Session 5:

HIV test–treat–retain and cross-sectional cascade – data requirements and analysis

Kiromiddin Gulov

Objectives

- Learn how to use HIV test–treat–retain and cumulative cross-sectional cascade

- Learn about data requirements to construction of the cascade of HIV services for the cohort of newly diagnosed people living with HIV

- Learn to develop HIV cascade indicators

What is HIV test–treat–retain cascade?

HIV test–treat–retain

shows, in visual form, the number of PLHIV who actually receive the full benefits of HIV testing, care and treatment at each step along the continuum of care for PLHIV

HIV test–treat–retain

Is used to identify where, along the steps of the continuum of care, programs fail to engage and retain PLHIV in HIV testing, care and treatment. Also to determine the magnitude of the losses/gaps along the continuum, identify and analyze causes of the losses/gaps, issues and challenges related to policies, health systems, community systems and beneficiaries

How to carry out HIV test–treat–retain cascade analysis?
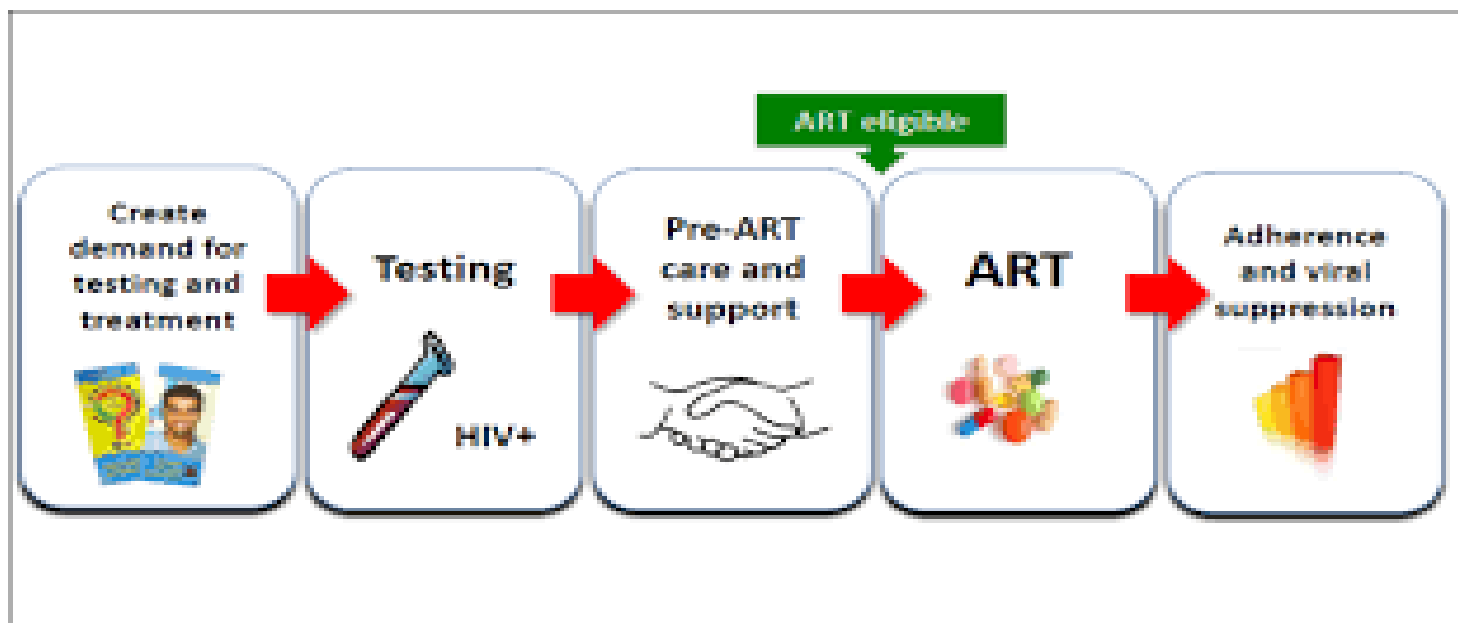
The following implementation process is proposed: (1)

1. Establishment of steering committee
2. Establishment of technical working group (terms of reference, recruitment of a national consultant if needed)
3. Collection of data to design the HIV test–treat–retain cascade; design the cascade and identify the main gaps along the steps of the cascade
4. Determination of further needs for quantitative and qualitative data that can explain the causes for the gaps

The following implementation process is proposed: (2)

5. identification and selection of key stakeholders for interviews/discussion and of places to be visited to fill information gaps

6. development of tools for collection and compilation of data

7. collection of relevant data

8. data analysis: quantification and description of the PLHIV engagement along the HIV test–treat–retain cascade; interpretation and summary of findings related to the losses/gaps in the treatment cascade

9. presentation and discussion of the main findings with the steering committee

The following implementation process is proposed: (3)

10. national stakeholders meeting:
    - presentation, discussion and validation of the assessment findings;
    - development of recommendations for action to be taken to accelerate HIV testing and treatment scale-up
11. development of report (see Annex 2) summarizing:
    - assessment process and implementation
    - main findings and discussion
    - conclusions and recommendations
12. steering committee meeting to agree on planning process for implementation of recommendations

What is cumulative cross-sectional cascade?

The cumulative cross-sectional cascade (CSC) is a view of program progress to date, and identifies the major areas of leakage across the cascade with a larger picture.

CSC can be shown separately for each key population, and/or divide them by age and gender when data are available.

Data includes information on all persons living with HIV at a specific point in time

Data requirements for construction of the cumulative cross-sectional cascade of HIV services for people living with HIV

Indicator 1: HIV cascade indicators

1.1 Percentage of people living with HIV who are diagnosed

1.2 Ratio of patients newly enrolled in care to people who are diagnosed positive

1.3 Percentage of adults and children living with HIV who are enrolled in HIV care

1.4 Percentage of adults and children living with HIV who are retained in pre-ART care

1.5 Percentage of adults and children who are currently receiving antiretroviral therapy

1.6 Percentage of adults and children living with HIV known to be on treatment 12 months after initiation of antiretroviral therapy

1.7 Percentage of people who are on antiretroviral therapy who have reached viral suppression

Indicator 2: TB/HIV cascade indicators

2.1 Percentage of tuberculosis patients with known HIV status

Indicator 3: TPMTCT cascade indicators

3.1 Percentage of pregnant women with known HIV status

3.2 Percentage of HIV-positive pregnant women who receive antiretroviral drugs to reduce the risk of mother-to-child transmission

3.3 Percentage of infants born to HIV positive women who were provided with antiretroviral prophylaxis to reduce the risk of horizontal transmission

3.4 Percentage of tested HIV-exposed infants who are HIV-positive

Drawing the cascade: information required

Information required	Value (add values in this column)	Operational definition	Data sources
Estimated number of PLHIV		Most recent country/ UNAIDS estimate	Country and UNAIDS published estimates
Number/percentage of PLHIV who know their HIV status		Definition to be agreed upon at the start of the cascade analys	HIV case registry, death registry
Number/percentage of PLHIV who have ever been enrolled in care		Definition to be agreed upon at the start of the cascade analys	Health facility records and reports
Number of PLHIV currently in care (pre-ART and ART)		Definition to be agreed upon at the start of the cascade analys	ART site records/ registers
Number of PLHIV on ART		Definition used in GARPR	GARPR, ART site records/ registers
Number of PLHIV with suppressed VL (early warning indicator)		Definition used in WHO global strategy for the surveillance and monitoring of HIV drug resistance 2012	Patient records/registers

Program Indicator

- ✓ Percentage of people within key populations who have conducted an HIV test and know their results
- ✓ Percentage of individuals aged >15 years newly enrolled in care whose sexual partner was tested for HIV
- ✓ Percentage of HIV-positive pregnant women attending antenatal care services whose male partner was tested for HIV to reduce the risk of early or late horizontal transmission
- ✓ Percentage of infants born from HIV-positive women receiving a virological test for HIV within 2 months of birth
- ✓ CD4 cell count at time of enrollment in HIV care
- ✓ Percentage of adults and children starting antiretroviral therapy within 30 days of eligibility determination
- ✓ Percentage of patients who pick up antiviral drugs no later than two days late at the first pick-up after the baseline pick-up
- ✓ Percentage of months in the reporting period in which there were no antiretroviral drug stock-outs

Recommendations

- Base cascades on real data: build systems for data collection
- Coordinate with databases outside of public health: Medicare/Medicaid, Vital Statistics, pharmacy databases
- Get standard definition of each indicator
- Get resources and guidance to assist local jurisdictions in creating their own care cascades
  - Use cascade to monitor specific targeted populations over time: race/ethnicity, age, risk, gender
  - Use local outcomes to build cascades of geographic areas: states, local jurisdictions, clinics, zip codes, census tracts
  - Use cascade to educate and advocate

FUTURE RESEARCH RECOMMENDATIONS: ENTRY INTO/RETENTION IN CARE

- Operational research to optimize / standardize measurement
- Comparative evaluation of monitoring strategies in conjunction with intervention studies
- Comparison of retention measures
- Comparative evaluation of case management in community settings
- Comparative evaluation and cost effectiveness for best practices for implementation of case management interventions
- Comparative evaluation of other intervention approaches: peer support, patient navigation, health literacy, life skills
- Prospective evaluation of pay for performance interventions

Recourses

http://www.cdc.gov/
http://www.amfar.org/
http://www.catie.ca/
www.korbelreport.wordpress.com/2013/09/03/understanding-
hivaids-the-treatment-cascade/
http://www.capitalcityaidsnetwork.org/
http://www.searo.who.int/

Thank you and