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# **MODULE 4**

## Treatment Literacy

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### What Is in This Module?

This module is aimed at improving treatment literacy among participants, empowering them to practice and impart to others the steps for achieving the maximal benefits of antiretroviral therapy (ART). The module is designed for adults living with HIV. The module begins with exercises that allow participants to reflect upon, document, and share their experiences in their own treatment journeys, and discuss some treatment literacy successes, issues, and concerns before exploring their understanding of key definitions and concepts. This exploration is followed by brief, simple presentations and exercises on the natural history of HIV and ART, along with a few activities designed to demonstrate the application of the knowledge gained and explore their role in achieving the maximal benefits of ART and viral load suppression. The module ends with a review of key messages and personal reflections.

<b>OBJECTIVES</b>	<p>By the end of this module, participants should be able to:</p> <ul style="list-style-type: none"> <li>▪ Explain the basics of and clinical monitoring to enhance their engagement in their own care, advocate for their own health, and confidently support others.</li> </ul>
<b>TIME</b>	6 hours – 6 hours, 5 minutes
<b>ACTIVITY OVERVIEW</b>	<p><b>4.1</b> My Personal Path to Treatment (30 minutes)</p> <p><b>4.2</b> Treatment Literacy – Issues and Concerns (40 – 45 minutes)</p> <p><b>4.3</b> Key Concepts (30 minutes)</p> <p><b>4.4</b> Disease Progression (40 minutes)</p> <p><b>4.5</b> HIV Life Cycle – How Do ARVs Work? (30 minutes)</p> <p><b>4.6</b> Smart About ART (45 minutes)</p> <p><b>4.7</b> Jeopardy on ART (30 minutes)</p> <p><b>4.8</b> Ecological Model (30 minutes)</p> <p><b>4.9</b> Minding the Gaps – Continuum of HIV Care, Treatment, and Prevention (40 minutes)</p> <p><b>4.10</b> Carousel – Essential Action Stations (30 minutes)</p> <p><b>4.11</b> Wrap-up – Key Messages, Reflections (15 minutes)</p>
<b>MATERIALS</b>	<p><b>For PowerPoint Presentation</b></p> <ul style="list-style-type: none"> <li>▪ Laptop, projector, screen</li> <li>▪ PowerPoint: Treatment Literacy</li> <li>▪ PowerPoint: Smart about ART</li> <li>▪ PowerPoint: Jeopardy</li> <li>▪ PowerPoint: HIV Life Cycle</li> <li>▪ PowerPoint: Journey Chart</li> </ul> <p><b>Handouts</b></p> <ul style="list-style-type: none"> <li>▪ Key Concepts/Definitions</li> <li>▪ Key Take-away Messages</li> <li>▪ Case Scenarios for Ecological Model</li> </ul> <p><b>Other</b></p> <ul style="list-style-type: none"> <li>▪ Flipchart paper</li> <li>▪ Flipchart easel</li> <li>▪ Markers</li> <li>▪ Masking tape</li> <li>▪ Coloured sticky/Post-it notes</li> <li>▪ Masking tape</li> <li>▪ Bell or timer</li> </ul>

### Activity 4.1 My Personal Path to Treatment

<b>OBJECTIVES</b>	<p>By the end of this activity, participants should be able to:</p> <ul style="list-style-type: none"> <li>▪ Illustrate, using a flow chart, their personal treatment history from diagnosis to present</li> <li>▪ Reflect on critical steps in their treatment journey</li> </ul>
<b>TIME</b>	30 minutes
<b>MATERIALS</b>	<p><b>For PowerPoint Presentation</b></p> <ul style="list-style-type: none"> <li>▪ Laptop, projector, screen</li> <li>▪ PowerPoint: Journey Chart</li> </ul> <p><b>Other</b></p> <ul style="list-style-type: none"> <li>▪ Flipchart paper</li> <li>▪ Markers</li> <li>▪ Coloured sticky/Post-it notes</li> </ul>
<b>STEPS</b>	<ol style="list-style-type: none"> <li>1. Have flipchart paper, markers, and sticky notes for each participant</li> <li>2. Make a presentation using the “Journey Chart” PowerPoint presentation. This presentation leads participants on who to create a journey chart of their HIV history using the example of starting a weight loss program. Alternatively, or draw a flow chart on a flipchart to explain the activity to participants.</li> <li>3. Instruct participants to draw a diagram (in the form of a flow chart) that outlines their personal history from diagnosis to treatment to the present</li> <li>4. Display each of the diagrams on the wall for the duration of the workshop</li> <li>5. As the workshop progresses, encourage participants to use sticky/Post-it notes to add to their diagrams             <ol style="list-style-type: none"> <li>a. Pink – Issues or problems that need to be addressed</li> <li>b. Green – Things that went well and might be “good practice”</li> <li>c. Yellow – Opportunities for peer support</li> <li>d. Blue – Other issues or things you would like to note</li> </ol> </li> </ol>

### Activity 4.2 Treatment Literacy—Issues and Concerns

<b>OBJECTIVES</b>	<p>By the end of this activity, participants should be able to:</p> <ul style="list-style-type: none"> <li>▪ Identify common issues or concerns in ART and clinical care</li> <li>▪ Define treatment literacy</li> <li>▪ Identify gaps in treatment literacy</li> </ul>
<b>TIME</b>	40 – 45 minutes
<b>MATERIALS</b>	<ul style="list-style-type: none"> <li>▪ Flipchart paper</li> <li>▪ Markers</li> <li>▪ Coloured sticky/Post-it</li> </ul>

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<b>STEPS</b>	<ol style="list-style-type: none"><li>1. Divide the large group into smaller groups of four to five people</li><li>2. Instruct participants to identify three to five challenges, issues, and/or concerns about treatment and its process based on personal paths, for example: "I do not understand the doctor's explanations" or "I'm afraid to tell the doctor that I am not taking medication"</li><li>3. Let one participant from each group write these concerns on a flipchart and post it on the wall</li><li>4. Walk about, debrief, and provide a synthesis of specific issues relating to treatment so as to more fully discuss the definition of treatment literacy</li><li>5. Note which issues will be covered in the workshop and which will not (issues not covered now are "parked" in the parking lot)</li><li>6. Remind participants to review and add sticky notes to their treatment paths on the wall</li></ol>
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### Activity 4.3 Key Concepts

<b>OBJECTIVES</b>	By the end of this activity, participants should be able to: <ul style="list-style-type: none"><li>▪ Define key terms related to the HIV life cycle</li></ul>
<b>TIME</b>	30 minutes
<b>MATERIALS</b>	<b>Handout</b> <ul style="list-style-type: none"><li>▪ Key Concepts/Definitions</li></ul> <b>Other</b> <ul style="list-style-type: none"><li>▪ Flipchart paper</li><li>▪ Markers</li></ul>
<b>STEPS</b>	<ol style="list-style-type: none"><li>1. Divide participants into small groups (the same or different groups of four or five)</li><li>2. Using the Key Concepts/Definitions handout, write or print out four to five of the concepts on a piece of paper for each small groups</li><li>3. Instruct them to take 10 minutes to write spontaneous, simple definitions of the concepts in their own words</li><li>4. Call out each concept and allow each group to present its definition</li><li>5. Compare the concepts to the definitions they provide</li><li>6. Distribute the Key Concepts/Definitions handout</li><li>7. Have a brief discussion to clarify definitions and field questions</li></ol>

### Activity 4.4 Disease Progression

<b>OBJECTIVES</b>	By the end of this activity, participants should be able to: <ul style="list-style-type: none"><li>▪ Review the stages of HIV infection</li><li>▪ Identify the parts of the body that common opportunistic infections (OIs) affect</li><li>▪ Identify the usefulness of the monitoring blood tests—CD4 count and viral load</li></ul>
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	<ul style="list-style-type: none"> <li>Show how stress impacts health, particularly social determinants such as stigma and discrimination and social exclusion</li> </ul>
<b>TIME</b>	40 minutes
<b>MATERIALS</b>	<p><b>For PowerPoint Presentation</b></p> <ul style="list-style-type: none"> <li>PowerPoint: Treatment Literacy</li> <li>Laptop, projector, screen</li> </ul> <p><b>Other</b></p> <ul style="list-style-type: none"> <li>Flipchart paper with a drawing of body and OI labels</li> <li>Markers</li> </ul>
<b>STEPS</b>	<ol style="list-style-type: none"> <li>Make a presentation using the PowerPoint slides titled Treatment Literacy</li> <li>Answer questions and comments</li> <li>Ask participants to work in the small groups to label the drawing of the body with an OI that affects each part of it as indicated</li> <li>Compare the charts and answer questions or leave them for the parking lot</li> </ol>

### Activity 4.5 HIV Life Cycle – How do ARVs work?

<b>OBJECTIVES</b>	<p>By the end of this activity, participants should be able to:</p> <ul style="list-style-type: none"> <li>Recognise the name and class of locally available antiretrovirals</li> <li>Describe how HIV works in the body</li> <li>List the points at which antiretrovirals work on CD4</li> </ul>
<b>TIME</b>	30 minutes
<b>MATERIALS</b>	<p><b>For PowerPoint Presentation</b></p> <ul style="list-style-type: none"> <li>Laptop, projector, screen</li> <li>PowerPoint: HIV Life Cycle</li> </ul> <p><b>Handout</b></p> <ul style="list-style-type: none"> <li>ARV cards</li> </ul> <p><b>Other</b></p> <ul style="list-style-type: none"> <li>Flipchart paper</li> <li>Markers</li> <li>ARV cards</li> </ul>
<b>STEPS</b>	<ol style="list-style-type: none"> <li>Make a presentation using the PowerPoint, HIV Life Cycle</li> <li>Answer questions and comments</li> <li>Ask participants to work in pairs to draw the points at which the antiretrovirals work in the T cell (optional)</li> <li>Display ARV groups (family names) at different parts of the room</li> <li>Explain to participants that a "first name" or a "last name" is on the card and they must</li> </ol>

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	<p>find their partner to complete the correct name—for example, Tenofovir. Then tell them to stay in that “family” group. (*Option to identify first-line and second-line therapy: find people in other families needed to result in complete combination therapy)</p> <p>6. Distribute the ARV cards face down (or write the ARV name on strips of paper, fold them, and ask participants to pick one)</p> <div style="background-color: #e0e0e0; padding: 5px; margin: 10px 0;"> <p><b>Facilitator Note:</b> Advise participants that, there can be variations in how each ARV drug looks (e.g., shape, colour) depending on manufacturer. For this reason, pictures are not included on the ARV cards.</p> </div> <p>7. Have participants say the name when everyone has found the correct group</p> <p>8. Answer questions and comments</p>
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### Activity 4.6 Smart about ART

<b>OBJECTIVES</b>	<p>By the end of this activity, participants should be able to:</p> <ul style="list-style-type: none"> <li>▪ Define ART</li> <li>▪ State when to start ART</li> <li>▪ List common side effects</li> <li>▪ Define a drug or food interaction</li> <li>▪ Define IRIS</li> <li>▪ Review the importance of adherence</li> <li>▪ Define ARV drug resistance; Explain what it means when the viral load is said to be “undetectable”</li> <li>▪ Identify the importance of multidisciplinary care</li> <li>▪ Describe the treatment cascade</li> </ul>
<b>TIME</b>	45 minutes
<b>MATERIALS</b>	<p><b>For PowerPoint Presentation</b></p> <ul style="list-style-type: none"> <li>▪ Laptop, projector, screen</li> <li>▪ PowerPoint: Smart about ART</li> </ul> <p><b>Other (optional)</b></p> <ul style="list-style-type: none"> <li>▪ Flipchart paper</li> <li>▪ Markers</li> </ul>
<b>STEPS</b>	<ol style="list-style-type: none"> <li>1. Make a presentation using the PowerPoint slides, Smart about ART</li> <li>2. Answer questions and comments (flip-charting if desired)</li> <li>3. Allow participants to reflect on and review personal treatment paths</li> </ol>

### Activity 4.7 Key Concepts 2 – Jeopardy on ART

<b>OBJECTIVES</b>	By the end of this activity, participants should be able to define key terms used in ART.
<b>TIME</b>	30 minutes
<b>MATERIALS</b>	<p><b>For PowerPoint Presentation</b></p> <ul style="list-style-type: none"> <li>▪ Laptop, projector, screen</li> <li>▪ PowerPoint: Jeopardy (or make Jeopardy cards using the PowerPoint file)</li> </ul> <p><b>Other</b></p> <ul style="list-style-type: none"> <li>▪ Flipchart paper</li> <li>▪ Markers</li> </ul>
<b>STEPS</b>	<ol style="list-style-type: none"> <li>1. Divide participants into two teams for a game of Jeopardy</li> <li>2. Give instructions for how to play Jeopardy:             <ol style="list-style-type: none"> <li>a. The teams you are divided into will compete.</li> <li>b. When it's your team's turn, you will pick a category and value, for example, "ART for 100." (Facilitator: display slide 2 of the Jeopardy PowerPoint or a pre-prepared flipchart with the table from slide 2 copied).</li> <li>c. Then I'll read the corresponding statement. This is an answer to a question. For example, "refers to the combination of the ARV drugs used in the management of HIV."</li> <li>d. Once I've read the answer aloud, either team can hit their "buzzer" to provide the correct response. This will come in the form of a question, for example, "What is ART?"</li> </ol> </li> <li>3. Have one of your co-facilitators be the judge/keeper of scores</li> </ol>

### Activity 4.8 Ecological Model

<b>OBJECTIVES</b>	By the end of this activity, participants should be able to: <ul style="list-style-type: none"> <li>▪ Identify the role of multidisciplinary care</li> <li>▪ Identify the role of peer support</li> </ul>
<b>TIME</b>	30 minutes
<b>MATERIALS</b>	<p><b>Handout</b></p> <ul style="list-style-type: none"> <li>▪ Case Scenarios for Ecological Model</li> </ul> <p><b>Other</b></p> <ul style="list-style-type: none"> <li>▪ Flipchart paper for labels</li> <li>▪ Markers</li> <li>▪ Masking tape</li> </ul>
<b>STEPS</b>	<ol style="list-style-type: none"> <li>1. Ask participants to describe an ecological model (refer to Module 17: Advocacy, Activity 17.4)</li> <li>2. Choose a participant who will apply the ecological model</li> </ol>

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3. Read the case scenarios
4. Designate which participants are key people, based on the scenario in their immediate circle (friends, lovers, and family [FLAF]); in their community (Health and Social Services and Resources [HASSAR]); and in society (Policy Implementation, Networking Opportunities, and Monitoring [PINOM])
5. Set up the circles of the ecological model on the floor (use masking tape to delineate circles—person, entourage, community, society). Let each participant label the other participants with the role drawn from the categories of key people, using a light-coloured sticky paper or masking tape with their identity written on it (“mother,” for example) as they navigate the issue in the scenario
6. Use flipcharts to record the different levels
7. Debrief, pulling out key themes
8. If time allows, use a second scenario that describes a different kind of situation (i.e., the first scenario might have more to do with a personal issue in the health facility environment, whereas the second might be more about the home environment or address an issue that recurs in a health facility and needs more of a “political” intervention)

### Activity 4.9 Minding the Gaps – Continuum of HIV Care, Treatment, and Prevention

<b>OBJECTIVES</b>	<p>By the end of this activity, participants should be able to:</p> <ul style="list-style-type: none"> <li>▪ Tabulate the conditions required to achieve the goals for each step in the continuum of HIV care, treatment, and prevention</li> <li>▪ Propose roles people living with HIV can play in achieving these goals</li> </ul>																								
<b>TIME</b>	40 minutes																								
<b>MATERIALS</b>	<p><b>Prepared Flipchart</b></p> <ul style="list-style-type: none"> <li>▪ Flipchart paper with the following table</li> </ul> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="background-color: #4b2c62; color: white;">Step in Continuum</th> <th style="background-color: #d9c9d9;">Key Services</th> <th style="background-color: #d9c9d9;">Conditions Needed</th> <th style="background-color: #d9c9d9;">Role of PLHIV</th> </tr> </thead> <tbody> <tr> <td style="background-color: #4b2c62; color: white;">Testing</td> <td></td> <td></td> <td></td> </tr> <tr> <td style="background-color: #4b2c62; color: white;">Link to Care</td> <td></td> <td></td> <td></td> </tr> <tr> <td style="background-color: #4b2c62; color: white;">Treatment Initiation</td> <td></td> <td></td> <td></td> </tr> <tr> <td style="background-color: #4b2c62; color: white;">Adherence and Retention</td> <td></td> <td></td> <td></td> </tr> <tr> <td style="background-color: #4b2c62; color: white;">Maintain Viral Load Suppression</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Step in Continuum	Key Services	Conditions Needed	Role of PLHIV	Testing				Link to Care				Treatment Initiation				Adherence and Retention				Maintain Viral Load Suppression			
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	<table border="1" data-bbox="363 248 1382 400"> <tr> <td data-bbox="363 248 643 400"> <b>Survival and Community Viral Load Suppression</b> </td> <td data-bbox="643 248 884 400"></td> <td data-bbox="884 248 1137 400"></td> <td data-bbox="1137 248 1382 400"></td> </tr> </table> <p><b>Other</b></p> <ul style="list-style-type: none"> <li>▪ Flipchart or cards that define each step in the HIV continuum (see Module 5: Continuum of HIV Care, Treatment, and Prevention or Facilitator Notes at the end of this module)</li> <li>▪ Markers</li> </ul>	<b>Survival and Community Viral Load Suppression</b>			
<b>Survival and Community Viral Load Suppression</b>					
<b>STEPS</b>	<ol style="list-style-type: none"> <li>1. Divide the larger group into smaller groups of four or five</li> <li>2. In the small groups, for each step in the continuum, identify             <ol style="list-style-type: none"> <li>a. What services are important in that step?</li> <li>b. Three conditions needed to best achieve uptake for that step</li> <li>c. Roles people living with HIV peers might undertake to help ensure that those conditions are met</li> </ol> </li> </ol>				

### Activity 4.10 Carousel – Essential Action Stations

<b>OBJECTIVES</b>	By the end of this activity, participants should be able to: <ul style="list-style-type: none"> <li>▪ Discuss possible concrete actions to improve care</li> </ul>
<b>TIME</b>	30 minutes
<b>MATERIALS</b>	<ul style="list-style-type: none"> <li>▪ Flipchart paper with stations labelled and key questions (see Step 3 below)</li> <li>▪ Markers</li> <li>▪ Bell or timer</li> </ul>
<b>STEPS</b>	<ol style="list-style-type: none"> <li>1. Explain the dynamics of the carousel: teams revolving around stations</li> <li>2. Divide the larger group into three teams to attend to the three stations</li> <li>3. Instruct each team to begin with one station and answer the key questions (see “Key questions for each station below”).</li> </ol> <p>The three stations will be</p> <ul style="list-style-type: none"> <li>▪ ARV treatment and well-being</li> <li>▪ Peer navigation and learning</li> <li>▪ Policy monitoring and networking</li> </ul> <p>Key questions for each station:</p> <ol style="list-style-type: none"> <li>a. WHAT             <p>What do we need to improve this situation? What questions do we want or need answered? From health providers? From facility policymakers? From our constituents?</p> </li> <li>b. WHO/WHERE             <p>Who might we ask for answers? Where might we go?</p> </li> </ol>

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	<p><b>c. HOW</b></p> <p>Three stepwise suggestions for moving forward</p> <ol style="list-style-type: none"><li>4. Allow 10 minutes to the first group. After that, ring a bell</li><li>5. Instruct the team to move to the next station and review what the previous team has written and make any additions or suggestions</li><li>6. After five minutes, instruct the groups to move to the next station, where they will review, comment and, if necessary, make a clean copy for a presentation</li><li>7. Post the final flipchart papers and discuss—tease out key takeaways</li></ol>
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### Activity 4.11 Wrap-up – Key Messages, Reflections

<b>OBJECTIVES</b>	<p>By the end of this activity, participants should be able to:</p> <ul style="list-style-type: none"><li>▪ Review key messages and concepts learned</li><li>▪ Reflect on their role in achieving the well-being of themselves and other people living with HIV</li><li>▪ Develop a plan of action regarding how they will use this information in their everyday lives</li></ul>
<b>TIME</b>	15 minutes
<b>MATERIALS</b>	<ul style="list-style-type: none"><li>▪ Note paper</li><li>▪ Flipchart</li><li>▪ Markers</li><li>▪ Handout: Key Take-away Messages</li></ul>
<b>STEPS</b>	<ol style="list-style-type: none"><li>1. Have the participants reflect on their paths to treatment based on the knowledge they have gained</li><li>2. Allow them to identify next steps in their treatment paths</li><li>3. Discuss key take-away messages, referring back to personal paths</li><li>4. Summarise points of agreement among participants about these issues: Support early diagnosis? Linkage? Retention in services? Adherence?</li><li>5. Discuss the role of people living with HIV leaders in improving treatment literacy</li></ol>

### Handout: Key Concepts/Definitions

**Acute stage** – Also called “acute HIV infection” or “primary HIV infection.” This is the HIV disease stage at which a person has recently contracted the virus. Approximately half of the people who get infected do not notice anything, whereas the other half experience symptoms within two to four weeks. These symptoms include fever, sore throat, muscle or joint pains, and/or a skin rash. This stage is also considered one of the most infectious times for HIV transmission; that is, the risk of passing HIV to another person during this period is high because the number of HIV particles in the blood is much higher during acute HIV infection than later on.

**Adherence** – Sticking to the plan: taking medicines as prescribed and following up with appointments with a doctor. Adherence is the main ingredient for successful ART and so must be pursued and supported.

**AIDS (Acquired Immunodeficiency Syndrome) OR Advanced HIV Infection** – This is the final HIV disease stage, at which a person’s immune system is very weak and the CD4 count is below 200 cells/mm<sup>3</sup>. (In someone with a healthy immune system, CD4 counts are between 500 and 1,600 cells/mm<sup>3</sup>.) A person is also considered to have progressed to AIDS if she/he develops one or more opportunistic illnesses, regardless of the CD4 count. Without treatment, people who progress to AIDS typically live for three years. However, once they acquire an opportunistic infection, life expectancy without treatment falls to one year. With treatment and a decreased viral load, a person will likely never progress to AIDS. AIDS/Advanced HIV Infection is the last of three stages, including the “acute infection” and “clinical latency” (inactivity or dormancy) stages. Details for CD4 counts and the different stages appear in Table 1 below.

**TABLE 1. HIV INFECTION STAGE, BASED ON AGE-SPECIFIC CD4+ T-LYMPHOCYTE**

Stage*	Age on date of CD4 T-lymphocyte test					
	<1 year		1-5 years		6 years through adult	
	Cells/ $\mu$ L	%	Cells/ $\mu$ L	%	Cells/ $\mu$ L	%
1	$\geq 1,500$	$\geq 34$	$\geq 1,000$	$\geq 30$	$\geq 500$	$\geq 26$
2	750–1,499	26–33	500–999	22–29	200–499	14–25

#### COUNT OR CD4+ T-LYMPHOCYTE PERCENTAGE OF TOTAL LYMPHOCYTES\*

\*The stage is based primarily on the CD4+ T-lymphocyte count; this count takes precedence over the CD4 T-lymphocyte percentage, and that percentage is considered only if the count is missing. If none of the above applies (e.g., because of missing information on CD4 test results), the stage is U (unknown).

**ART** – Antiretroviral therapy/treatment; refers to the combination of ARV drugs that are used in the treatment of HIV. ART cannot cure HIV but, when taken consistently, it allows a person to live a long and healthy life and reduces the risk of HIV transmission. ARV and ART often are used interchangeably to mean HIV treatment.

**ARV** – Antiretroviral, a drug used to control HIV in the body.

**ARV drug interaction** – Occurs when another drug, food, other substance, such as alcohol, affects the levels of the ARV, or the ARV affects the level of the substance in the body when both are taken together.

**ARV drug resistance** – This means that a drug no longer works very well or does not work at all in the body; the HIV found a way to change itself (mutate) to get around the drug, so it continues multiplying at a greater rate.

**CD4** – CD4 cells (or T-cells or CD4 lymphocytes) are a type of white blood cell that play a major role in protecting the body from infection. They send signals to activate the body’s immune response when they detect “intruders,” like

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viruses or bacteria. Adapted from AIDS.gov. “Basic facts.” Available at: <https://www.aids.gov/hiv-aids-basics/just-diag-nosed-with-hiv-aids/understand-your-test-results/cd4-count/>.

The CD4 count measures the number of these cells; usually, the higher the count, the better the immune status of the patient. These cells are also the prime target of HIV, which can cause their numbers to decrease over time. Too few CD4 cells means that the immune system will no longer function as it should.

**Clinical monitoring** – Monitoring progress, which usually entails having a CD4 test and/or viral load test, along with a clinical assessment to check on the progress of a patient. Monitoring may also include screening for other chronic diseases or possible side effects of ART.

**Differentiated care** - Client centered approach that simplifies and adapts sets of services to address the specific requirements of various groups of people living with HIV while reducing unnecessary burdens on the health system.

**Drug regimen** – The drugs/medicines plan for patients, including how and when drugs should be taken.

**First-line therapy** – The usual list of combinations of ARVs recommended for use when initiating ART.

**HIV** – Human Immunodeficiency Virus, a retrovirus that uses cells in the human body to multiply. It needs to change its RNA to DNA so it can use the nucleus (the “brain” of the cell). For this reason, it comes equipped with its own enzyme (reverse transcriptase, a protein that helps it change its RNA to viral DNA). It then uses this viral DNA in the nucleus of the cell to make more viral proteins and create more HIV viruses that go on to infect other cells.

**Immunology** – The study of the immune system in organisms. Human immunology is the study of how the body’s system protects and defends itself against diseases.

**Initiation of antiretroviral therapy (ART)** – The time recommended by the treatment guidelines to start ART once the patient is ready. In line with WHO International Guidance, the Government of Jamaica has moved to a test and treat strategy for HIV. This means that:

- i. ART is now recommended for all HIV-infected individuals, regardless of CD4, T-lymphocyte cell count, to reduce the morbidity and mortality associated with HIV infection.
- ii. ART is also recommended for HIV-infected individuals to prevent HIV transmission.
- iii. When initiating ART, it is important to educate patients regarding the benefits and considerations regarding ART, and to address strategies to optimise adherence.
- iv. On a case-by-case basis, ART may be deferred because of clinical and/or psychosocial factors, but therapy should be initiated as soon as possible.

**IRIS** – Immune reconstitution inflammatory syndrome, also known as immune restoration disease; in this disease, the immune system begins to recover but then reacts to a previously acquired opportunistic infection with an overwhelming inflammatory response that paradoxically makes the symptoms worse. Wikipedia. Available at: [https://en.wikipedia.org/wiki/Immune\\_reconstitution\\_inflammatory\\_syndrome](https://en.wikipedia.org/wiki/Immune_reconstitution_inflammatory_syndrome).

**Latent stage** – After the acute stage of HIV infection, the disease moves into a stage called the “latent” or “clinical latency” stage. This stage is also called “asymptomatic HIV infection” or “chronic HIV infection.” “Latent” means a period during which a virus is living or developing in a person but is not creating any symptoms. During this stage, people who have HIV do not have any HIV-related symptoms, or only mild ones. Also, the HIV virus is reproducing, but at very low levels. People who take ART at this time can stay in this stage for decades. People who do not take ART can stay in this stage for up to 10 years, after which their health rapidly declines. It is important to remember that although people in this stage most often do not have any symptoms, they are still able to transmit HIV to others even if they are on ART, although ART greatly reduces the risk of transmission.

**Multidisciplinary care** – This term refers to the team of health providers involved in the care of people living with HIV. The team usually consists of a nurse, doctor, contact investigator, family nurse practitioner, adherence

## 4 Treatment Literacy

counsellor, social worker, psychologist, mental health officer, nutritionist, pharmacist, laboratory worker, and dental health provider.

**Opportunistic infections (OIs)** – Infections or conditions that occur more frequently in a person whose immune system is weak. Such infections do not usually cause illness when the immune system is working well.

**OI prophylaxis** – Medications—for example, Bactrim or Cotrimoxazole—given to patients before or after beginning ART to help prevent opportunistic infections.

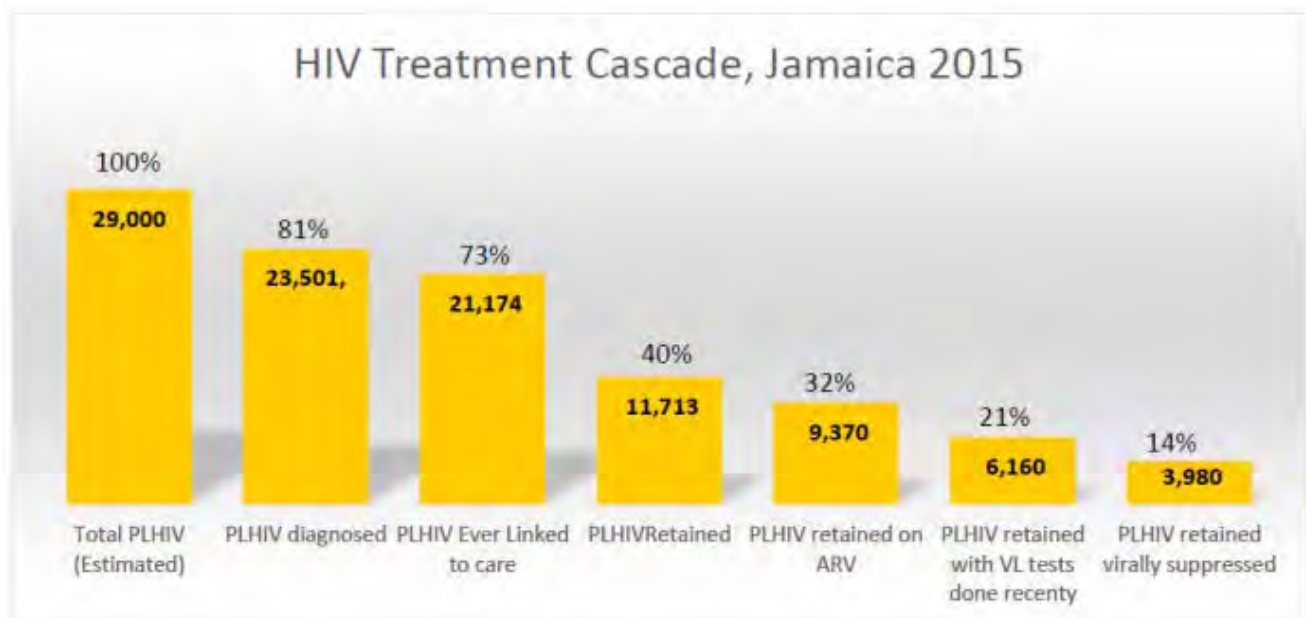
**Post-exposure prophylaxis, PEP** – Offering ARV medication (dual or triple ARV) after sexual exposure (such as rape) to prevent acquiring HIV.

**Pre-exposure prophylaxis (PrEP)** – Offering ARV medication (dual or triple ARV) before sexual intercourse to uninfected partners to prevent acquiring HIV.

**Retrovirus** – A virus that has both RNA and the enzyme reverse transcriptase. Once the virus is inside the cell, it goes through a process called reverse transcription, in which the core of the virus breaks open and releases its RNA and the enzyme reverse transcriptase, which turns its RNA into viral DNA. The viral DNA is then integrated into the cell's normal DNA. Once this happens, the cell is turned into a “factory” to make more and more copies of the virus. “Retro” means reversing from RNA to DNA.

**Second-line therapy** – The usual list of combinations of ARVs recommended for use when the first-line therapy fails.

**Treatment cascade** – Sometimes referred to as the HIV Care Continuum, a treatment cascade is a model that outlines the sequential steps or stages of HIV medical care that people living with HIV go through, from initial diagnosis to achieving the goal of viral suppression (a very low level of HIV in the body), and shows the proportion of people living with HIV engaged at each stage; undiagnosed, diagnosed, linked to care, retained in care, on ART, or with viral suppression while on ART.



Source: Ministry of Health, Jamaica. 2016. *Jamaica's HIV Treatment Cascades 2014-2015*. Kingston, Jamaica: Ministry of Health.

**Treatment failure** – Any combination or all of the following: clinical failure, immunologic failure, or virologic failure. Contributing factors include drug resistance, drug toxicity, or poor treatment adherence.

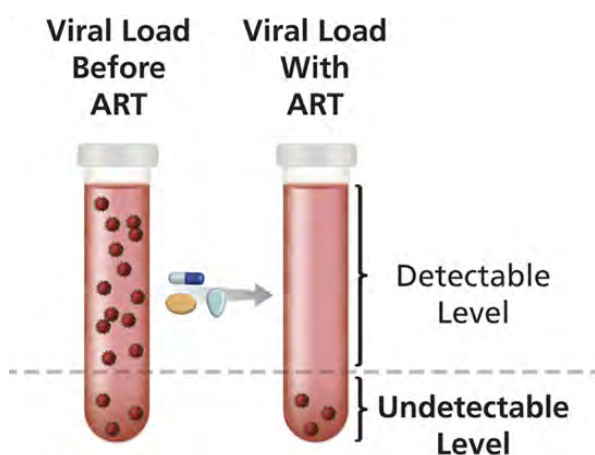
**Treatment as prevention (TasP)** – The decreased risk of HIV transmission to persons accidentally exposed to people living with HIV whose HIV is controlled by ART (viral load undetectable).

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**Undetectable viral load** – In general, a person’s viral load will be declared “undetectable” if it is under 20 to 75 copies in a sample of the blood. The exact number depends on the lab that analyses the test. It is much more difficult to transmit the virus when a person has an undetectable viral load. Adapted from AIDS.gov. “Basic facts.” Available at: <https://www.aids.gov/hiv-aids-basics/just-diagnosed-with-hiv-aids/understand-your-test-results/cd4-count/>.

**Vertical transmission/mother-to-child transmission of HIV** – The transmission (passing on of) HIV from a mother to her child during pregnancy, labour, delivery, or breastfeeding.

**Viral load test** – A lab test that measures the number of HIV particles in a millilitre of blood. These viral particles are called “copies.” A viral load test helps provide information on a person’s health status and how well ART is controlling the virus. The goal of ART is to move the viral load down—ideally to undetectable levels.



Source: AIDSinfo. 2017. “Undetectable Viral Load.” Available at: <https://aidsinfo.nih.gov/education-materials/glossary/876/undetectable-viral-load>.

**Virology** – The study of viruses: how they work, their effects, the diseases they cause, and how medications work. Experts in this field of medicine are called virologists.

### Handout: ARV Cards

**Note:** There can be variations in how each ARV drug looks (e.g., shape, colour) depending on manufacturer. For this reason, pictures are not included on the ARV cards.

## ARV Dosing Information of Children (less than 3 years) in Jamaica

### FIRST LINE

Abacavir + Lamivudine + Lopinavir/Ritonavir **OR** Zidovudine + Lamivudine + Lopinavir/Ritonavir

#### Abacavir + Lamivudine + Lopinavir/Ritonavir

<p><u>Oral Solution:</u> 20mg/mL <u>Tablets:</u> 200mg (scored)</p> <p><u>Paediatric Dose:</u> <i>Oral Solution (Aged ≥3 Months):</i> 8mg/kg/dose twice daily or 16mg/kg once daily 300mg <i>Tablets:</i> Dosing varies based on the weight of child twice daily</p>	<h3>Abacavir</h3> <p>(ABC)</p>
<p><u>Oral Solution:</u> 10mg/mL, 5mg/mL; given up to approx. 15kg <u>Tablets:</u> 150mg (scored), 300mg</p> <p><u>Paediatric Dose (Aged ≥4 Weeks):</u> 4mg/kg/dose (up to 150mg depending on weight) twice daily</p>	<h3>Lamivudine</h3> <p>(3TC)</p>
<p><u>Paediatric Oral Solution:</u> 80 mg/20 mg LPV/r per mL; given up to approximately 15kg <u>Film-Coated Tablets:</u> 100 mg/25 mg LPV/r, 200 mg/50 mg LPV/r</p> <p><u>Paediatric Dose:</u> 230 mg/m<sup>2</sup> /dose twice daily or 10 mg/kg /dose twice daily</p>	<h3>Lopinavir + Ritonavir</h3> <p>(LPV)</p>

OR

### Zidovudine + Lamivudine + Lopinavir/Ritonavir

<p><u>Oral Solution</u>: 10mg/mL; given up to approx. 15kg <u>Tablets</u>: 300mg</p> <p><u>Paediatric Dosing</u>: 180-240 mg/m<sup>2</sup> /dose twice daily OR 12 mg/kg /dose twice daily (wt 4-&lt;9kg); 9mg/kg/dose twice daily (9-30kg); 300mg (&gt;30kg) <u>Zidovudine + Lamivudine + Nevirapine</u> available as fixed dose combination in paediatric dose range of 60mg/30mg/50mg</p>	<p style="text-align: center;"><b>Zidovudine</b> (AZT, ZDV)</p>
<p><u>Oral Solution</u>: 10mg/mL, 5mg/mL; given up to approx. 15kg <u>Tablets</u>: 150mg (scored), 300mg</p> <p><u>Paediatric Dose (Aged ≥4 Weeks)</u>: 4mg/kg/dose (up to 150mg depending on weight) twice daily <u>Zidovudine + Lamivudine + Nevirapine</u> available as fixed dose combination in paediatric dose range of 60mg/30mg/50mg</p>	<p style="text-align: center;"><b>Lamivudine</b> (3TC)</p>
<p><u>Paediatric Oral Solution</u>: 80 mg/20 mg LPV/r per mL; given up to approximately 15kg <u>Film-Coated Tablets</u>: 100 mg/25 mg LPV/r, 200 mg/50 mg LPV/r</p> <p><u>Paediatric Dose</u>: 230 mg/m<sup>2</sup> /dose twice daily or 10 mg/kg /dose twice daily</p>	<p style="text-align: center;"><b>Lopinavir + Ritonavir</b> (LPV)</p>



## 4 Treatment Literacy

### SECOND LINE

Abacavir + Lamivudine + Raltegravir **OR** Zidovudine + Lamivudine + Raltegravir

#### Abacavir + Lamivudine + Raltegravir

<p><u>Oral Solution</u>: 20mg/mL <u>Tablets</u>: 200mg (scored)</p> <p><u>Paediatric Dose</u>: <u>Oral Solution (Aged ≥3 Months)</u>: 8mg/kg/dose twice daily or 16mg/kg once daily 300mg <u>Tablets</u>: Dosing varies based on the weight of child twice daily</p>	<h2>Abacavir</h2> <p>(ABC)</p>
<p><u>Oral Solution</u>: 10mg/mL, 5mg/mL; given up to approx. 15kg <u>Tablets</u>: 150mg (scored), 300mg</p> <p><u>Paediatric Dose (Aged ≥4 Weeks)</u>: 4mg/kg/dose (up to 150mg depending on weight) twice daily</p>	<h2>Lamivudine</h2> <p>(3TC)</p>
<p><u>Formulations</u>: Film-coated tablets, chewable tablets, oral suspension <u>Infant/Pediatric Dose (Aged ≥4 Weeks and Weighing ≥3 kg to &lt;20 kg)</u>: Oral Suspension, twice-daily weight-based dosing <u>Children Weighing ≥11 kg but &lt;25 kg</u>: Chewable tablet twice daily weight-based dosage <u>Children Weighing &gt;25kg</u>: Weight-based film-coated tablet twice daily or chewable tablets twice daily</p>	<h2>Raltegravir</h2>

#### Use Nevirapine if Raltegravir unavailable

<p><u>Oral Solution</u>: 10mg/mL <u>Tablets</u>: Immediate-release 20mg, XR 100mg &amp; 400mg</p> <p><u>Paediatric Dose</u>: 120-200 mg/m<sup>2</sup>/dose once daily for two weeks then twice daily</p> <p><u>Zidovudine + Lamivudine + Nevirapine</u> available as fixed dose combination in paediatric dose range of 60mg/30mg/50mg</p>	<h2>Nevirapine</h2> <p>(NVP)</p>
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## 4 Treatment Literacy

OR

### Zidovudine + Lamivudine + Raltegravir

<p><u>Oral Solution:</u> 10mg/mL; given up to approx. 15kg <u>Tablets:</u> 300mg</p> <p><u>Paediatric Dosing:</u> 180-240 mg/m<sup>2</sup> /dose twice daily OR 12 mg/kg /dose twice daily (wt 4-&lt;9kg); 9mg/kg/dose twice daily (9-30kg); 300mg (&gt;30kg)</p>	<h2>Zidovudine</h2> <p>(AZT, ZDV)</p>
<p><u>Oral Solution:</u> 10mg/mL, 5mg/mL; given up to approx. 15kg <u>Tablets:</u> 150mg (scored), 300mg</p> <p><u>Paediatric Dose (Aged ≥4 Weeks):</u> 4mg/kg/dose (up to 150mg depending on weight) twice daily</p>	<h2>Lamivudine</h2> <p>(3TC)</p>
<p><u>Formulations:</u> film-coated tablets, chewable tablets, oral suspension</p> <p><u>Infant/Pediatric Dose (Aged ≥4 Weeks and Weighing ≥3 kg to &lt;20 kg):</u> Oral Suspension, twice-daily weight-based dosing <u>Children Weighing ≥11 kg but &lt;25 kg:</u> Chewable tablet twice daily weight-based dosage <u>Children Weighing &gt;25kg:</u> weight-based film-coated tablet twice daily or chewable tablets twice daily</p>	<h2>Raltegravir</h2>

### Use Nevirapine if Raltegravir unavailable

<p><u>Oral Solution:</u> 10mg/mL <u>Tablets:</u> Immediate-release 20mg, XR 100mg &amp; 400mg</p> <p><u>Paediatric Dose:</u> 120-200 mg/m<sup>2</sup>/dose once daily for two weeks then twice daily <u>Zidovudine + Lamivudine + Nevirapine</u> available as fixed dose combination in paediatric dose range of 60mg/30mg/50mg</p>	<h2>Nevirapine</h2> <p>(NVP)</p>
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## 4 Treatment Literacy

### THIRD LINE

Abacavir + Lamivudine + Raltegravir **OR** Zidovudine + Lamivudine + Raltegravir

#### Abacavir + Lamivudine + Raltegravir

<p><u>Oral Solution</u>: 20mg/mL <u>Tablets</u>: 200mg (scored)</p> <p><u>Paediatric Dose</u>: <i>Oral Solution (Aged ≥3 Months)</i>: 8mg/kg/dose twice daily or 16mg/kg once daily 300mg</p> <p><i>Tablets</i>: Dosing varies based on the weight of child twice daily</p>	<h2>Abacavir</h2> <p>(ABC)</p>
<p><u>Oral Solution</u>: 10mg/mL, 5mg/mL; given up to approx. 15kg <u>Tablets</u>: 150mg (scored), 300mg</p> <p><u>Paediatric Dose (Aged ≥4 Weeks)</u>: 4mg/kg/dose (up to 150mg depending on weight) twice daily</p>	<h2>Lamivudine</h2> <p>(3TC)</p>
<p><u>Formulations</u>: Film-coated tablets, chewable tablets, oral suspension</p> <p><u>Infant/Pediatric Dose (Aged ≥4 Weeks and Weighing ≥3 kg to &lt;20 kg)</u>: Oral Suspension, twice-daily weight-based dosing <u>Children Weighing ≥11 kg but &lt;25 kg</u>: Chewable tablet twice daily weight-based dosage <u>Children Weighing &gt;25kg</u>: Weight-based film-coated tablet twice daily or chewable tablets twice daily</p>	<h2>Raltegravir</h2>

## 4 Treatment Literacy

OR

### Zidovudine + Lamivudine + Raltegravir

<p><u>Oral Solution:</u> 10mg/mL; given up to approx. 15kg <u>Tablets:</u> 300mg</p> <p><u>Paediatric Dosing:</u> 180-240 mg/m<sup>2</sup> /dose twice daily OR 12 mg/kg /dose twice daily (wt 4-&lt;9kg); 9mg/kg/dose twice daily (9-30kg); 300mg (&gt;30kg)</p>	<p style="text-align: center;"><b>Zidovudine</b> (AZT, ZDV)</p>
<p><u>Oral Solution:</u> 10mg/mL, 5mg/mL; given up to approx. 15kg <u>Tablets:</u> 150mg (scored), 300mg</p> <p><u>Paediatric Dose (Aged ≥4 Weeks):</u> 4mg/kg/dose (up to 150mg depending on weight) twice daily</p>	<p style="text-align: center;"><b>Lamivudine</b> (3TC)</p>
<p><u>Formulations:</u> Film-coated tablets, chewable tablets, oral suspension</p> <p><u>Infant/Pediatric Dose (Aged ≥4 Weeks and Weighing ≥3 kg to &lt;20 kg):</u> Oral Suspension, twice-daily weight-based dosing <u>Children Weighing ≥11 kg but &lt;25 kg:</u> Chewable tablet twice daily weight-based dosage <u>Children Weighing &gt;25kg:</u> Weight-based film-coated tablet twice daily or chewable tablets twice daily</p>	<p style="text-align: center;"><b>Raltegravir</b></p>

# ARV Dosing Information of Children (aged 3-10 years) in Jamaica

## FIRST LINE

Zidovudine/Lamivudine/Nevirapine **OR** Abacavir/Lamivudine /Nevirapine **OR** Zidovudine/Lamivudine/Efavienz

### Zidovudine/Lamivudine/Nevirapine

<p><u>Oral Solution:</u> 10mg/mL; given up to approx. 15kg  <u>Tablets:</u> 300mg  <u>Paediatric Dose:</u>          180-240 mg/m<sup>2</sup> /dose twice daily OR          12 mg/kg /dose twice daily (wt 4-&lt;9kg);          9mg/kg/dose twice daily (9-30kg); 300mg (&gt;30kg)  <u>Zidovudine + Lamivudine + Nevirapine</u> available as fixed dose combination in paediatric dose range of 60mg/30mg/50mg  <u>ZidolamN (Zidovudine + Lamivudine + Nevirapine)</u> 300/150/200 adult formulation tablets can be scored to half or three-quarter tablets based on the calculated weight based dose for older children</p>	<h2>Zidovudine</h2> <p>(AZT, ZDV)</p>
<p><u>Oral Solution:</u> 10mg/mL, 5mg/mL; given up to approx. 15kg  <u>Tablets:</u> 150mg (scored), 300mg</p> <p><u>Paediatric Dose (Aged ≥4 Weeks):</u>          4mg/kg/dose (up to 150mg depending on weight) twice daily  <u>Zidovudine + Lamivudine + Nevirapine</u> available as fixed dose combination in paediatric dose range of 60mg/30mg/50mg  <u>ZidolamN (Zidovudine + Lamivudine + Nevirapine)</u> 300/150/200 adult formulation tablets can be scored to half or three-quarter tablets based on the calculated weight based dose for older children</p>	<h2>Lamivudine</h2> <p>(3TC)</p>
<p><u>Tablets:</u> Immediate-release 20mg, XR 100mg and 400mg; <u>Oral Suspension:</u> 10mg/mL</p> <p><u>Paediatric Dose:</u>          120-200 mg/m<sup>2</sup>/dose once daily for two weeks then twice daily  <u>Zidovudine + Lamivudine + Nevirapine</u> available as fixed dose combination in paediatric dose range of 60mg/30mg/50mg  <u>ZidolamN (Zidovudine + Lamivudine + Nevirapine)</u> 300/150/200 adult formulation tablets can be scored to half or three-quarter tablets based on the calculated weight based dose for older children</p>	<h2>Nevirapine</h2> <p>(NVP)</p>

## 4 Treatment Literacy

OR

### Abacavir/Lamivudine /Nevirapine

<p><u>Oral Solution</u>: 20mg/mL <u>Tablets</u>: 200mg (scored)</p> <p><u>Paediatric Dose</u>: <i>Oral Solution (Aged ≥3 Months)</i>: 8mg/kg/dose twice daily or 16mg/kg once daily <i>300mg Tablets</i>: Dosing varies based on the weight of child twice daily</p>	<p><b>Abacavir</b> (ABC)</p>
<p><u>Oral Solution</u>: 10mg/mL, 5mg/mL; given up to approx. 15kg <u>Tablets</u>: 150mg (scored), 300mg</p> <p><u>Paediatric Dose (Aged ≥4 Weeks)</u>: 4mg/kg/dose (up to 150mg depending on weight) twice daily</p>	<p><b>Lamivudine</b> (3TC)</p>
<p><u>Oral Suspension</u>: 10mg/mL <u>Tablets</u>: Immediate-release 20mg, XR 100mg &amp; 400mg</p> <p><u>Paediatric Dose</u>: 120-200 mg/m<sup>2</sup>/dose once daily for two weeks then twice daily <u>Zidovudine + Lamivudine + Nevirapine</u> available as fixed dose combination in paediatric dose range of 60mg/30mg/50mg</p>	<p><b>Nevirapine</b> (NVP)</p>

OR

### Zidovudine/ Lamivudine/Efavirenz

<p><u>Oral Solution:</u> 10mg/mL; given up to approx. 15kg <u>Tablets:</u> 300mg</p> <p><u>Paediatric Dose:</u> 180-240 mg/m<sup>2</sup> /dose twice daily OR 12 mg/kg /dose twice daily (wt 4-&lt;9kg); 9mg/kg/dose twice daily (9-30kg); 300mg (&gt;30kg) <u>Zidovudine + Lamivudine + Nevirapine</u> available as fixed dose combination in paediatric dose range of 60mg/30mg/50mg</p>	<p><b>Zidovudine</b> (AZT, ZDV)</p>
<p><u>Oral Solution:</u> 10mg/mL, 5mg/mL; given up to approx. 15kg <u>Tablets:</u> 150mg (scored), 300mg</p> <p><u>Paediatric Dose (Aged ≥4 Weeks):</u> 4mg/kg/dose (up to 150mg depending on weight) twice daily <u>Zidovudine + Lamivudine + Nevirapine</u> available as fixed dose combination in paediatric dose range of 60mg/30mg/50mg</p>	<p><b>Lamivudine</b> (3TC)</p>
<p><u>Capsules:</u> 50mg, 200mg <u>Tablets:</u> 600mg</p> <p><u>Paediatric Dose:</u> 367 mg/m<sup>2</sup>/dose twice daily</p>	<p><b>Efavirenz</b> (EFV)</p>

## 4 Treatment Literacy

### SECOND LINE

Abacavir/Lamivudine/ Lopinavir/Ritonavir **OR** Zidovudine/Lamivudine/Lopinavir/Ritonavir

#### Abacavir/Lamivudine/ Lopinavir/Ritonavir

<p><u>Oral Solution</u>: 20mg/mL <u>Tablets</u>: 200mg (scored)</p> <p><u>Paediatric Dose</u>: <i>Oral Solution (Aged ≥3 Months)</i>: 8mg/kg/dose twice daily or 16mg/kg once daily <i>300mg Tablets</i>: Dosing varies based on the weight of child twice daily</p>	<p><b>Abacavir</b> (ABC)</p>
<p><u>Oral Solution</u>: 10mg/mL, 5mg/mL; given up to approx. 15kg <u>Tablets</u>: 150mg (scored), 300mg</p> <p><u>Paediatric Dose (Aged ≥4 Weeks)</u>: 4mg/kg/dose (up to 150mg depending on weight) twice daily</p>	<p><b>Lamivudine</b> (3TC)</p>
<p><u>Paediatric Oral Solution</u>: 80 mg/20 mg LPV/r per mL; given up to approximately 15kg <u>Film-Coated Tablets</u>: 100 mg/25 mg LPV/r, 200 mg/50 mg LPV/r</p> <p><u>Paediatric Dose</u>: 230 mg/m<sup>2</sup> /dose twice daily or 10 mg/kg /dose twice daily</p>	<p><b>Lopinavir + Ritonavir</b> (LPV)</p>



## 4 Treatment Literacy

OR

### Abacavir/Lamivudine/ Lopinavir/Ritonavir

<p><u>Oral Solution:</u> 10mg/mL; given up to approx. 15kg <u>Tablets:</u> 300mg</p> <p><u>Paediatric Dosing:</u> 180-240 mg/m<sup>2</sup> /dose twice daily OR 12 mg/kg /dose twice daily (wt 4-&lt;9kg); 9mg/kg/dose twice daily (9-30kg); 300mg (&gt;30kg)</p>	<p><b>Zidovudine</b> (AZT, ZDV)</p>
<p><u>Oral Solution:</u> 10mg/mL, 5mg/mL; given up to approx. 15kg <u>Tablets:</u> 150mg (scored), 300mg</p> <p><u>Paediatric Dose (Aged ≥4 Weeks):</u> 4mg/kg/dose (up to 150mg depending on weight) twice daily</p>	<p><b>Lamivudine</b> (3TC)</p>
<p><u>Paediatric Oral Solution:</u> 80 mg/20 mg LPV/r per mL; given up to approximately 15kg <u>Film-Coated Tablets:</u> 100 mg/25 mg LPV/r, 200 mg/50 mg LPV/r</p> <p><u>Paediatric Dose:</u> 230 mg/m<sup>2</sup> /dose twice daily or 10 mg/kg /dose twice daily</p>	<p><b>Lopinavir + Ritonavir</b> (LPV)</p>

## 4 Treatment Literacy

### THIRD LINE

Abacavir/Lamivudine/Darunavir/Ritonavir/Raltegravir **OR**  
Zidovudine/Lamivudine/Darunavir/Ritonavir/Raltegravir

#### **Abacavir/Lamivudine/Darunavir/Ritonavir/Raltegravir**

<p><u>Oral Solution</u>: 20mg/mL <u>Tablets</u>: 200mg (scored)</p> <p><u>Paediatric Dose</u>: <i>Oral Solution (Aged ≥3 Months)</i>: 8mg/kg/dose twice daily or 16mg/kg once daily <i>300mg Tablets</i>: Dosing varies based on the weight of child twice daily</p>	<h2>Abacavir</h2> <p>(ABC)</p>
<p><u>Oral Solution</u>: 10mg/mL, 5mg/mL; given up to approx. 15kg <u>Tablets</u>: 150mg (scored), 300mg</p> <p><u>Paediatric Dose (Aged ≥4 Weeks)</u>: 4mg/kg/dose (up to 150mg depending on weight) twice daily</p>	<h2>Lamivudine</h2> <p>(3TC)</p>
<p><u>Oral Solution</u>: 100 mg/mL <u>Tablets</u>: 75mg, 150mg, 400mg, 600mg, 800mg</p> <p><u>Paediatric Dose</u>: 10-20 mg/kg q twice daily</p>	<h2>Darunavir</h2> <p>(DRV)</p>
<p><u>Oral Solution</u>: 80 mg/mL <u>Tablets</u>: 100mg</p> <p><u>Ritonavir as a Pharmacokinetic Enhancer</u>: used to enhance other protease inhibitors, dosing varies based on drug combination</p>	<h2>Ritonavir</h2> <p>(RTV)</p>
<p><u>Formulations</u>: film-coated tablets, chewable tablets, oral suspension</p> <p><u>Infant/Pediatric Dose (Aged ≥4 Weeks and Weighing ≥3 kg to &lt;20 kg)</u>: Oral Suspension, twice-daily weight-based dosing <u>Children Weighing ≥11 kg but &lt;25 kg</u>: Chewable tablet twice daily weight-based dosage <u>Children Weighing &gt;25kg</u>: weight-based film-coated tablet twice daily or chewable tablets twice daily</p>	<h2>Raltegravir</h2>

## 4 Treatment Literacy

OR

### Zidovudine/Lamivudine/Darunavir/Ritonavir/Raltegravir

<p><u>Oral Solution:</u> 10mg/mL; given up to approx. 15kg <u>Tablets:</u> 300mg</p> <p><u>Paediatric Dosing:</u> 180-240 mg/m<sup>2</sup> /dose twice daily OR 12 mg/kg /dose twice daily (wt 4-&lt;9kg); 9mg/kg/dose twice daily (9-30kg); 300mg (&gt;30kg)</p>	<p style="text-align: center;"><b>Zidovudine</b> (AZT, ZDV)</p>
<p><u>Oral Solution:</u> 10mg/mL, 5mg/mL; given up to approx. 15kg <u>Tablets:</u> 150mg (scored), 300mg</p> <p><u>Paediatric Dose (Aged ≥4 Weeks):</u> 4mg/kg/dose (up to 150mg depending on weight) twice daily</p>	<p style="text-align: center;"><b>Lamivudine</b> (3TC)</p>
<p><u>Oral Solution:</u> 100 mg/mL <u>Tablets:</u> 75mg, 150mg, 400mg, 600mg, 800mg</p> <p><u>Paediatric Dose:</u> 10-20 mg/kg q twice daily</p>	<p style="text-align: center;"><b>Darunavir</b> (DRV)</p>
<p><u>Oral Solution:</u> 80 mg/mL <u>Tablets:</u> 100mg</p> <p><u>Ritonavir as a Pharmacokinetic Enhancer:</u> Used to enhance other protease inhibitors, dosing varies based on drug combination</p>	<p style="text-align: center;"><b>Ritonavir</b> (RTV)</p>
<p><u>Formulations:</u> Film-coated tablets, chewable tablets, oral suspension</p> <p><u>Infant/Pediatric Dose (Aged ≥4 Weeks and Weighing ≥3 kg to &lt;20 kg):</u> Oral Suspension, twice-daily weight-based dosing <u>Children Weighing ≥11 kg but &lt;25 kg:</u> Chewable tablet twice daily weight-based dosage <u>Children Weighing &gt;25kg:</u> weight-based film-coated tablet twice daily or chewable tablets twice daily</p>	<p style="text-align: center;"><b>Raltegravir</b></p>

### ARV Dosing Information of Children (aged 10-19 years) in Jamaica

#### FIRST LINE

##### Tenofovir/Lamivudine/Efavirenz

<p><u>Oral Powder:</u> 40 mg per 1g of oral powder <u>Tablets:</u> 150mg, 200mg, 250mg, and 300mg</p> <p><u>Paediatric Dose (Aged ≥2 Years):</u> 8 mg/kg/dose once daily (both powder and tablet dose based on body weight) maximum 200mg</p>	<p><b>Tenofovir Disoproxil Fumarate</b> (TDF)</p>
<p><u>Oral Solution:</u> 10mg/mL, 5mg/mL; given up to approx. 15kg <u>Tablets:</u> 150mg (scored), 300mg</p> <p><u>Paediatric Dose (Aged ≥4 Weeks):</u> 4mg/kg/dose (up to 150mg depending on weight) twice daily</p>	<p><b>Lamivudine</b> (3TC)</p>
<p><u>Capsules:</u> 50mg, 200mg <u>Tablets:</u> 600mg</p> <p><u>Paediatric Dose:</u> 367 mg/m<sup>2</sup>/dose twice daily</p>	<p><b>Efavirenz</b> (EFV)</p>

## 4 Treatment Literacy

### SECOND LINE

Zidovudine + Lamivudine **OR** Abacavir/Lamivudine **AND** Lopinavir/Ritonavir **OR** Atazanavir/Ritonavir

#### Zidovudine/Lamivudine + Lopinavir/Ritonavir or Atazanavir/Ritonavir

<p><u>Oral Solution:</u> 10mg/mL; given up to approx. 15kg <u>Tablets:</u> 300mg</p> <p><u>Paediatric Dosing:</u> 180-240 mg/m<sup>2</sup> /dose twice daily OR 12 mg/kg /dose twice daily (wt 4-&lt;9kg); 9mg/kg/dose twice daily (9-30kg); 300mg (&gt;30kg)</p>	<p style="text-align: center;"><b>Zidovudine</b> (AZT, ZDV)</p>
<p><u>Oral Solution:</u> 10mg/mL, 5mg/mL; given up to approx. 15kg <u>Tablets:</u> 150mg (scored), 300mg</p> <p><u>Paediatric Dose (Aged ≥4 Weeks):</u> 4mg/kg/dose (up to 150mg depending on weight) twice daily</p>	<p style="text-align: center;"><b>Lamivudine</b> (3TC)</p>
<p><u>Paediatric Oral Solution:</u> 80 mg/20 mg LPV/r per mL; given up to approximately 15kg <u>Film-Coated Tablets:</u> 100 mg/25 mg LPV/r, 200 mg/50 mg LPV/r</p> <p><u>Paediatric Dose:</u> 230 mg/m<sup>2</sup> /dose twice daily or 10 mg/kg /dose twice daily</p>	<p style="text-align: center;"><b>Lopinavir + Ritonavir</b> (LPV)</p>

## 4 Treatment Literacy

### Or for use instead of LPV (Atazanavir/Ritonavir)

<p><u>Powder Packet:</u> 50mg/packet <u>Capsules:</u> 150mg, 200mg, 300mg</p> <p><u>Paediatric Dose:</u> 25-32 kg: 200mg ATV/100mg RTV 32-39 kg: 250mg ATV/ 100mg RTV</p>	<p><b>Atazanavir</b> (ATV)</p>
<p><u>Oral Solution:</u> 80 mg/mL <u>Tablets:</u> 100mg</p> <p><u>Ritonavir as a Pharmacokinetic Enhancer:</u> Used to enhance other protease inhibitors, dosing varies based on drug combination</p>	<p><b>Ritonavir</b> (RTV)</p>

## 4 Treatment Literacy

OR

### Abacavir/Lamivudine + Lopinavir/Ritonavir or Atazanavir/Ritonavir

<p><u>Oral Solution:</u> 20mg/mL <u>Tablets:</u> 200mg (scored)</p> <p><u>Paediatric Dose:</u> <i>Oral Solution (Aged ≥3 Months):</i> 8mg/kg/dose twice daily or 16mg/kg once daily <i>300mg Tablets:</i> Dosing varies based on the weight of child twice daily</p>	<p><b>Abacavir</b> (ABC)</p>
<p><u>Oral Solution:</u> 10mg/mL, 5mg/mL; given up to approx. 15kg <u>Tablets:</u> 150mg (scored), 300mg</p> <p><u>Paediatric Dose (Aged ≥4 Weeks):</u> 4mg/kg/dose (up to 150mg depending on weight) twice daily</p>	<p><b>Lamivudine</b> (3TC)</p>
<p><u>Paediatric Oral Solution:</u> 80 mg/20 mg LPV/r per mL; given up to approximately 15kg <u>Film-Coated Tablets:</u> 100 mg/25 mg LPV/r, 200 mg/50 mg LPV/r</p> <p><u>Paediatric Dose:</u> 230 mg/m<sup>2</sup> /dose twice daily or 10 mg/kg /dose twice daily</p>	<p><b>Lopinavir + Ritonavir</b> (LPV)</p>

## 4 Treatment Literacy

### Or for use instead of LPV (Atazanavir/Ritonavir)

<p><u>Powder Packet:</u> 50mg/packet <u>Capsules:</u> 150mg, 200mg, 300mg</p> <p><u>Paediatric Dose:</u> 25-32 kg: 200mg ATV/100mg RTV 32-39 kg: 250mg ATV/ 100mg RTV</p>	<p><b>Atazanavir</b> (ATV)</p>
<p><u>Oral Solution:</u> 80 mg/mL <u>Tablets:</u> 100mg</p> <p><u>Ritonavir as a Pharmacokinetic Enhancer:</u> Used to enhance other protease inhibitors, dosing varies based on drug combination</p>	<p><b>Ritonavir</b> (RTV)</p>



## 4 Treatment Literacy

### THIRD LINE

Raltegravir/Darunavir/Ritonavir/Zidovudine/Lamivudine **OR**  
Raltegravir/Darunavir/Ritonavir/Abacavir/Lamivudine

#### Raltegravir/Darunavir/Ritonavir/Zidovudine/Lamivudine

<p><u>Formulations:</u> Film-coated tablets, chewable tablets, oral suspension</p> <p><u>Infant/Pediatric Dose (Aged <math>\geq 4</math> Weeks and Weighing <math>\geq 3</math> kg to <math>&lt; 20</math> kg):</u> Oral Suspension, twice-daily weight-based dosing</p> <p><u>Children Weighing <math>\geq 11</math> kg but <math>&lt; 25</math> kg:</u> Chewable tablet twice daily weight-based dosage</p> <p><u>Children Weighing <math>&gt; 25</math>kg:</u> Weight-based film-coated tablet twice daily or chewable tablets twice daily</p>	<h3>Raltegravir</h3>
<p><u>Oral Solution:</u> 100 mg/mL</p> <p><u>Tablets:</u> 75mg, 150mg, 400mg, 600mg, 800mg</p> <p><u>Paediatric Dose:</u> 10-20 mg/kg q twice daily</p>	<h3>Darunavir</h3> (DRV)
<p><u>Oral Solution:</u> 80 mg/mL</p> <p><u>Tablets:</u> 100mg</p> <p><u>Ritonavir as a Pharmacokinetic Enhancer:</u> Used to enhance other protease inhibitors, dosing varies based on drug combination</p>	<h3>Ritonavir</h3> (RTV)
<p><u>Oral Solution:</u> 10mg/mL; given up to approx. 15kg</p> <p><u>Tablets:</u> 300mg;</p> <p><u>Paediatric Dose:</u> 180-240 mg/m<sup>2</sup> /dose twice daily OR 12 mg/kg /dose twice daily (wt 4-&lt;9kg); 9mg/kg/dose twice daily (9-30kg); 300mg (&gt;30kg)</p>	<h3>Zidovudine</h3> (AZT, ZDV)
<p><u>Oral Solution:</u> 10mg/mL, 5mg/mL; given up to approx. 15kg</p> <p><u>Tablets:</u> 150mg (scored), 300mg</p> <p><u>Paediatric Dose (Aged <math>\geq 4</math> Weeks):</u> 4mg/kg/dose (up to 150mg depending on weight) twice daily</p>	<h3>Lamivudine</h3> (3TC)

## 4 Treatment Literacy

OR

### Raltegravir/Darunavir/Ritonavir/Abacavir/Lamivudine

<p><u>Formulations:</u> Film-coated tablets, chewable tablets, oral suspension</p> <p><u>Infant/Pediatric Dose (Aged <math>\geq 4</math> Weeks and Weighing <math>\geq 3</math> kg to <math>&lt; 20</math> kg):</u> Oral Suspension, twice-daily weight-based dosing</p> <p><u>Children Weighing <math>\geq 11</math> kg but <math>&lt; 25</math> kg:</u> Chewable tablet twice daily weight-based dosage</p> <p><u>Children Weighing <math>&gt; 25</math>kg:</u> Weight-based film-coated tablet twice daily or chewable tablets twice daily</p>	<h2>Raltegravir</h2>
<p><u>Oral Solution:</u> 100 mg/mL</p> <p><u>Tablets:</u> 75mg, 150mg, 400mg, 600mg, 800mg</p> <p><u>Paediatric Dose:</u> 10-20 mg/kg q twice daily</p>	<h2>Darunavir</h2> (DRV)
<p><u>Oral Solution:</u> 80 mg/mL</p> <p><u>Tablets:</u> 100mg</p> <p><u>Ritonavir as a Pharmacokinetic Enhancer:</u> Used to enhance other protease inhibitors, dosing varies based on drug combination</p>	<h2>Ritonavir</h2> (RTV)
<p><u>Oral Solution:</u> 20mg/mL</p> <p><u>Tablets:</u> 200mg (scored)</p> <p><u>Paediatric Dose:</u> <u>Oral Solution (Aged <math>\geq 3</math> Months):</u> 8mg/kg/dose twice daily or 16mg/kg once daily <u>300mg Tablets:</u> Dosing varies based on the weight of child twice daily</p>	<h2>Abacavir</h2> (ABC)
<p><u>Oral Solution:</u> 10mg/mL, 5mg/mL; given up to approx. 15kg</p> <p><u>Tablets:</u> 150mg (scored), 300mg</p> <p><u>Paediatric Dose (Aged <math>\geq 4</math> Weeks):</u> 4mg/kg/dose (up to 150mg depending on weight) twice daily</p>	<h2>Lamivudine</h2> (3TC)

### ARV in Jamaica for Adolescents and Adults

#### FIRST LINE

##### First Choice: Tenofovir/Lamivudine (TDF/3TC) + Efavirenz (EFV)

<p>Adult Dosing: One 300mg tablet once a day. Take with or without food.</p>	<p><b>Tenofovir Disoproxil Fumarate</b> (TDF)</p>
<p>Adult Dosing: One 150mg tablet twice a day Take with or without food.</p>	<p><b>Lamivudine</b> (3TC)</p>

+

<p>Adult Dosing: One 600mg tablet once a day. Take on an empty stomach. Dose should be taken at bedtime to minimize dizziness, drowsiness, and impaired concentration.</p>	<p><b>Efavirenz</b> (EFV)</p>
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##### Second Choice: Abacavir or Zidovudine/Lamivudine (ABC or AZT/3TC) + Nevirapine

<p>Adult Dosing: One 300mg tablet twice a day. Take with or without food.</p>	<p><b>Abacavir</b> (ABC)</p>
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## 4 Treatment Literacy

OR

<p>Adult Dosing: One tablet twice a day.</p> <p>Take with or without food, however taking with food may minimize stomach upset.</p>	<p><b>Zidovudine + Lamivudine</b></p>
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+

<p>Adult Dosing: One 200mg tablet once a day for 14 days, then one 200mg twice daily.</p> <p>Take with or without food.</p>	<p><b>Nevirapine</b> (NVP)</p>
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### SECOND LINE

#### First Choice: Tenofovir/Lamivudine (TDF/3TC) + Atazanavir/ritonavir (ATV/r)

<p>Adult Dosing: One 300mg tablet once a day. Take with or without food.</p>	<p><b>Tenofovir Disoproxil Fumarate</b> (TDF)</p>
<p>Adult Dosing: One 150mg tablet twice a day. Take with or without food.</p>	<p><b>Lamivudine</b> (3TC)</p>

+

<p>Adult Dosing: 300mg once daily boosted with ritonavir, or 400mg once daily unboosted. Take with food.</p>	<p><b>Atazanavir</b> (Reyataz)</p>
<p>Adult Dosing: Six 100mg tablets twice a day. The full dose of Norvir is rarely used. Take with food.</p>	<p><b>Ritonavir</b></p>

## 4 Treatment Literacy

### Second Choice: Abacavir or Zidovudine/Lamivudine (ABC or AZT/3TC) + Lopinavir/ritonavir (LPV/r)

<p>Adult Dosing: One 300mg tablet twice a day.</p> <p>Take with or without food.</p>	<p><b>Abacavir</b> (ABC)</p>
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OR

<p>Adult Dosing: One tablet twice a day.</p> <p>Take with or without food, however taking with food may minimize stomach upset.</p>	<p><b>Zidovudine + Lamivudine</b></p>
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+

<p>Adult Dosing: One 400mg tablet twice daily, boosted with ritonavir.</p> <p>Take with or without food.</p>	<p><b>Lopinavir + Ritonavir</b> (LPV)</p>
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## 4 Treatment Literacy

### THIRD LINE

#### Darunavir/ritonavir (PI)

<p>Adult Dosing: One 600mg tablet twice daily, boosted with ritonavir.</p> <p>Take with food.</p>	<p><b>Darunavir</b> (DRV)</p>
<p>Adult Dosing: Six 100mg tablets twice a day. The full dose of Norvir is rarely used.</p> <p>Take with food.</p>	<p><b>Ritonavir</b></p>

#### Etravirine (NNRTI)

<p>Adult Dosing: One 200mg tablet twice a day.</p> <p>Take with food.</p>	<p><b>Etravirine</b> (ETR)</p>
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#### Raltegravir (INSTI)

<p>Adult Dosing: One 400mg tablet twice a day.</p> <p>Take with or without food.</p>	<p><b>Raltegravir</b> (RAL)</p>
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### **Dolutegravir (INSTI)**

Adult Dosing:  
INSTI: One 50mg tablet once a day.  
INSTI-experienced: One 50mg tablet twice a day.  
  
Take with or without food.

**Dolutegravir**  
(Tivicay)



### Handout: Case Scenarios for Ecological Model

#### CASE 1

Desmond was very happy that he finally got a job as a groundsman at a business office in town. It was near his home and the employer seemed nice ... but ... oh no, he will only have a day off on Sundays, so how will he fill the prescription for his ARV and attend his clinic appointment next month? He doesn't want to ask for a day off, as he just started two days ago.

What can he do?

#### CASE 2

Jasmine was advised by her doctor that her CD4 was 300 and she should start ARV. She likes the fact that it would only be one tablet at night but is thinking of postponing starting the treatment until next year. She wants to complete the last year of her course, which she takes after work three nights per week. She just can't afford to be drowsy, as she has to stay up late to study! What can she do?

#### CASE 3

Marjorie has decided to stop taking her ARV, as she is tired of taking so many pills ... three of them twice a day for "this condition," two more twice a day for her high blood pressure, and still another one three times a day for her blood sugar! What, if anything, can be done to support people like Marjorie who experience pill fatigue?

### Handout: Key Take-away Messages

- Antiretroviral therapy (ART) is a combination of ARVs used for treatment.
- Treatment does include, but is not limited to, pills, social support, and a focus on holistic health that compliments and supports adherence.
- The “best fit” first-line medication is established following discussion and understanding about side effect profile, lifestyle, other medications, etc.
- Test and Start is key. Once you are diagnosed, you can begin treatment immediately.
- Adherence to ART (ARVs and care) is very important to its success.
- Virally suppressed people will help prevent the spread of HIV—part of the prevention solution with DIGNITY!

## Facilitator Notes

