WEB ANNEX D. SURVEYS OF VALUES AND PREFERENCES

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In:

Updated recommendations on first-line and second-line antiretroviral regimens and post-exposure prophylaxis and recommendations on early infant diagnosis of HIV: interim guidelines. Supplement to the 2016 consolidated guidelines on the use of antiretroviral drugs for treating and preventing HIV infection
mentioned. Errors and omissions excepted, the names of proprietary products are distinguished by initial capital letters.

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The named authors alone are responsible for the views expressed in this publication.

This publication forms part of the WHO guideline entitled *Updated recommendations on first-line and second-line antiretroviral regimens and post-exposure prophylaxis and recommendations on early infant diagnosis of HIV: interim guideline. Supplement to the 2016 consolidated guidelines on the use of antiretroviral drugs for treating and preventing HIV infection*. It is being made publicly available as supplied by those responsible for its development for transparency purposes and information, as required by WHO (see the *WHO handbook for guideline development, 2nd edition* (2014)).
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<th>Acronym</th>
<th>Description</th>
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<tbody>
<tr>
<td>AMRO</td>
<td>WHO regional office of the Americas</td>
</tr>
<tr>
<td>AFRO</td>
<td>WHO regional office for Africa</td>
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<tr>
<td>ART</td>
<td>antiretroviral therapy</td>
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<tr>
<td>DTG</td>
<td>dolutegravir</td>
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<td>ARVs</td>
<td>antiretrovirals</td>
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<tr>
<td>EFV</td>
<td>efavirenz</td>
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<tr>
<td>EID</td>
<td>early infant diagnosis</td>
</tr>
<tr>
<td>FTC</td>
<td>emtricitabine</td>
</tr>
<tr>
<td>EMRO</td>
<td>WHO regional office for the Eastern Mediterranean</td>
</tr>
<tr>
<td>EURO</td>
<td>WHO regional office for Europe</td>
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<tr>
<td>HCWs</td>
<td>healthcare workers</td>
</tr>
<tr>
<td>PLHIV</td>
<td>people living with HIV</td>
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<tr>
<td>PMs</td>
<td>programme managers</td>
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<tr>
<td>SEARO</td>
<td>WHO regional office for South-East Asia</td>
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<tr>
<td>TB</td>
<td>tuberculosis</td>
</tr>
<tr>
<td>TDF</td>
<td>tenofovir disoproxil fumarate</td>
</tr>
<tr>
<td>WPRO</td>
<td>WHO regional office for the Western Pacific</td>
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<tr>
<td>3TC</td>
<td>lamivudine</td>
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</table>

### 1.1 Background

In May 2018, an expert meeting was convened by WHO HIV department to develop and update evidence-informed recommendations on the following:
1) the choice of antiretroviral agents for the treatment (antiretroviral therapy) and prevention (post-exposure prophylaxis) of HIV infection, and
2) the need for an indeterminate range for the virological tests (NAT) used in early infant diagnosis for a more accurate interpretation and clinical management of these test results.

These guidelines are scheduled for release in July 2018.

As part of the evidence retrieval process, WHO developed three online surveys of people living with HIV (PLHIV), healthcare workers caring for PLHIV, and HIV country programme managers in order to ascertain the acceptability, feasibility, and the values and preferences relating to new recommendations that may arise. The findings of these surveys contributed to the evidence base for the recommendations contained in the guidelines.

1.2 Methods
Following consultation with the guideline steering group, three online surveys were designed using the Survey Monkey® on-line tool:

- survey 1: people living with HIV (PLHIV),
- survey 2: healthcare workers (HCW) caring for people living with HIV and
- survey 3: HIV programme managers (PMs).

The surveys were piloted in-house with input from PLHIV and adjustments made accordingly. The surveys were translated into English, French and Spanish. In addition, the survey for PLHIV was translated into Russian.

NOTE:

The surveys were disseminated online between 01/05/2018 and 10/05/2018. This was before a potential safety issue related to neural tube defects in infants born to women who were taking dolutegravir (DTG) at the time of conception had been identified from a preliminary unscheduled analysis of an ongoing observational study in Botswana (Tsepamo study), which has reported 4 cases of babies with neural tube defects out of 426 women who became pregnant while receiving a DTG-based regimen.

Survey of people living with HIV

Key civil society networks and networks of PLHIV were contacted and snowballing was encouraged. The networks contacted included Global Network of People living with HIV (GNP+), International Coalition of Women Living with HIV (ICW), International Treatment Preparedness Coalition (ITPC), European AIDS Treatment Group (EATG), Kuala Lumpur AIDS Support Services (KLASS), African community Advisory Board (AFROCAB), among other networks.

Survey of healthcare workers
Networks providing care to PLHIV were approached and agreed to disseminate the surveys to their distribution or membership list. The networks included are shown below:

- African Network for Care of Children Affected by HIV/AIDS (ANECCA)
- Association of Nurses in AIDS Care (ANAC)
- Community of practice for the Inter-Agency Task Teams on Children and HIV and AIDS (IATT)
- European AIDS Treatment group (EATG)
- Global Network of People Living with HIV (GNP+)
- International AIDS Society (IAS)
- International Association of Providers of AIDS care (IAPAC)
- Paediatric AIDS Treatment for Africa (PATA)

**Survey of programme managers**

This survey was sent to national HIV programme managers. Programme managers were contacted via existing WHO networks within the department.

**1.3 Results**

It was not possible to calculate a response rate for the surveys as the denominator (the number of people to whom the survey was sent) was not available for any of the surveys.

**1.3.1 Demographics**

**Survey of people living with HIV**

A total of 672 people participated in the survey from 70 countries. Almost sixty percent of respondents were male (Figure 1). Two thirds (66%) were older than 35 years. There was representation from all WHO regions; however more than half were from the WHO European region (EURO), of which a large proportion (40% of total respondents) were from the Russian federation (Figure 2).

**Figure 1: Gender of respondents**

<table>
<thead>
<tr>
<th>Gender</th>
<th>Percentage</th>
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</thead>
<tbody>
<tr>
<td>Male</td>
<td>57%</td>
</tr>
<tr>
<td>Female</td>
<td>42%</td>
</tr>
<tr>
<td>Transgender</td>
<td>1%</td>
</tr>
<tr>
<td>Other</td>
<td>0%</td>
</tr>
<tr>
<td>I'd prefer not to answer</td>
<td>0%</td>
</tr>
</tbody>
</table>

**Figure 2: WHO region of respondents**

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6
Survey of healthcare workers

In total 146 HCWs from 29 countries responded to the survey. The majority were from low and middle income countries, most (90%) from the WHO African Region (AFRO) (Figure 3). The professions of respondents are shown in Figure 4.

Figure 3: WHO region of healthcare workers responding to the survey

Figure 4: Profession of healthcare workers responding to the survey
Survey of programme managers

Eighty five programme managers from 29 different countries responded. A total of 83% of respondents were from low or middle income countries. The WHO region of respondents is shown in figure 5.

Figure 5: WHO region of respondents
1.3.2 Introduction of new ARVs as preferred first choice regimen

Participants were asked a series of questions related to their preferences for a DTG-containing ARV regimen vs the current preferred first-line regimen recommended in WHO guidelines, an Efavirenz-based regimen (TDF/XTC/EFV 600mg).

Survey of people living with HIV

A total of 672 people living with HIV responded to the survey.

Two thirds of respondents preferred a dolutegravir-containing regimen as the preferred first line regimen for ART-naive people starting treatment (Figures 6 and 7).

Figure 6: Response to question “In your opinion what combination of drugs should WHO recommend as the first choice for treating HIV?”

Figure 7: Proportion of programme managers from WHO regions

<table>
<thead>
<tr>
<th>Region</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>AFRO</td>
<td>15</td>
</tr>
<tr>
<td>AMRO/PAHO</td>
<td>1</td>
</tr>
<tr>
<td>EURO</td>
<td>6</td>
</tr>
<tr>
<td>EMRO</td>
<td>2</td>
</tr>
<tr>
<td>SEARO</td>
<td>2</td>
</tr>
<tr>
<td>WPRO</td>
<td>3</td>
</tr>
</tbody>
</table>

7% of respondents preferred the ART pill that contains efavirenz 600 mg.
63% preferred the ART pill that contains dolutegravir.
7% preferred the ART pill that contains efavirenz 400mg.
23% were unsure.
to question “Should a dolutegravir-containing ART regimen be recommended as preferred first-line for ART-naive people starting treatment?”

Participants were asked their values and preferences regarding a Dolutegravir-containing regimen if taking rifampicin for TB co-infection. In this situation, an additional 50 mg of DTG is required 12 hours after the fixed-dose combination [TDF/XTC/DTG] (Figure 8).

An additional 50 mg DTG tablet was deemed acceptable or somewhat acceptable by 70% of participants. However, one third said they would prefer to take a single Fixed-dose combination tablet of Efavirenz-containing regimen, and 25% were unsure (Figure 8).

Figure 8: Response to question “How acceptable would it be to you to have to take an extra tablet of dolutegravir every day, in addition to your once a day ART and TB treatment”
Figure 9: Response to question “What would be your preferred choice of ART while taking TB treatment with rifampicin?”

Comments from PLHIV

A number of comments were received from people living with HIV. These centred around the methodology for the survey, the adverse effects of medication, the need for informed choice and autonomy of people living with HIV and better access to ARV and better ARVs. A summary of comments is found in Annex I of this document.

Survey of Healthcare workers

A total of 146 healthcare workers responded to the survey. Three quarters of healthcare workers surveyed were in favour of a DTG-containing regimen as the preferred first-line regimen for ART-naïve people starting treatment (Figure 10).

Figure 10: Response by healthcare workers to question “should a dolutegravir-containing ART regimen be recommended as preferred first-line for ART-naive people starting treatment?”
More than half (58%) of healthcare workers preferred a DTG-containing regimen with an additional 50 mg of DTG 12 hours later, as the preferred ARV regimen for the period of for HIV and TB co-infection (Figure 11).

**Figure 11: Response to question: “When using rifampicin in HIV and TB co-infection which of the following would be the best regimen during the TB treatment period”?**

The challenges perceived by healthcare workers in adopting DTG-containing regimen in large scale HIV treatment programmes are shown in Figure 12.

**Figure 12: Challenges of adopting DTG-based ART as preferred first-line regimen for large scale use in programmes**

- Ensuring toxicity monitoring
- Preventing stock-outs of dolutegravir 50mg
- Adherence DTG 50 mg TB/HIV co-infection
- Education of HCWs
- Adding 50mg DTG daily in for those being...
- Supply chain issues for TDF/3TC/DTG
- Education of PLHIV
- Interactions with other drugs
- Supply of alternative first-line regimens
- Service integration between HIV and TB
Survey of Programme Managers

A total of 85 programme managers from 29 countries responded to the survey. Three quarters agreed that a DTG-containing regimen should be the preferred first-line ARV regimen (Figure 13).

Figure 13: Response to question “Should a dolutegravir-containing ART regimen be recommended as preferred first-line for ART-naive people starting treatment?”

For HIV and TB coinfection, there was variability regarding the preferred choice of ARV regimen if being treated with Rifampicin (Figure 14) with 45% preferring an EFV-containing regimen, while 40% preferring a DTG-containing regimen.

Figure 14: Response to question “When using rifampicin in HIV and TB co-infection which of the following would be the best regimen during the TB treatment period?”
Regarding dolutegravir use in pregnancy, programme managers were asked whether the evidence for the safety and efficacy of DTG in pregnant women is sufficient to recommend it for use in HIV treatment programmes. Of note, as with all the survey, these questions were asked before a potential safety issue related to neural tube defects in infants born to women who were taking dolutegravir (DTG) at the time of conception had been identified. The response to this question demonstrated that there was no agreement from respondents with one third agreeing, one third disagreeing and one third unsure (figure 15).

**Figure 15: Response to question “Is the evidence for the safety and efficacy of DTG in pregnant women sufficient to recommend it for use in HIV treatment programmes?”**

The challenges perceived by programme managers in adopting DTG-containing ART as preferred first-line regimen for large scale use in programmes is shown in Figure 16.
Figure 16: Challenges perceived by programme managers in adopting DTG-containing regimen for large-scale use in treatment programmes.

### Key findings

The majority of people living with HIV, HCWs, and PMs preferred a DTG-containing regimen for ART-naive people starting treatment.

**For HIV/TB coinfection**, the majority (70%) of people living with HIV perceived that taking an additional 50 mg of dolutegravir was acceptable or somewhat acceptable. However, less than half (42%) preferred this drug regimen during the period of TB coinfection. As regards **Programme Managers**, there was variability in preference of DTG-containing regimen vs EFV containing regimen, with 45% preferring a DTG-containing regimen and 40% an EFV-containing regimen. There was also variability in the views of HCWs, with 58% preferring a DTG-based with extra 50mg tablet and 38% preferring an EFV-containing regimen.

**The Major challenges** for Programme Managers and Healthcare Workers in introducing a DTG-based regimen as the preferred first-line regimen included the need for toxicity monitoring, maintaining supply chain during the transition period and difficulties with administration of additional 50mg DTG in TB coinfection.

#### 1.3.3 Implementation consideration for new ARV regimens

A number of questions were asked in the survey regarding considerations for implementation of DTG-containing regimens for large-scale use in treatment programmes.
The first consideration centred around substituting people who are stable without side effects on an EFV-containing regimen to a DTG-containing regimen. More than half of PLHIV said that they would prefer to have the choice to stay on their current regimen. One quarter would be fine to change (Figure 17).

**Figure 17: Response to question “Should people who are stable on an EFV 600mg-based regimen without side effects be changed to a dolutegravir-based regimen?”**

<table>
<thead>
<tr>
<th>People Living with HIV</th>
<th>Yes</th>
<th>24%</th>
<th>No</th>
<th>12%</th>
<th>They should have a choice to remain on current regimen</th>
<th>57%</th>
<th>I don't know</th>
<th>7%</th>
</tr>
</thead>
</table>

There were mixed views among both healthcare workers and programme managers regarding this question. This is shown in Figure 18.
Figure 18: Response by programme managers and healthcare workers to question “Should people who are stable on an EFV 600mg-based regimen, without adverse effects be changed to a dolutegravir-based regimen”

1.3.4 Implementing an indeterminate range for nucleic acid-based early infant diagnosis assays

Survey of people living with HIV

Participants were asked a series of questions related to the acceptability and feasibility of introducing an indeterminate range for nucleic acid-based EID testing.

A total of 672 people living with HIV responded to the survey. It should be noted that this survey was sent to PLWHIV networks so it may have included spouses and family members who were not living with HIV.

Seventy-three percent of survey respondents indicated that they had been diagnosed with HIV, and 51% indicated that they were aware of a child in their network who had also been tested for HIV (Figures 19 and 20).
Participants of the PLWHIV survey were given an explanation and background of the rationale and purpose of implementing an indeterminate testing range for infant testing, and a scenario was posed to them to consider. 89% responded saying that they would find it acceptable to introduce an indeterminate range for infant testing and would return to the health facility to resolve an indeterminate test result.
Figure 21: Imagine that as a parent living with HIV, your baby was routinely tested for HIV soon after birth. If it was shown that repeated the HIV test for your child on two separate visits would improve the quality of the test result and resolve any ‘indeterminate test results’, would you be willing to come back to the health facility and repeat the test for your child, to prevent them going on lifelong treatment unnecessarily or ensure they are positive and should start ART?

When further asked about if a second EID test sample was needed, how caregivers prefer to be notified, 62% indicated that they would like a full explanation of what indeterminate test results mean in order to bring back their child for a second test - while another 35% indicated that they would bring back their child irrespective of the explanation provided. Only 3% indicated that they may not return for a second test.

Figure 22: If a second EID test was required for your child due to an ‘indeterminate test result’, how would you prefer to be notified about this from the healthcare facility?
Comments from PLHIV

Comments from people living with HIV focused on reducing confusion in explanations of what indeterminate testing is, and the importance of not mistakenly putting infants onto treatment.

- “It will be good to introduce this so as to not put a new baby on toxic ARVs”
- “New mothers have a lot of confusion so if this is not explained they may miss coming back for next test”
- “I would come in as requested but would like a full explanation so that I am not later surprised”

Survey of healthcare workers

A total of 146 healthcare workers responded to the survey.

Participants of the HCW survey were given an explanation and background of what the role and purpose of an indeterminate testing range for infant testing and a scenario was posed to them to consider. Ninety-five percent responded saying that they would find it acceptable to introduce an indeterminate range and that they felt caregivers would return to the health facility to resolve an indeterminate test result (Figure 23).

Figure 23: If it was shown that repeating the HIV test for HIV-exposed infants would require two separate visits to resolve the ‘indeterminate test result’, do you think mothers/caregivers would be willing to come back to the health facility to repeat the test for their child to prevent them going on lifelong treatment unnecessarily or ensure that they are positive and should start ART?

Acceptability of an Indeterminate Range - Healthcare Workers
Healthcare workers were then asked about the feasibility of implementing an indeterminate range at the facility level. Eighty-five percent of participants responded favourably and felt that it was feasible for this to be implemented and carried out by healthcare workers, though several noted in the comments that additional resources may be required. Forty-six percent of HCW indicated in a follow-up question that they had experience managing a patient that needed a second EID test sample and had returned to a health facility for a re-draw.

Figure 24: Is it feasible to introduce this concept of ‘indeterminate test result’ to mothers/caregivers?

When further asked how caregivers should be notified about the need for a second test sample, 92% indicated that they felt caregivers/mothers should receive a full explanation of what indeterminate test results mean prior to bringing back their child for a second test - only 3% indicated that they may have some concern that mothers/caregivers may not return for a second test.
Figure 25: If a second EID test is required due to an ‘indeterminate test result’, how would you prefer this be explained to the mothers/caregivers within the healthcare facility?

**Comments from Healthcare Workers:**

Comments from Healthcare Workers focused on the importance of providing adequate and thorough information to mothers about the indeterminate range, as well as potentially introducing the concept during the initial EID visit.

- “Reassuring moms on the result and next steps to be taken should be the priority of Healthcare Workers, and more resources may be needed”

- “Mothers should be counselled to know about indeterminate results at the first EID test, even if the likelihood of it occurring is low”

**Survey of Programme managers**

A total of 85 programme managers responded to the survey. Seventy-six percent agreed that implementing an indeterminate range for infant testing was acceptable.
Figure 26: If it was shown that repeating the HIV test for HIV-exposed infants would require two separate visits to resolve the ‘indeterminate test result’, do you think mothers/caregivers would be willing to come back to the health facility to repeat the test for their child to prevent them going on lifelong treatment unnecessarily or ensure that they are positive and should start ART?

Program Managers were then asked to consider the feasibility of implementing an indeterminate range for infant testing in their respective countries and to provide feedback on whether some kind of SOP exists already in the country to collect a second EID test. Sixty-four percent of respondents indicated that their country already has an SOP or mechanism to request a second sample to be collected for EID testing – either as part of national program guidelines or national laboratory guidelines when testing errors or sample rejection occur.

Figure 28: Does your country currently have an SOP to manage ‘indeterminate test results’ or testing errors necessitating a second/re-draw sample for EID testing? If yes, what is the messaging that is currently provided to facilities or caregivers about the need to re-draw a second sample?
When Program Managers were surveyed about the preference of notification provided to caregivers, 59% of respondents indicated that HCW should provide a full explanation of indeterminate testing, while another 28% said that HCW could provide a full explanation to caregivers yet should be cautious not to create confusion. Only 12% indicated that a request for an additional sample could be made without an explanation of the rationale.

Figure 28: If a second EID test sample is required due to an ‘indeterminate test result’, how would you prefer the healthcare worker to explain to the mothers/caregiver?

Comments from Program Managers:

Comments from program managers focused on reducing confusion in explanations of the definition of an indeterminate range for infant testing and the importance of not mistakenly putting infants onto treatment.

• “As these samples may come back to the national laboratory, we must make sure that there is not a delay in care for infected babies”

• “It is critical that with ongoing EMTCT efforts we expect the percentage of babies with HIV infection to be low, hence the case of indeterminates will keep on increasing. Clear and well-defined recommendations should be listed for all possible scenarios and technologies”.

Key findings – EID

The introduction of an indeterminate range was acceptable to the majority of PLHIV (89%), HCW (95%), and PMs (86%) who answered the survey.

Implementing an indeterminate range was perceived as feasible by HCWs (85%) and more than half of the PMs (63%) surveyed indicated their country already has a written SOP for requesting a new EID test sample from health facilities.
Preference for PLWHIV (62%), HCW (92%), and PMs (59%) was for caregivers/mothers to be given a full explanation of indeterminate test result vs simply being asked to come back for a new test sample.

The potential for confusion from inadequate explanations of the need for a new test sample was the most common concern for PLWHIV. Messaging from HCWs was also perceived as a challenge by both HCW and PMs.

1.4 Conclusions
These surveys demonstrated broad support for the introduction of DTG-containing regimens as preferred first-line regimens among PLHIV, healthcare workers and programme managers who responded to the survey. However, there was variability in the preferred first choice ART regimen in those receiving rifampicin for TB-coinfection. In addition, there was support among PLHIV for the option to stay on their current EFV-based regimen if doing well on this and experiencing no adverse effects.

However, care must be taken when interpreting these findings as the surveys were carried out prior to the knowledge of a safety signal a possible association between DTG at the time of conception and neural tube defects.

These surveys also provide support for the introduction of an indeterminate range for EID testing. PLWHIV, healthcare workers, and programme managers who responded to the survey found that an indeterminate range was acceptable, feasible, and necessary for the future of EID testing programmes. There was also majority consensus that caregivers/parents should be provided an explanation of indeterminate testing if their child’s test result falls in this range. Support should be provided for SOPs and clear messaging on this topic.
### Summary of comments from people living with HIV ARVs

<table>
<thead>
<tr>
<th>Theme: Survey methodology</th>
</tr>
</thead>
<tbody>
<tr>
<td>“Everything was very clear, thank you”</td>
</tr>
<tr>
<td>“Thanks for seeking our views”</td>
</tr>
<tr>
<td>“Scientific research should inform all decision regarding drugs and not opinions”</td>
</tr>
<tr>
<td>“The issues are too complex for a simple survey monkey to untangle.....These are hard questions that can only be answered in real contexts, where the people involved know their country policies, how likely stock outs are and if PEPFAR is in the country.....I really urge you to do qualitative work on this together with women living with HIV and PLHIV”</td>
</tr>
<tr>
<td>“The questions are too simple to answer complex issues and full background needed to reply to them is not here in the survey.....I am surprised to see that men are being asked to comment on ARVs for any women.....I don’t feel equipped to answer questions on TB, since I have not had TB.....I would strongly request that future V and P surveys are developed in more collaborative and informative ways”</td>
</tr>
<tr>
<td>“The survey is quite complicated, given that most people on ARVs do not really understand the difference between the various types of drugs”</td>
</tr>
<tr>
<td>“We should be provided with comparison studies to have a better understanding prior to coming to a decision”</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Theme: Adverse effects of ARVs</th>
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</thead>
<tbody>
<tr>
<td>“I know quite a lot of people who didn’t report side effects of efavirenz.......only after changing their regimen improved their quality of life significantly”</td>
</tr>
<tr>
<td>“Due to side effects of efavirenz especially on ageing population....useful to switched off and replaced with dolutegravir”</td>
</tr>
<tr>
<td>“Efavirenz destroys quality of life”</td>
</tr>
<tr>
<td>“The side effects (of efavirenz) are very off-putting I think it would be horrible to be pregnant and on this drug.......due to CNS side effects...”</td>
</tr>
<tr>
<td>“I cannot take efavirenz because of side effects”</td>
</tr>
<tr>
<td>“I have been taking efavirenz for 1 years...yet still the side effects, vomiting, weight loss, dark skin, thin.”</td>
</tr>
<tr>
<td>“I am scared to start ART that has efavirenz because of my natural mental health”</td>
</tr>
<tr>
<td>“Efavirenz caused me to have a psychotic illness and made my depression worse, I would never recommend it”</td>
</tr>
<tr>
<td>“I am allergic to efavirenz, alternative medicines should be available for people like me”</td>
</tr>
<tr>
<td>No dolutegravir around here. The drug is not good for us</td>
</tr>
<tr>
<td>Dolutegravir gave me insomnia. The community needs to be supported to recognize side effects</td>
</tr>
<tr>
<td>My husband was on atripla and he liked it and it gave him no side effects......for those it suits it should be ok to stay on it”</td>
</tr>
<tr>
<td>“I’m taking atripla. It suits me very well”</td>
</tr>
<tr>
<td>“At the moment I’m taking efavirenz and I’m not having any side effects”</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Theme: ARVs when undergoing treatment for TB</th>
</tr>
</thead>
<tbody>
<tr>
<td>“Not having TB, it’s difficult to be making decisions.................”</td>
</tr>
<tr>
<td>“It’s impossible to put in place a choice between dolutegravir and efavirenz 400mg with a single tablet (of dolutegravir) for TB-HIV coinfection treatment”</td>
</tr>
<tr>
<td>“I’d like to see future clinical trials and development of one pill containing dolutegravir to treat</td>
</tr>
</tbody>
</table>
**HIV and TB together..........................**

“It would be best to add 50 mg more in combine pill for those who need TB treatment”

“In my opinion it would be best to add dolutegravir 50mg in combination for those who need TB treatment”

“I agree with using extra dolutegravir in the case of people who need treatment for TB”

“You shouldn’t give efavirenz to people being treated for TB, because of toxicity of both medicines”

“The combination of DTG 100mg for TB clients will eliminate pill burden”

**Theme: Informed choice and autonomy of people living with HIV**

“You shouldn’t treat all patients the same because people’s bodies doesn’t respond equally to medicines”

“...it’s very important to have access to information to be able to decide together with the infectious diseases specialist which is the best treatment”

“Informed choice is very critical for anybody accessing treatment. Human rights should be at the center of everything ........”

“They need to change those who prefer the changes”

“Many of us don’t understand the effects of medications because of a lack of information.....”

“There is however the need for providers to provide comprehensive counseling before switching from one regimen to another”

“Everybody reacts differently to medication”

“The doctor should explain the medicines according to the state of the patient”

**Theme: Access to ARVs and better ARVs**

“Where are the injectables?”

“We need one tablet that is effective with the least side effects”

“WHO and UNAIDS and other partners should advocate ..................that countries lower the price of ARV”

“.......there should be no discrimination between developed and developing countries”

“can we have better drug something which is small and attractive”

“the least toxic and most accessible drugs should be the norm”

“how can I get therapy here in Uruguay?”

“Treatment should be lighter and shorter, 3 months or a maximum of 4 months of treatment”

**Theme: Humanitarian emergency**

“We ask WHO to implement emergency protocols for the humanitarian emergency with thousands and thousands of people ....who are dying with HIV.........In Venezuela there is a total shortage of efavirenz and all antiretrovirals. You have to act urgently...... ACT NOW”

“Help the poor and give food”
### Theme: Survey Methodology

Again, I feel this is unduly simplistic. The explanatory text for this section indicated that infants with an indeterminate test result would be put on ART for life but that is not what is reflected in the questions (in which a 2nd confirmatory test would presumably rule out those infants who did not test positive the second time). I’d like to know how often the 2nd test is also contaminated. It seems that mothers are being asked to make impossible choices when actually the health system needs strengthening to ensure that samples are gathered appropriately.

No comments as I would like to know and find out more about what does 'indeterminate test results' means. I could not imagine the anxiety and stress be put on the positive living parent to desire to give birth to a baby that is HIV negative, as they are innocent, and in my country still post a strong stigma and discrimination on positive living children. This is especially true to children who are in public school, where there are educators who less likely to be educated or sensitized with the strong stigma surrounding positive living community in Malaysia.

### Theme: Informed choice and autonomy of people living with HIV/Communication

The information should be clearly given to parents as we see most parents not coming back hence a lot of defaulters in children and late initiation.

The issue of indeterminate test results should be a part of the informed consent that the parent provides when agreeing to the original test.

I would want to know what the pros and cons of starting my child on prophylaxis were, compared with just waiting for the 2nd test result, before making a decision.

It is necessary to inform parents of the need to control and repeat tests.

Parents should be explained and verified that they understand the whole process and importance of having certainty about the final result to make their own choice.

Women are more receptive to the health of their child if staff take care to explain things well.

Care needs to be taken when explaining these results to the parent.

my first time to hear about this, I knew that one test is enough

I know there is a lot of confusion for new mothers in Kenya, when they are told indeterminate, often health care professionals do not explain this well and mothers miss coming back for another test.

I would come in as requested but would like a full explanation of ITR and the possibility of this result when getting the infant tested for the first time. That way, I am not surprised by the possible ITR.

### Theme: Importance of Topic/Magnitude of Impact on Parents

Indeterminate result is inconclusive and may turn out to be Positive or Negative on the repeat test. Therefore, I would recommend that the child continues ART prophylaxis until the repeat test is done.

Mothers have great anxiety around transmission to their babies and even when the results are not indeterminate they would prefer to have repeat testing or reassurance.

Anything that would help my baby to live without HIV, I would do as a mother, there is nothing too hating and stressful as knowing that your child is going to live with HIV for the rest of their lives, yet you your self are going through the same.

Things do happen, people do get false reading but as a parent who has had this experience with 3 pregnancies I understand the importance of the test and a definite result as well.

It will be good rather than putting new born on toxic ARV.

Please lets work on ways to reduce Indeterminate results are reduced because its not easy as mother to live without knowing the status of your child.

More measures should be taken to ensure indeterminate test results are minimally reduced if not.
occuring at all as it usually psychologically traumatizing to parents.

I know there is a lot of confusion for new mothers in Kenya, when they are told indeterminate, often health care professionals do not explain this well and mothers miss coming back for another test.

Six weeks is long. In reality, the issues of confidentiality, the in-laws in Africa remark that the child is under prolonged treatment and are asking questions. And soon, one diffuses, propagates or spreads in the beautiful family a rumor on the health of the mother. Short treatments avoid problems for mothers living with HIV.
Results of a pilot online survey of women living with HIV

July 2018
2.1 Background
In May 2018, a preliminary analysis of an independent observational study in Botswana has identified a potential safety issue with dolutegravir (DTG) - a commonly used antiretroviral (ARV) drug for HIV. The preliminary findings identified 4 cases of neural tube defects (NTDs) out of 426 women who became pregnant while taking DTG. This rate of 0.9% compares to a rate of 0.05% seen among women treated with EFV-based ARV and 0.09% among HIV-negative women. These findings were statistically significant. However, given that this was an interim analysis of an observational study from only a single country, these findings require further follow-up with a complete analysis as well as other studies. The findings of this study raise many important issues for women and adolescent girls of reproductive age living with HIV, as countries have already begun transitioning to DTG-containing ART regimens if large-scale HIV programmes.

Following a signal of potential risk of neural tube defects (NTDs) in infants born to women who were taking dolutegravir (DTG) at the time of conception, and as part of the WHO guideline development process that was underway regarding ARV regimens to treat and prevent HIV infection, a pilot online survey was developed by WHO. The objectives of the survey were to determine the values and preferences of women living with HIV, regarding the use of dolutegravir (DTG) in light of the signal of potential association of periconception DTG use with NTDs.

2.2 Methods
The pilot survey was developed in collaboration with representatives of networks of women living with HIV (The International Community of Women Living with HIV [ICW]) The survey was an online survey, disseminated through the SurveyMonkey® online platform. The pilot survey was disseminated at regional consultations of women living with HIV, which were being run by civil society networks regarding the signal of an association between DTG and NTDs.

2.3 Results
In total 51 women responded to the survey, 75% of whom were aged < 45 years (figure 1).
The country of residence of respondents is shown in figure 2. Half were from Kenya.

The country of residence of respondents is shown in figure 2. Half were from Kenya.
As shown in figure 3, half of respondents selected that WHO should recommend a DTG-containing regimen as the preferred first-line regimen for people starting ART.

**Figure 3:** which regimen should WHO recommend as preferred first-line regimen.

![Bar chart showing preference for different ART regimens](image1.png)

Women were also asked whether women and adolescent girls starting ART should be started on a DTG containing regimen. There was variability in the response with 37% of women answering no, and 37% responding yes. The remainder 20% were unsure or had other comments (6%) (Figure 4).

**Figure 4:** responses to whether adolescent girls and women should start on a DTG-containing regimen.

![Bar chart showing responses to DTG-containing regimen](image2.png)
Similarly, when asked if women and adolescent girls who are pregnant starting ART should be started on a DTG containing regimen, there was variability in the responses; 37% said yes, and 31% said no. The remaining was unsure (24%) or had other comments (8%) (Figure 5).

**Figure 5: Should women and adolescent girls who are pregnant starting ART should be started on a DTG containing regimen**

![Bar chart showing responses to the question: Should all pregnant women and adolescent girls who are starting ART be started on ART that includes dolutegravir?](image)

- **Yes**: 31%
- **No**: 37%
- **I'm not sure/I don't know**: 24%
- **Other (please comment)**: 8%

Women were then asked to consider the following scenario and select how they would respond to this:

*You are taking ART that includes EFV. You have side effects that you can live with but prefer to avoid. Your healthcare worker explains that they want to keep you on an EFV-containing regimen. The reason for this is that in the country where you live, the Ministry of health (MoH) has made a temporary decision that women and girls with childbearing potential should avoid DTG to the potential risk of birth defects. Other people are being switched to ART that contains DTG because it is considered to be an effective drug, has fewer side effects, is cheaper for the country to provide, and over time HIV is less likely to become resistant to it.*

There was variability in the responses, with 39% of women preferring to remain on an EFV-based regimen until the risk is better understood, and 37% preferring to switch to a DTG-containing regimen (figure 6).
Women were also asked if their healthcare provider advised that they could only take DTG if they were on reliable contraception, because of the possible link between DTG and NTDS, how would they feel. More than half (57%) responded that would wish their healthcare provider to give them information, and then they could decide themselves whether to take DTG; 22% said they would follow the healthcare provider’s advice and 20% said they would not take DTG. The remainder were unsure (figure 7).
Figure 7: women’s responses to question on using DTG only if consistent contraception

<table>
<thead>
<tr>
<th>Response</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>I would follow the advice of my health provider</td>
<td>22%</td>
</tr>
<tr>
<td>I would not take dolutegravir, and stay with my current treatment</td>
<td>20%</td>
</tr>
<tr>
<td>I want the health provider to give me information on the risks and support available, and I can then decide for myself whether to take dolutegravir with or without conception</td>
<td>57%</td>
</tr>
<tr>
<td>I’m not sure/ I don’t know</td>
<td>2%</td>
</tr>
</tbody>
</table>

2.4 Conclusions

This pilot survey provided an insight into the values and preferences of women living with HIV regarding DTG use in the light of a signal of NTD in women using DTG at the time of conception. The results show variability in women’s preferences regarding the use of DTG-containing regimens for women and adolescent girls starting ART, and variability in whether they would prefer to remain on EFV-containing regimen or change to DTG if experiencing adverse effects on EFV. Women placed a high value on their autonomy and wish to be able to have a choice in their ARV regimen.

In collaboration with networks of women living with HIV, it is hoped to further develop this survey and disseminate more widely to civil society networks. In collaboration with women living with HIV
it is also planned to conduct qualitative research to further explore women’s values and preferences relating to this issue.