Ministry of Health and Social Services

NAMIBIAN HIV CLINICIANS SOCIETY

HIV Resiliency, Connection and Diversity.

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Outlines:

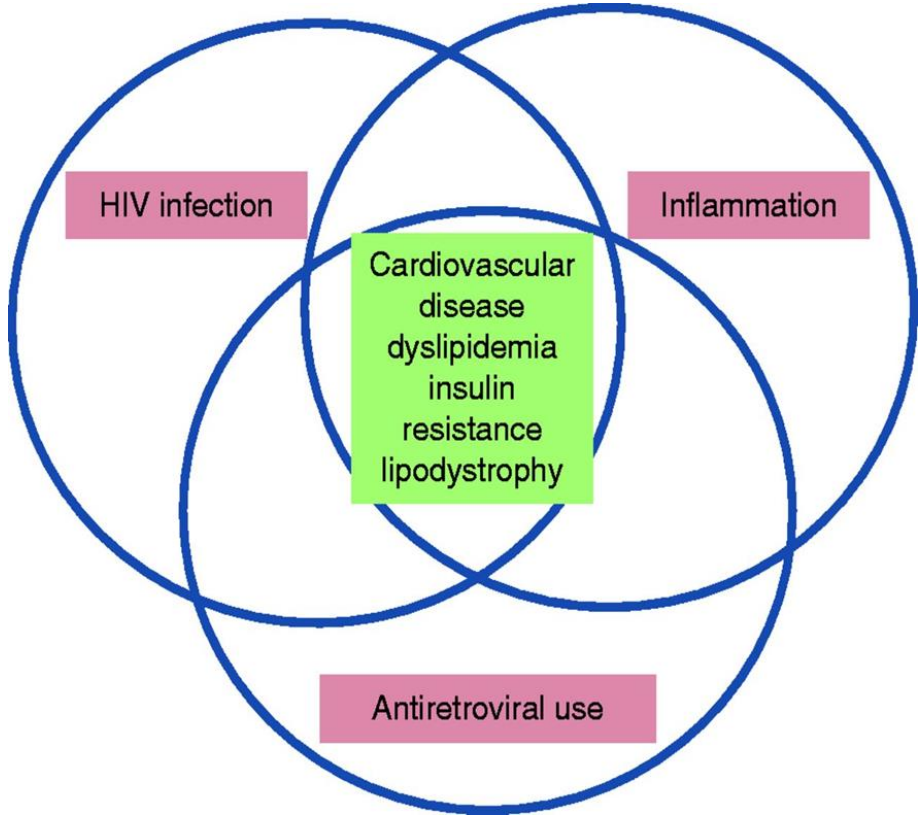
- Introduction
- HIV Connection and Diversity
- HIV Resilience
- 5keys of Resilience
- 7 C’s
- Strategies to Develop Resilience

Introduction

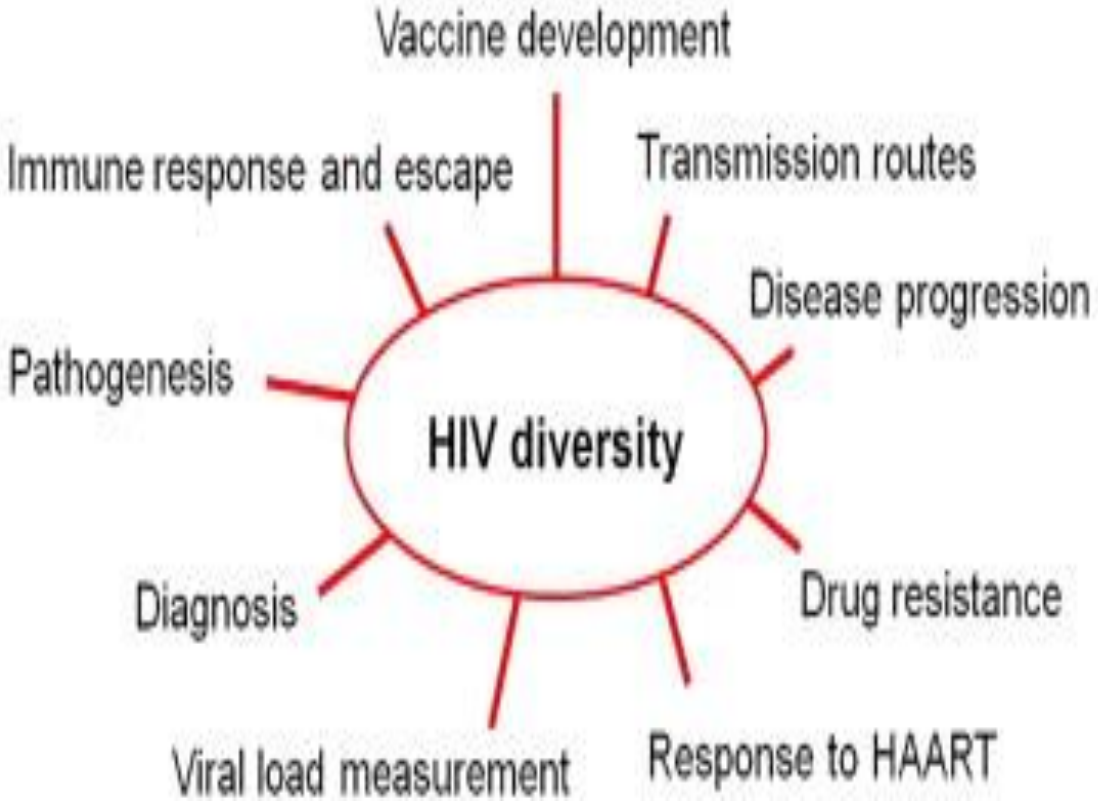
- The HIV infection has become a chronic disease, and people living with HIV (PLHIV) are now surviving, ageing, and requiring lifelong care and treatment.
- ART remains the "gold standard" for lifelong treatment of HIV infection
- Lifelong treatment poses multiple challenges for the patient such as stigma, pill burden, side effects,…
- PLHIV may experience pill fatigue with daily regimens
- Good adherence to antiretroviral therapy (ART) is a cornerstone to treatment success and a principal determinant of virologic suppression.

HIV Connection and Diversity

Connection



Diversity



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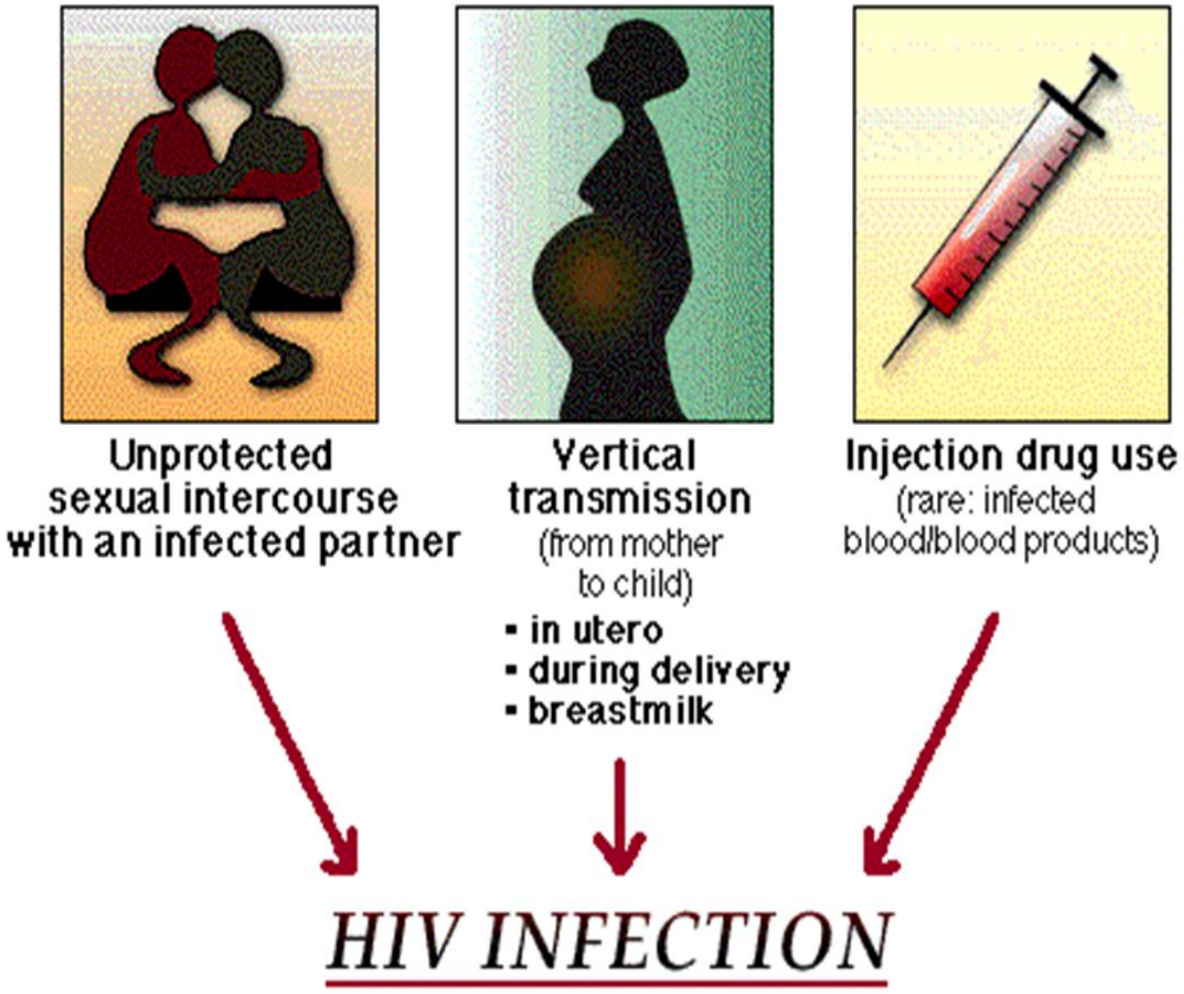
HIV transmission and Diagnosis



- Adult diagnosis : Antibodies test using the serial algorithm, HIV Elisa.
- Infant Diagnosis: NAT Test for under 18 months and HIV RT for above 18 months.

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Factors contributing to the spread of HIV

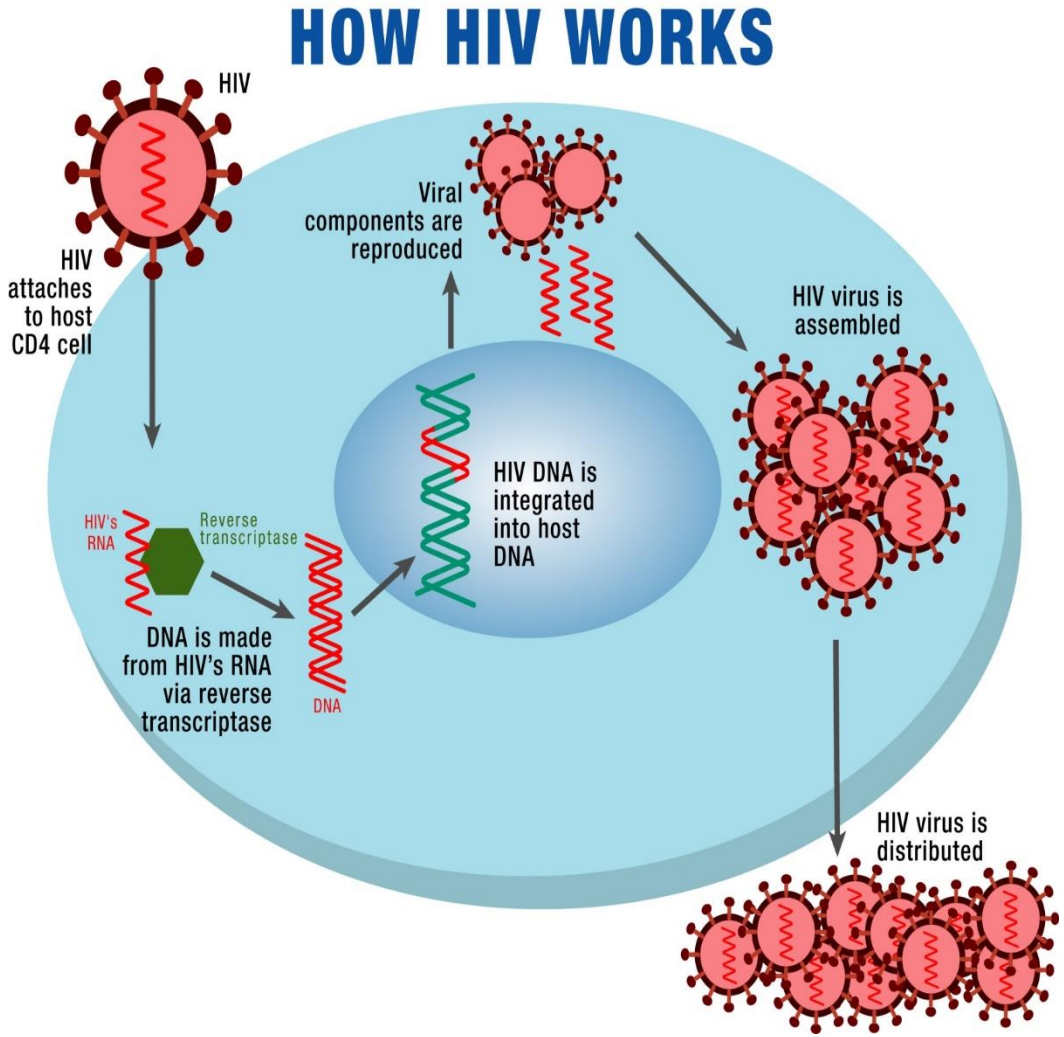
- Social behavior and cultural practices
  - Unwillingness to use condoms
  - Inability to negotiate condom use
  - Multiple concurrent partnerships
  - Work-related migration
  - Low rate of male circumcision.

- Economic factors
  - Poverty
    - Lack of access to information, prevention and care
  - Economic vulnerability of women
  - “Sugar-daddy” phenomenon
- Virological factor
  - HIV 1 (Sub-type C) is the most prevalent and virulent

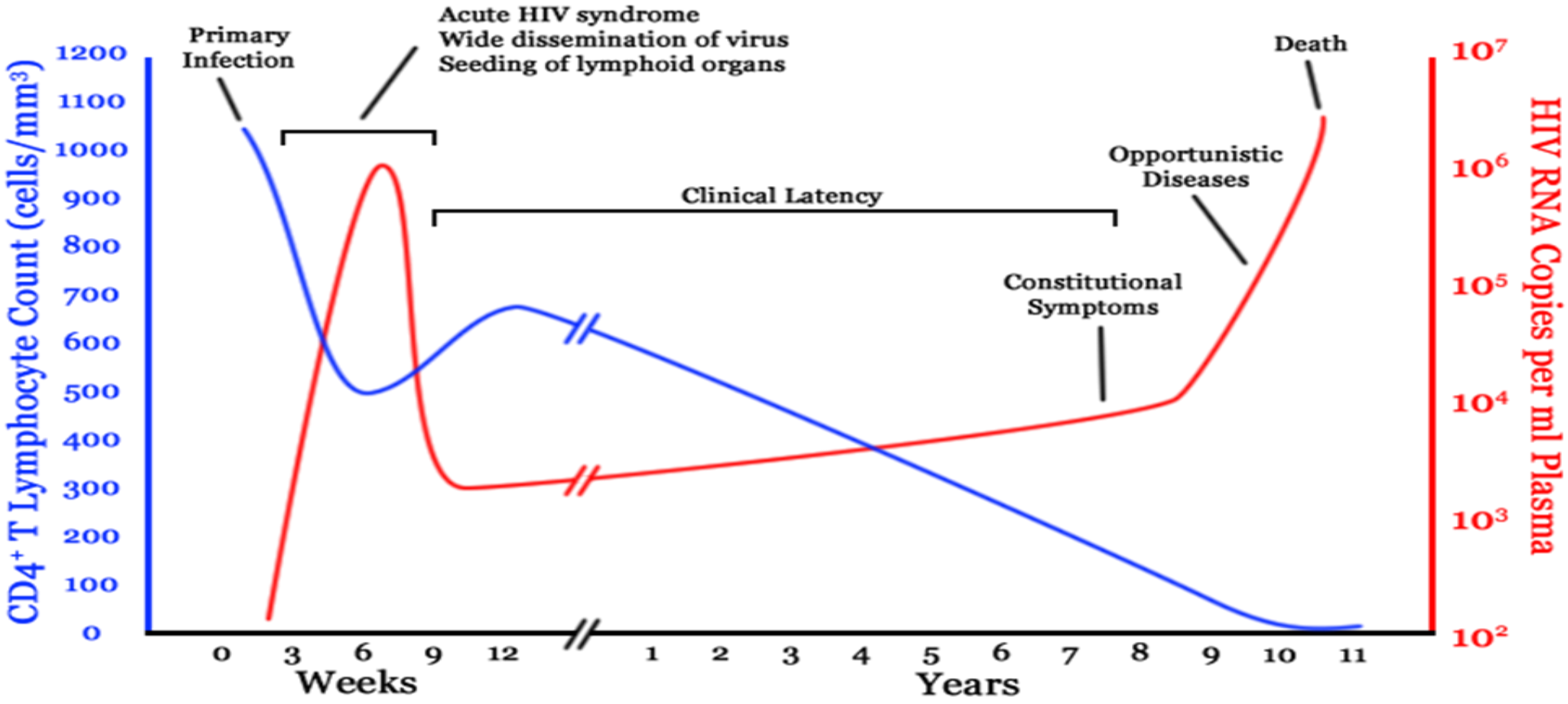
- Others
  - Delayed national and international response
  - Lack of timely change of societal norms
  - High prevalence of ulcerative STIs including HSV
  - Alcohol
  - Substance abuse
  - Dry sex
  - Commercial Sex work
  - Inter-generational sex
  - Wet nursing from an HIV infected woman

Pathogenesis and HIV replication

- There are two types of HIV:
  - HIV-1
  - HIV-2
- Both types are transmitted the same way, and both are associated with progression to AIDS
- HIV 2 is rare worldwide, but occurs in West Africa, Angola, and Mozambique in about 3% of the HIV infected population
- HIV-1 is more common worldwide than HIV-2



Natural History-Immune response



CD4 Lymphocyte Counts

- **The CD4 count** is the number of CD4 cells in the blood which reflects the state of the immune system:
  - The normal count in a healthy adult is between 600 and 1200 cells/mm3
  - When the CD4 count of an adult falls below 200 cells/mm3, the risk of opportunistic and serious infection is high
  - When HIV actively multiplies, it infects and kills CD4 T-cells

- Uninfected Adults:
  - CD4 counts above 500 cells/mm3 are usually considered normal
- HIV Infected Adults:
  - CD4 gradually declines to very low levels
    - the body replaces CD4 cells but is eventually overwhelmed
    - < 200 cells/mm3 indicates severe immune system damage

CD4 count and viral load are two measures of the progression of HIV disease

Viral load is the amount of HIV virus in the blood:

The viral load is used as a marker of response to antiretroviral (ARV) treatment

Disease progression

1. Seroconversion illness

- Some people experience a short illness soon after they contract HIV. This is known as seroconversion illness or **primary** or **acute HIV infection**.
- In some people, seroconversion illness is so mild that it passes without being noticed. Some people mistake it for the flu, but for others it's more severe and they may need to see a doctor.
- Seroconversion is the period when someone with HIV is at their most infectious.

2. The asymptomatic stage of HIV

- Once seroconversion is over, most people feel fine and don't experience any symptoms. This is often called the asymptomatic stage and it can last for several years.
- Though you might feel well at this stage, the virus is active, infecting new cells, making copies of itself and damaging your immune system's ability to fight illness.

Disease progression

3. Symptomatic HIV

- The longer you live with HIV without treatment, the greater your risk of developing infections that your weakened immune system can't fight: certain **cancers**, as well as the direct effects of HIV.
- Getting ill in one of these ways means that you now have **symptomatic HIV**.

4. Late-stage HIV

- If HIV has a chance to cause a lot of damage to your immune system, you may become ill from certain serious opportunistic infections and cancers. These illnesses are also known as **AIDS-defining**.

Response to ART

HIV treatment involves the use of combined antiretroviral therapy (ART) to effectively:

- suppress the viral load
- preserve (or improve) immune function
- reduce the risk of opportunistic infections
- prevent HIV transmission
- improve the quality of life

Viral Load

- Quantity of viral particles per ml of blood:
  - Measures how much virus is reproducing
- Quantifies HIV-1 and not HIV-2
- Range is highly variable:
  - < 40 copies (usually on treatment) to > 1,000,000 copies/ml (in acute phase or no treatment or failing treatment)
- The higher the viral load, the faster the CD4 count decreases
- The lower the viral load, the slower the CD4 count decreases

Viral Load Monitoring

- Treatment monitoring VL :
  - Adults : 6M,12M and thereafter annually if fully suppressed
  - Children: Every 6M if fully suppressed
  - PBFW
- Low level viraemia 40-1000 VL Repeat viral load testing after 3 months of good adherence
- Suspected treatment failure VL Repeat VL after 3 months of good adherence to treatment and once OIs are excluded

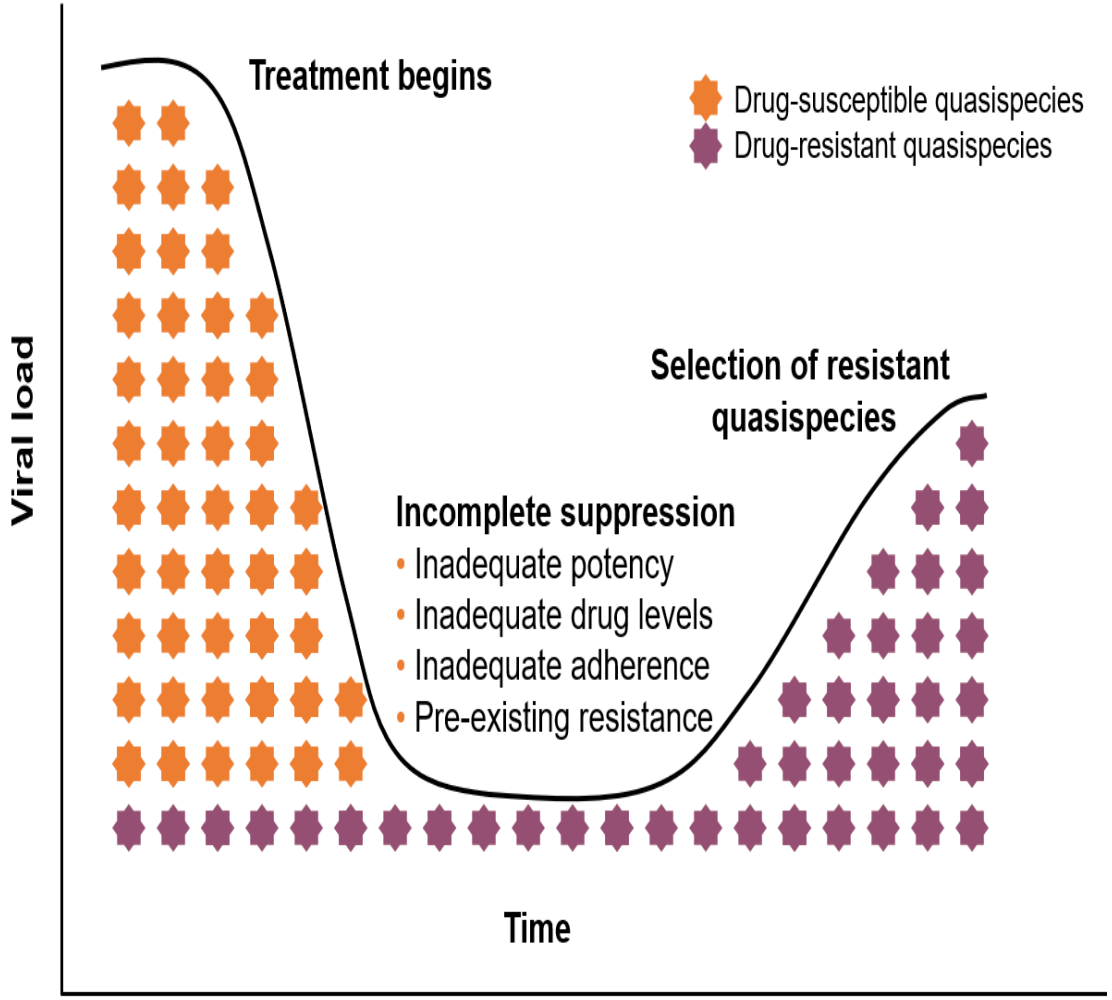
Viral Load Suppression

- In the Namibian context, the following operational definitions are used to interpret viral load
- results.
  - Virological suppression is VL results < 40 copies/ml or target not detected (TND).
  - Low level viremia is VL results between 40-1000 copies/ml.
  - Virological failure is VL results ≥ 1000 copies/ml taken 3 months apart with adherence
  - support following the first viral load test.
  - IAS 2023:

HIV Resistance

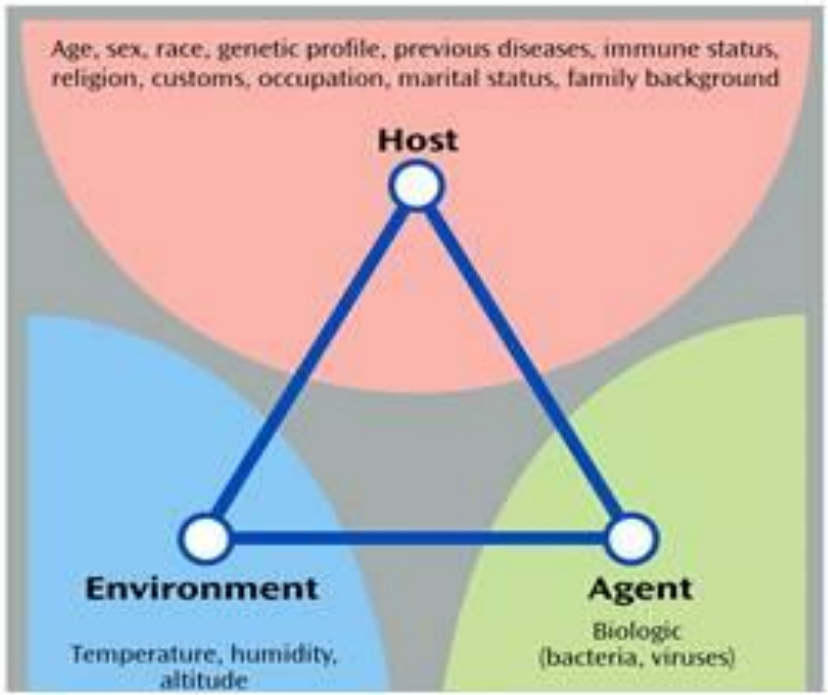
Effects of Resistance:

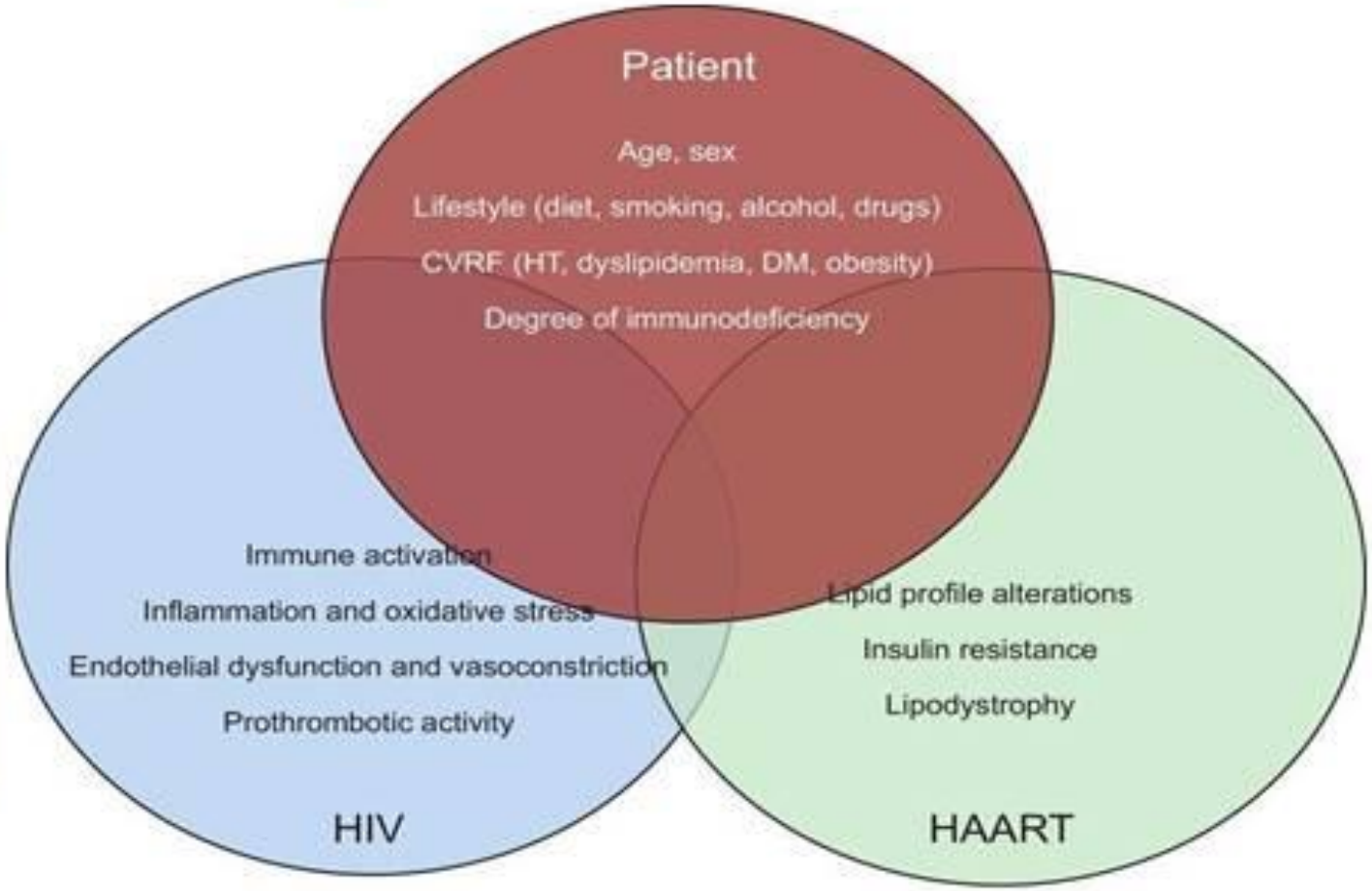
- ARV resistance limits activity of current ART regimens and limits future options
- ARV combinations fail
- HIV viral load increases
- The disease progresses
- Transmission of Drug Resistant Virus



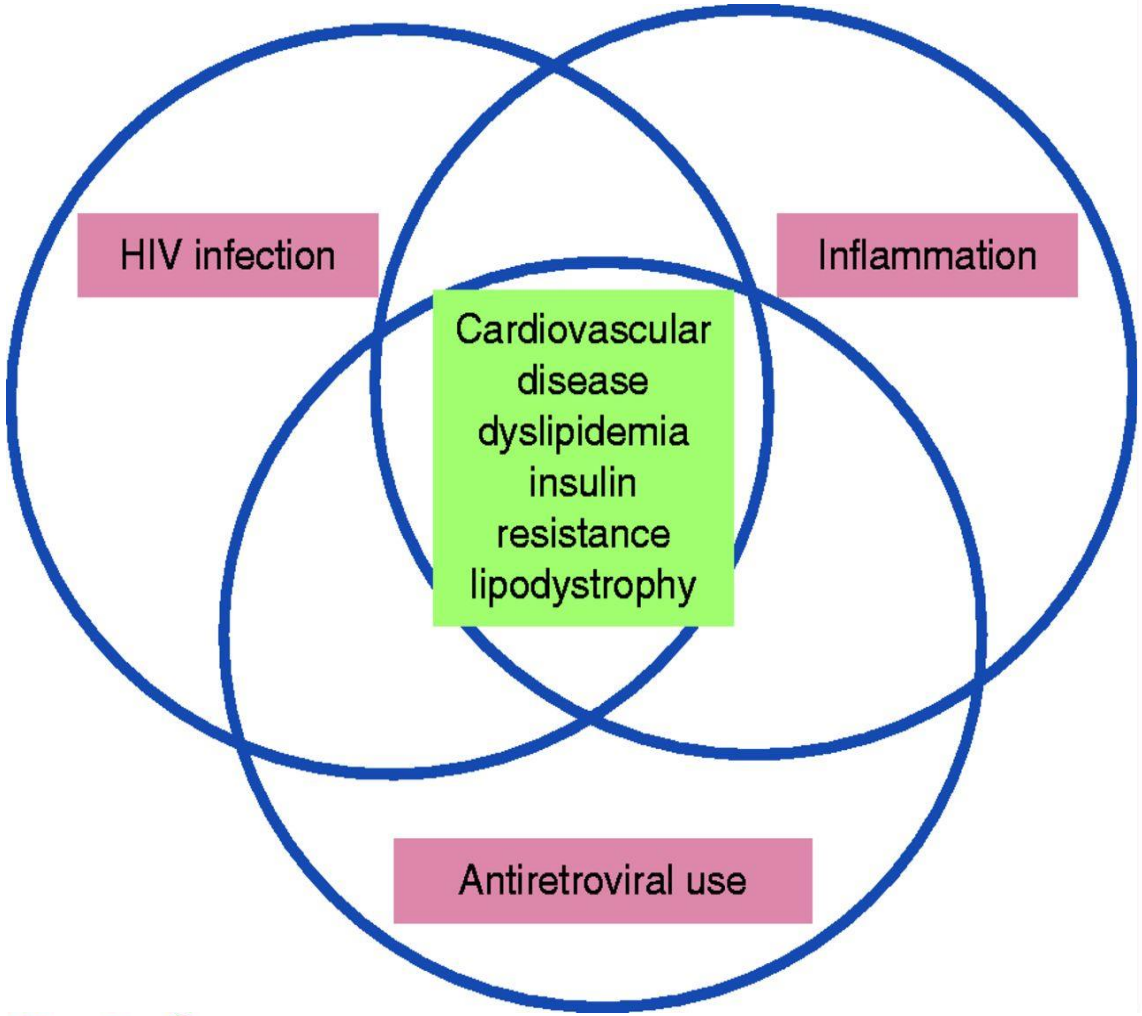
HIV Connection

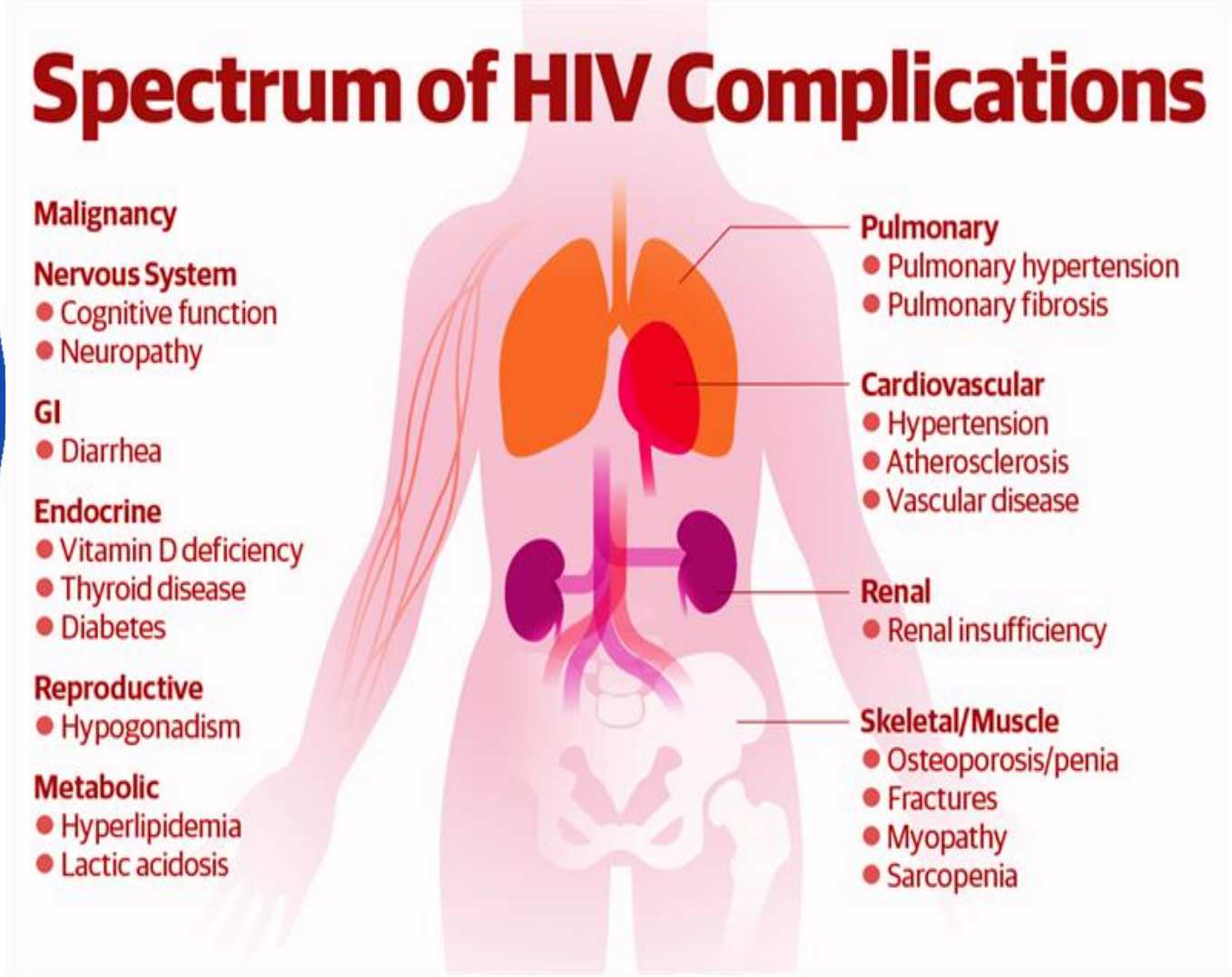
Patient-HIV-ART triangle





HIV connection





HIV Resilience

HIV resilience

- People living with Human Immunodeficiency Virus (HIV) (PLWH) continue to face numerous adversities at:
  - Individual (e.g., trauma),
  - Interpersonal (e.g., stigma),
  - Neighborhood (e.g., socioeconomic deprivation and violence) levels.
- These adversities have been linked to worse health behaviors (e.g. lower HIV medication adherence, poorer clinic attendance) and outcomes (e.g. less viral suppression).
- Given the adversities faced by PLWH, resilience resources may facilitate good health behaviors and outcomes, potentially enabling PLWH to overcome the negative effects of adversities.

HIV resilience Definition

- Resilience resources is defined as positive psychological, behavioral, and/or social adaptation in the face of stressors and adversities that draws upon “an individual’s capacity, combined with families’ and communities’ resources to overcome serious threats to development and health”.
- Resilience resources may protect the health of PLWH via promotion of positive health behaviors (e.g., engagement in care, antiretroviral therapy (ART) adherence) and buffering of adversities (e.g., trauma) on mental health, health behaviors, and physiological functioning.

HIV resilience Definition

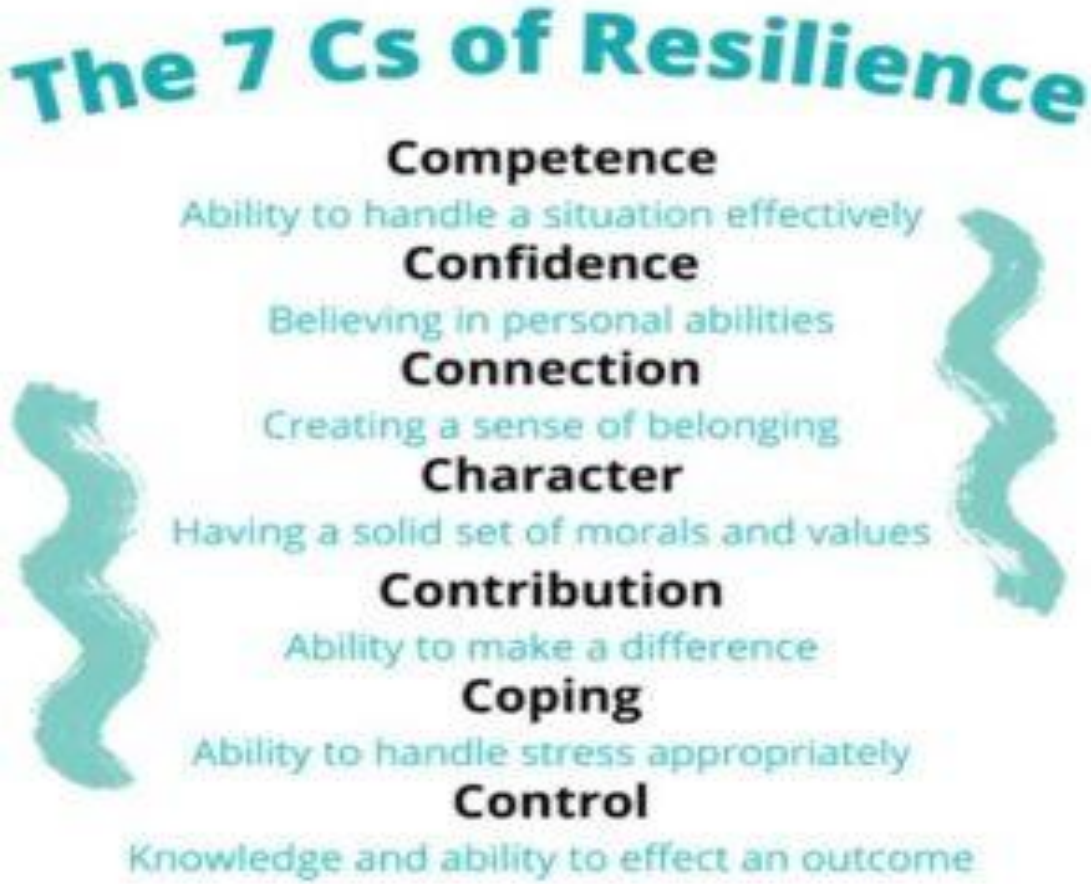
- Resilience resources are also viewed here as processes that buffer against and are potentially more malleable to intervention than some of the aforementioned adversities at the individual, interpersonal, and neighborhood levels.

- The COVID-19 pandemic has adversely affected people with HIV due to:
  - disruptions in prevention and care services,
  - economic impacts, and
  - social isolation.
- Resilience is a known mediator of health disparities and can improve psychological wellness and behavioral health outcomes along the HIV Continuum of Care.

HIV resilience

- Though resilience is often organically developed in individuals as a result of overcoming adversity
- In this *Perspective*, resilience-focused HIV care is defined as **a model of care in which providers promote optimum health for people with HIV by facilitating multi-level resourcing to buffer the effects of adversity and foster well-being.**
- Adoption of resilience-focused HIV care may help providers better promote well-being among people living with HIV during this time of increased psychological stress and help prepare systems of care for future catastrophes

5 keys and 7 C's



Tips to improve resilience

- **Get connected.** Building strong, positive relationships with loved ones and friends can provide you with needed support, guidance and acceptance in good and bad times. Establish other important connections by volunteering or joining a faith or spiritual community.
- **Make every day meaningful.** Do something that gives you a sense of accomplishment and purpose every day. Set clear, achievable goals to help you look toward the future with meaning.
- **Learn from experience.** Think of how you've coped with hardships in the past. Consider the skills and strategies that helped you through difficult times. You might even write about past experiences in a journal to help you identify positive and negative behavior patterns — and guide your future behavior.

Tips to improve resilience (2)

- **Remain hopeful.** You can't change the past, but you can always look toward the future. Accepting and even anticipating change makes it easier to adapt and view new challenges with less anxiety.
- **Take care of yourself.** Tend to your own needs and feelings. Participate in activities and hobbies you enjoy. Include physical activity in your daily routine. Get plenty of sleep and create consistent bedtime rituals. Eat a healthy diet. Practice stress management and relaxation techniques, such as yoga, meditation, guided imagery, deep breathing or prayer.
- **Be proactive.** Don't ignore your problems. Instead, figure out what needs to be done, make a plan and take action. Although it can take time to recover from a major setback, traumatic event or loss, know that your situation can improve if you work at it.

5 strategies for building resilience among HIV-affected children and adolescents

- **Reach children and adolescents where they live and learn**: Reaching vulnerable children at home is critical, as is keeping them in school
- **Reach children and adolescents where they play and socialize**: Effectively engaging with children is key to helping them build knowledge and skills for facing challenges and rejecting risky behavior
- **Support parents and caregivers**: Immediate caregivers profoundly influence a range of outcomes for children, including HIV vulnerability

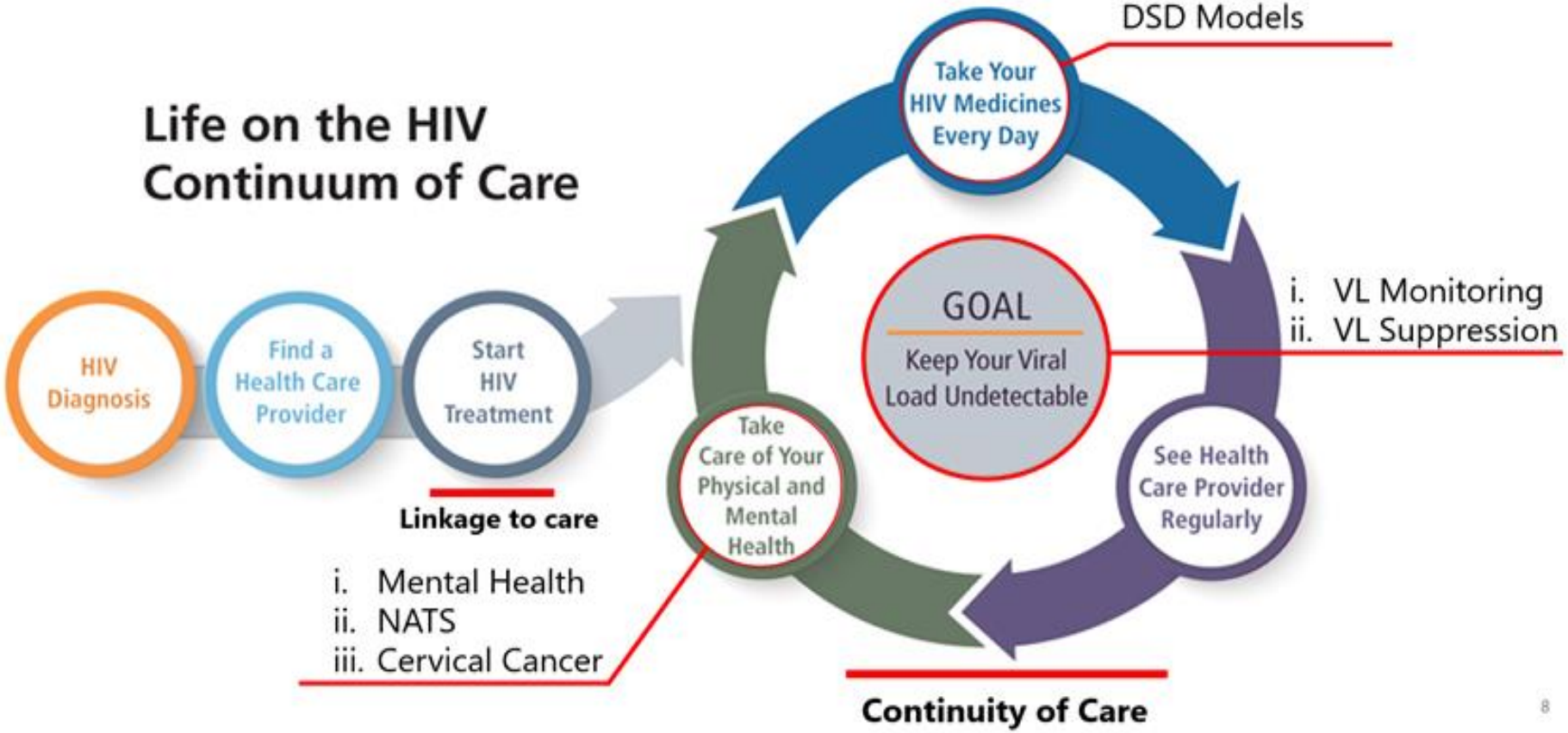
5 strategies for building resilience among HIV-affected children and adolescents

- **Address underlying factors**: Building resilience among HIV-affected children means giving them and their families tools to overcome many potential vulnerabilities
- **Mobilize communities and partners**: As the African proverb says, “it takes a village to raise a child.” Through our work, we have found that partnerships and communities are critical to helping vulnerable children and adolescents stay healthy and thrive

Reflection

Resilience is key to successful ageing with HIV.

Continuum of care



Namibia Progress Towards 97-97-97

- March 2023 PEPFAR awarded Namibia government in recognition of efforts in achieving the 95-95-95 UNAIDS targets as the Country stands at **95-97-94**.
- The Country is moving toward achieving HIV-free generation and based on the NSF Namibia has adjusted the targets from 95-95-95 to 97-97-97 by 2028.
- Adherence to ART plays a major role
- ***HCWs play a major role in supporting the adherence***

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Key Points

- There are two types of HIV and Namibia is affected by HIV-1. The transmission can be horizontal, vertical or through blood products
- CD4 cells reflect the immunologic status and VL the response to treatment
- Undetectable VL is the aim of ART
- PLHIV are at risk of psycho-social stressors
- Resilience is “the process of adapting well in the face of adversity
- Health care workers can promote optimum health through resilience focused-HIV care using the 5 keys and 7 Cs

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