epidemic control in standard epidemiologic terms, i.e., the point at which the annual number of new infections falls below the total number of deaths of HIV positive patients*; some have recently discussed 1/1,000 incidence rate.

• We support UNAIDS’ 90-90-90 targets (i.e., 90% of PLHIV to be diagnosed, 90% of those diagnosed to be covered on ART, and 90% of those on ART to be virally suppressed) \(0.9 \times 0.9 \times 0.9 = 73\%\) of all PLHIV virally suppressed is a sound alternative way to assess progress towards epidemic control.

* Though it should be noted that “dying our way into epidemic control” will not be accepted.
Malawi

66% HIV Treatment Coverage

Source: AIDSINFO, UNAIDS 2017
South Africa

Source: AIDSINFO, UNAIDS 2017
Cote D’Ivoire

41% HIV Treatment Coverage

Source: AIDSINFO, UNAIDS 2017
Rollout of PHIA Surveys

Source: ICAP, Feb 2018
Achieving Epidemic Control
Progress toward 90/90/90 in Adults

<table>
<thead>
<tr>
<th>Country</th>
<th>Aware of HIV Status</th>
<th>Treated</th>
<th>Virally Suppressed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Swaziland 15+ (2016)</td>
<td>85</td>
<td>87</td>
<td>92</td>
</tr>
<tr>
<td>Lesotho 15-59 (2016)</td>
<td>77</td>
<td>90</td>
<td>88</td>
</tr>
<tr>
<td>Zimbabwe 15-64 (2015)</td>
<td>74</td>
<td>87</td>
<td>86</td>
</tr>
<tr>
<td>Malawi 15-64 (2015)</td>
<td>73</td>
<td>89</td>
<td>91</td>
</tr>
<tr>
<td>Zambia 15-64 (2015)</td>
<td>67</td>
<td>85</td>
<td>89</td>
</tr>
<tr>
<td>Uganda 15-64 (2017)</td>
<td>66</td>
<td>88</td>
<td>83</td>
</tr>
<tr>
<td>Tanzania 15-64 (2017)</td>
<td>52</td>
<td></td>
<td>91</td>
</tr>
</tbody>
</table>

Source: Population-Based HIV Impact Assessments (PHIA) IMPACT Studies, 2016, 2017
Focus on Young People
Progress to 90/90/90 in 15 to 24 year olds

Note: Results based on self-report of HIV awareness and ART status (plus ARV testing in Malawi and Zambia), and on viral load testing.
### Viral load suppression at the community level after 15 years

#### Aged 15-64

<table>
<thead>
<tr>
<th>Country</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Swaziland</td>
<td>68%</td>
</tr>
<tr>
<td>Lesotho</td>
<td>61%</td>
</tr>
<tr>
<td>Zimbabwe</td>
<td>55%</td>
</tr>
<tr>
<td>Malawi</td>
<td>59%</td>
</tr>
<tr>
<td>Zambia</td>
<td>51%</td>
</tr>
<tr>
<td>Uganda</td>
<td>48%</td>
</tr>
<tr>
<td>Tanzania</td>
<td>42%</td>
</tr>
</tbody>
</table>

#### Aged 15-24

<table>
<thead>
<tr>
<th>Country</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Swaziland</td>
<td>42%</td>
</tr>
<tr>
<td>Lesotho</td>
<td>42%</td>
</tr>
<tr>
<td>Zimbabwe</td>
<td>34%</td>
</tr>
<tr>
<td>Malawi</td>
<td>34%</td>
</tr>
<tr>
<td>Zambia</td>
<td>26%</td>
</tr>
<tr>
<td>Uganda</td>
<td>26%</td>
</tr>
<tr>
<td>Tanzania</td>
<td>28%</td>
</tr>
</tbody>
</table>
The Largest Overall Gap: Awareness of HIV Positive Status by Age – Those Under 30 Often Unaware

Self-reported awareness of HIV status was corrected using detectable ARV data for Malawi, Zambia, Swaziland, and Uganda. ARV data are not yet available from Lesotho, Namibia, Tanzania, and Zimbabwe.
Progress Towards Epidemic Control

*Pooled data from Lesotho, Malawi, Namibia, Swaziland, Tanzania, Uganda, Zambia, and Zimbabwe from PHIA projects.*
Evolving the program to end the epidemic:

All populations by age, sex, and risk
GAP: Prevention and treatment Services for Young Men AND Adolescent Girls & Young Women

Young Women
DREAMS
Risk avoidance and reduction, PrEP

9-24 yo

Well Men
HIV Dx and ARV Tx

25-35 yo

HIV

15-30 yo

VMMC
Condoms
PrEP

Sexual violence prevention, PrEP

15-30 yo
Progress Towards Community Viral Load Suppression

Females
- Virally Suppressed
- 73% VLS
- 100% VLS

Males
- Virally Suppressed
- 73% VLS
- 100% VLS

73% VLS
ART Gap – Program Data and 2018 PLHIV PHIA Estimates

ePMS showed 169,081 people on ART in the public sector as of September 30, 2017, but does not include private sector patients on ART, currently reported to be ~18,600 of all ages. That would be ~185,000 PLHIV on ART.
Highest-Burden Districts

Distribution of coverage gap

% PLHIV on ART

<table>
<thead>
<tr>
<th></th>
<th>&lt;15</th>
<th>15-24</th>
<th>25+</th>
</tr>
</thead>
<tbody>
<tr>
<td>M</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>F</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

gp City of Johannesburg Metropolitan Municipality

gp City of Tshwane Metropolitan Municipality

gp Ekurhuleni Metropolitan Municipality

Kz eThekwini Metropolitan Municipality
Uneven Progress in Treatment Coverage, Spectrum 2016 Projection

<table>
<thead>
<tr>
<th>ART Coverage, Men 25y+, FY17</th>
<th>ART Coverage, Women 15-24y,</th>
<th>ART Coverage, Women 25y+,</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>ART Coverage</th>
<th>38%</th>
<th>47%</th>
<th>59%</th>
<th>82%</th>
</tr>
</thead>
</table>

| Unmet Need    | 55,949 | 94,245 | 186,737 | 126,087 |

GREEN: ≥90%
YELLOW: 81-89%
ORANGE: 71-79%
RED: <70%
“WHERE” – Geographical data on PLHIV burden

### TOP 5 INCREASES in burden by region

<table>
<thead>
<tr>
<th>Region</th>
<th>Change in burden</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tanga</td>
<td>27,322</td>
</tr>
<tr>
<td>Mwanza</td>
<td>19,714</td>
</tr>
<tr>
<td>Iringa</td>
<td>18,671</td>
</tr>
<tr>
<td>Geita</td>
<td>18,173</td>
</tr>
<tr>
<td>Mara</td>
<td>12,275</td>
</tr>
</tbody>
</table>

### TOP 5 DECREASES in burden

<table>
<thead>
<tr>
<th>Region</th>
<th>Change in burden</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dar es Salaam</td>
<td>-54,939</td>
</tr>
<tr>
<td>Arusha</td>
<td>-8,154</td>
</tr>
<tr>
<td>Mbeya/Songwe</td>
<td>-7,165</td>
</tr>
<tr>
<td>Kilimanjaro</td>
<td>-6,635</td>
</tr>
<tr>
<td>Kigoma</td>
<td>-6,934</td>
</tr>
</tbody>
</table>

*Indicates zero cases
Gap to 95-95-95 by Age and Sex: Focus Must be on **Men and Youth**

![Bar chart showing the gap to 95-95-95 by age and sex in different regions: Blantyre, Zomba, Mangochi, Machinga, Chikwawa. The chart highlights the percentage of the population meeting the 95-95-95 targets for each age group and gender.](chart-url)
Reaching Men 25 Years and Older is Crucial to Reaching 95-95-95

81% of Target Net New on ART for FY19 is in the 10 scale-up districts

64% of those we need to newly enroll on treatment are men 15-24 (16%) and 25+ (48%)

FY19 Net New on Treatment

- Blantyre: 11218
- Lilongwe: 8902
- Mangochi: 4619
- Zomba: 1221
- Mulanje: 1056
- Thyolo: 5568
- Mzimba: 2322
- Machinga: 2486
- Chikwawa: 840
- Phalombe: 1903

- Under 15
- 15-24 M
- 15-24 F
- 25+ M
- 25+ F
Some of the greatest gaps are in key population cascades
Ukraine National Cascade
excluding non-government controlled areas in est. PLHIV

- Est no. PLHIV: 202,328
- Know their HIV+ status=Registered in care, Oct 1, 2017: 139,394 (69%)
- In ART program, Nov 1, 2017: 163,886 (90%)
- Undetectable VL (<1,000): 44,746 with UVL / 49,497 tested in 2016 (90%)

- 90% of the estimated PLHIV are registered in care.
- 69% of those registered in care know their HIV+ status.
- 90% of HIV+ individuals are in ART.
- 90% of those in ART are undetectable (VL <1,000).

Note: 38% of the tested UVL individuals were undetectable (VL <1,000) in 2016.
Ukraine: Estimated undiagnosed PWID PLHIV and MSM PLHIV

Estimated number of undiagnosed HIV-positive PWID-PLHIV

Estimated number of undiagnosed HIV-positive MSM-PLHIV
Vietnam National Cascade by the end of 2017

<table>
<thead>
<tr>
<th>Category</th>
<th>Reached</th>
<th>Gap</th>
</tr>
</thead>
<tbody>
<tr>
<td>PLWHA</td>
<td>100%</td>
<td></td>
</tr>
<tr>
<td>Diagnosed</td>
<td>75%</td>
<td>15%</td>
</tr>
<tr>
<td>Receiving ARV</td>
<td>50%</td>
<td>31%</td>
</tr>
<tr>
<td>Viral suppression</td>
<td>46%</td>
<td>27%</td>
</tr>
</tbody>
</table>

PLWHA: Persons living with HIV/AIDS

Diagnosed: Individuals receiving HIV treatment

Receiving ARV: Virally suppressed individuals

Viral suppression: Individuals with undetectable viral load
Linkage to ART: Improving Key Populations Access to Treatment

**APR17**

- **47% Linkage to Care**
- **54% Linkage to Care**

**Q1 FY18**

- **79% Linkage to Care**
- **66% Linkage to Care**
FIRST 90

Missing: men under 35, women under 25, well children and infants, MSM

Optimizing testing strategies
Adjust the intensity of support & testing modalities to reach 95-95-95 by district & by sub-population
In the Five Acceleration Districts, Q2-Q4 **Yield Dropped** Across All Age and Sex Groups

Decreases in yield are highest among the populations we need to reach most.
In Tanzania, ICAP collected data on symptoms and HIV risk on ALL people tested in community setting (December/January).

<table>
<thead>
<tr>
<th></th>
<th>Tested</th>
<th>Positive</th>
<th>% yield</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIV Risk* only</td>
<td>13775</td>
<td>466</td>
<td>3.4%</td>
</tr>
<tr>
<td>Symptoms only</td>
<td>229</td>
<td>35</td>
<td>15.3%</td>
</tr>
<tr>
<td>Symptoms AND risk</td>
<td>182</td>
<td>30</td>
<td>16.5%</td>
</tr>
<tr>
<td>NO symptoms OR risk</td>
<td>12745</td>
<td>32</td>
<td>0.25%</td>
</tr>
<tr>
<td>TOTAL</td>
<td>26,931</td>
<td>563</td>
<td>2.1%</td>
</tr>
</tbody>
</table>
Scaling up Index Partner Testing

- Total indexed pts: 16,716
- Total Tested partners: 2,134
- Total Pos: 768
- Expected index clients: 79,926
- 80% coverage: 63,940
- Expected positives: 16,113
Why Male Friendly Corners

- Lesotho has the 2nd highest prevalence of HIV worldwide
- 25.6% of adult population (15-49) is living with HIV
- HIV-related disease leading cause of death
- Adult incidence high
  - 52 new infections occur daily
- Men believed to drive HIV epidemic among AGYW
- Men have poor health seeking behaviour
- Those who seek care do so very late (Lubega et al: 2015)
Key Strategies for HIVST Rollout

• Routine offer of HIVST for declining partners
• Integration of HIVST in all testing modalities
• Prioritize men, youth, and workplace distribution for HIVST distribution
• HIVST for key and priority populations
• Global Fund and GOL will procure HIVST kits
SECOND 90 : same day linkage
Linkage to ART: Days to Treatment

Days Between HIV Diagnosis and ART Start, FY17

% Started on ART

- Day 0: 61%
- 2-7 Days: 78%
- Within 30 days: 89%
- Within 90 days: 93%
Namibia: FY17 Tx_New; Time from HIV Diagnosis to ART Initiation, FY17 Q1 – Q4

Cumulative (%) Started on ART

Day 0
7 Days
30 days
90 Days

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

FY17 Q1 FY17 Q2 FY17 Q3 FY17 Q4 FY17 Q1 FY17 Q2 FY17 Q3 FY17 Q4 FY17 Q1 FY17 Q2 FY17 Q3 FY17 Q4 FY17 Q1 FY17 Q2 FY17 Q3 FY17 Q4

0 43% 47% 52% 61% 60% 63% 68% 78% 82% 81% 83% 89% 90% 89% 90% 93% 0 7 days 30 days 90 days
Sites targeted for intervention to improve viral suppression

9% of PEPFAR sites reported 100% TX_PVLS and 77% of PEPFAR sites reported TX_PVLS at ≥ 90%

Represents 44 sites. These sites will be targeted for improved viral suppression outcomes.
Challenges in viral suppression among children <15

27% of PEPFAR sites reported 100% TX_PVLS among pediatrics but 59% reported TX_PVLS at < 90%

Represents 108 sites. These sites will be targeted for improved viral suppression outcomes.
Challenges in viral suppression among young people 15-24 yrs

- 28% of PEPFAR sites reported 100% TX_PVLS among 15-24 year olds but 72% 15-24 were receiving care at sites with reported TX_PVLS at < 90%

- Represents 104 sites. These sites will be targeted for improved viral suppression outcomes.
Preventing infections in young men

15.2M voluntary medical male circumcision

Largest single-year increase (3.5M) in PEPFAR’s history
Cumulative Total: 15 million

Cost effective onetime intervention

60% relative risk reduction for acquisition of HIV for men

Observational evidence for protection of women for HIV and STI

Source: PEPFAR Results, 2004-2016
UPHIA 2016: HIV Prevalence by Age and Sex
Continue pivoting to focus VMMC on priority age bands
Preventing new infections in young women
Greater than 25-40% reduction in new HIV diagnoses among young women in nearly two-thirds (65%) of DREAMS-supported districts since 2015. 14 districts that had a decline of greater than 40%. Importantly, new diagnoses declined in nearly all DREAMS intervention districts.
DREAMS Programming

**STRENGTHEN THE FAMILY**
- Parenting/Caregiver Programs
- Cash Transfers
- Education Subsidy
- Socioeconomic Approaches

**MOBILIZE COMMUNITY FOR CHANGE**
- School-Based HIV & Violence Prevention
- Community Mobilization & Norms Change

- HIV risk avoidance, reduction and sexual violence prevention
- Condoms
- HIV Testing & Counseling
- Post-Violence Care

EMPOWER AGYW & REDUCE RISK

Mobilize the Community for Change: 26%
Strengthen the Family: 18%
Empower AGYW & Reduce Their Risk: 55%
Cash Transfers: 11%
School-Based HIV & Violence Prevention: 15%
Education Subsidy: 6%
Parenting/Caregiver Programs: 13%
Community Mobilization & Norms Change: 4%
Malawi DREAMS Efficiency
Building on Synergies with the OVC Platform

OVC

- Education Support
- Household Economic Strengthening
- Sexual Violence and HIV prevention programming for girls and boys 9-14
- Case Management
- Parenting Programs

DREAMS

- School based GBV and HIV Prevention Programming
- Condom Promotion and Distribution
- Sexual Violence and HIV prevention programming for girls 9-14
- Sexual and Reproductive Health Services
- Post Violence Care for 18+
- PrEP

Post violence care
Social Assets
Community mobilization and norms change
Parenting Programs 9-14
Case management services

9-17 year old AGYW = Target Group for Synergies
Mozambique: DREAMS is Reaching Targeted Sub-Groups

DREAMS Active Beneficiaries FY18 Q1, by Sub-Group and District*

Out-of-school
AGYW

- In-School girls
- Mothers, Pregnant or breastfeeding
- Married
- Vulnerable/at-risk
- HIV+

Xai Xai City
Xai Xai District
Chokwe
Beira
Quelimane
Nicoadala*

* Data from two partners: World Education and SCIP
### Early sexual debut associated with exposure to violence:

#### Adjusted Odds Ratios for early sexual debut among sexually active youth ages 19-24 years

<table>
<thead>
<tr>
<th></th>
<th>Adjusted Odds Ratios for Sexual Debut &lt;=15 years (95% Confidence Interval)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No childhood violence</td>
</tr>
<tr>
<td>Malawi</td>
<td>1.0</td>
</tr>
<tr>
<td>Rwanda</td>
<td>1.0</td>
</tr>
<tr>
<td>Haiti</td>
<td>1.0</td>
</tr>
<tr>
<td>Botswana</td>
<td>1.0</td>
</tr>
</tbody>
</table>
Percentage of 13-24 Year Old Female Respondents Who Reported First Sex as Forced/Coerced

Source: VACS, 2016

*Data for Zimbabwe only available for 18-24 year old female respondents.
PEPFAR’s Focus for COP18 & Beyond
Current State of the Epidemic and PEPFAR’s laser focus

Epidemic continues unchecked in men <35 and women < 25

Depth of the key population epidemic is SSA remains unknown

Access to health services is the key barrier in West Africa due to policies & formal/informal user fees

Focused prevention and treatment interventions must continue

Success is 95/95/95 across all age bands, genders and risk groups
Prevention: Increased focus needed to accelerate VMMC progress and DREAMS beneficiaries

• Ensure laser focused prevention interventions with new recency assay to map evolving epidemic

Geography – vast difference in HIV prevalence within each country; investments must continue to be targeted for impact

Populations – significant age gap in those we have reached and not reached impacting epidemic control: we have successfully reached women > 25 and men > 35, key population cascades are different and issues need to be addressed
Policies and political will to address the epidemic that exists

- Ensure an effective prevention and treatment cascade for children, young men and women and key populations
- Increased index and self testing as routine
- Increased TPT (IPT) as part of routine HIV treatment
- Implementation of the new cervical cancer strategy as part of routine HIV treatment of HIV + women
- Pilots to scale; talk and planning to action
- TLD transition
Going Forward: PEPFAR-specific priorities

• **Partner performance** must be constantly improved – especially in the high volume partners

• **Expenditures and results** must be monitored

• **Work plans** must:
  • Reflect the **targets and quarterly funding** linked to performance
  • Reflect the changes in **testing strategies** and funding dependent on **meeting results**
  • Reflect **outcomes** expected – i.e. VLS

• Future funding will be linked to partner and country performance
Thank You!
We are poised to make the impossible possible.