

Recommendations for the Modelling Paediatric HIV and the need for ART Meeting, 2017

Hosted by WHO and UNAIDS, in collaboration with the
UNAIDS Reference Group on Estimates, Modelling and Projections
London, United Kingdom. 19-20 October 2017

Recommendation/Action Item	Lead Person(s)	Proposed timeline
Day 1		
Session 1: Estimating births to HIV+ women		
<u>Incorporation of children ageing out in Spectrum:</u> Children aging out to be added as a visualisation output in Spectrum	Avenir Health	Immediate
<u>Fertility among HIV+ women in Spectrum:</u> <ul style="list-style-type: none"> ● Fertility rate ratios (FRR's) to be adjusted in women not on antiretroviral therapy (ART), to incorporate subfertility results presented by Alpha Network (Milly Marston) and Jeff Eaton ● Implement parameter in Spectrum to allow changes to the FRR of women on ART. Default value for parameter will remain at 1.0 pending further analysis and investigation ● Further exploratory studies to determine potential differences are encouraged 	Milly Marston Jeff Eaton Avenir Health Avenir Health IeDEA, ALPHA Network	Immediate Immediate 2018
<u>Reviewing PMTCT coverage and FRR's in country files:</u> Coverage of programmes for prevention of mother to child HIV transmission (PMTCT) and adjustments to FRR's to be reviewed by UNAIDS, following updated demographic WPP 2017 inputs, to identify potential outliers with unusually high PMTCT coverage	UNAIDS	Immediate
<u>Estimating births to HIV+ women:</u> PMTCT coverage to be compared to survey percentage coverage when possible, rather than absolute numbers of women, to reduce the uncertainty in the MTCT rate estimates (survey data is preferable to antenatal clinic routine data, to include pregnant women that may never access antenatal services)	UNAIDS	Immediate
<u>Quality of programme data:</u> Use Elimination and "Pathways to Elimination" efforts to evaluate quality of programme data. UNAIDS to encourage country teams to investigate quality of programme data. <ul style="list-style-type: none"> ● UNAIDS to contact GVAC by November 2017 	UNAIDS, Annette Sohn	Ongoing (next call Nov 2017)
<u>Fertility rate ratio (FRR) in Spectrum:</u> ANC routine data is recommended for fitting FRR's in Spectrum if data meet completeness and reporting standards. ANC sentinel surveillance data are not recommended for fitting FRR's	Avenir Health	Immediately

Session 2: Retention on ART among pregnant women		
<u>Disengagement from care during pregnancy in Spectrum:</u> <ul style="list-style-type: none"> Further consultation between Avenir Health, Andrea Ciaranello and partners to review literature and agree on the default parameter for drop out rate from care during pregnancy in Spectrum. Drop out rate during breastfeeding should also be considered Spectrum to be reconfigured from using a monthly to drop out rate during pregnancy, to using an overall value for proportion of women retained in care at the time of delivery Spectrum to use the transmission rate of never having started ARV's for the immediate term for women who disengage from care (assuming that most of these women do not actually initiate taking the medicines) 	Avenir Health, Andrea Ciaranello, Caitlin Dugdale	Immediate
	Avenir Health	Immediate
	Avenir Health	Immediate
<u>Transmission rate among drop-outs:</u> Further research into transmission rates among women who have dropped out to be considered	Caitlin Dugdale, Andrea Ciaranello	TBC
<u>Disengagement from care in countries:</u> Further investigation into what data is currently available to countries as metrics for loss to follow up (LTFU)/disengagement, to improve estimates of drop outs. Liaison with UNAIDS country SI advisors is recommended	UNAIDS, leDEA	Oct 2018 (next Paediatric meeting)
Session 3: Transmission rates		
<u>Transmission probabilities by ART regimen:</u> Transmission probabilities to remain unchanged. Continued literary research to monitor for new results is encouraged <ul style="list-style-type: none"> UNAIDS to organise teleconference with Lynne Mofenson after AIDS conference 2018 	UNAIDS, Lynne Mofenson	Ongoing (next call July 2018)
<u>Incident infections during pregnancy and breastfeeding:</u> Exploratory studies on women who are seroconvert during pregnancy or breastfeeding are encouraged and welcomed (e.g. potential Lesotho and Swaziland) <ul style="list-style-type: none"> UNAIDS to organise teleconference with Fatima Oliveira Tsiouris February 2018 	UNAIDS, Fatima Oliveira Tsiouris	Ongoing (next call in February 2018)
Session 4: Age specific ART (and retention and VL suppression) among children and adolescents		
<u>Age-specific ART initiation:</u> UNAIDS to further encourage countries to have age-specific breakdown of treatment initiators. <ul style="list-style-type: none"> UNAIDS to arrange webinar in December 2017 	UNAIDS, SI advisors	Ongoing (next webinar Dec 2017)
<u>Priority of data sources for age-specific ART:</u> The next version of Spectrum for 2018 estimates will use country entered data by age group	Avenir Health	Sept 2018

<p>for children on ART. If countries do not have age specific data, they should use the following prioritised data sets to inform distribution (Spectrum to incorporate these options):</p> <ol style="list-style-type: none"> 1. Country programme data 2. PEPFAR programme data 3. Representative site data 4. Neighbouring country programme data 5. Cohort study (IeDEA) default values 		(by next Spectrum version; webinar in Dec 2017)
<p><u>Age at ART initiation CIPHER/IeDEA</u>: It is recommended that updated results from CIPHER or IeDEA on recent distribution of age at ART initiation by region should be added to Spectrum and used by countries where age specific data are not available</p> <ul style="list-style-type: none"> • UNAIDS to arrange teleconference with CIPHER and IeDEA in April 2018 	CIPHER, IeDEA, UNAIDS	April 2018
<p><u>ART by age in Spectrum</u>: Spectrum to include an input screen to enter an estimated distribution of percentage on ART by age, for countries who do not have numbers on ART by age</p>	Avenir Health	Immediate
<p><u>Children newly on ART in Spectrum</u>: Spectrum to consider displaying the back-calculations of new initiations of children on ART</p>	Avenir Health	May 2018
<p><u>Disengagement from care among children</u>:</p> <ul style="list-style-type: none"> • Disengagement from care in adults is currently being reconsidered (see UNAIDS Reference Group Meeting October 2017 meeting report) and shall be discussed at the next Peds meeting, to consider using the similar strategy for disengagement from care for children • UNAIDS to arrange teleconference with IeDEA in February 2018 to address the following: <ul style="list-style-type: none"> ○ To develop an improved definition of disengagement from care ○ To follow up on country specific data from cohorts for validation process 	<p>IeDEA, Avenir Health, UNAIDS</p> <p>IeDEA, UNAIDS, WHO</p>	<p>Oct 2017</p> <p>Feb 2018</p>
Session 5: Adolescents		
<p><u>Adolescent specific drop out</u>: Further research is encouraged to collect data to inform drop-out rates from care amongst adolescents</p>	IeDEA	Oct 2018 (next Paediatric meeting)
<p><u>Incorporation of vertically infected specific survival into Spectrum</u>: Regular teleconference meetings (every 2 months) to aid research into the incorporation of vertically infected specific survival into Spectrum. Avenir Health and UNAIDS to define needs for the model, and IeDEA to provide data</p> <ul style="list-style-type: none"> • UNAIDS to share short guidance summarising the assumptions in Spectrum in preparation for the meeting 	Avenir Health, UNAIDS, WHO, IeDEA, Annette Sohn, Andrea Ciaranello	Ongoing (UNAIDS to arrange call in February with IeDEA)

<p><u>Incidence rate ratios (IRR's) in Spectrum:</u></p> <ol style="list-style-type: none"> 1. Model outputs to be compared with data, where available, to further investigate whether there is a systematic trend of non-fitting and ensure the current Spectrum IRR fitting tool gives a suitably good fit to the recent survey data 2. Robert Glaubius to re-analyse temporal patterns in IRR's, including most recent PHIA data and update IRR's for countries with no recent survey, as necessary (to consider if there are consistent patterns that should be default assumptions for countries without recent survey). Analysis to be shared with interested parties once complete 	<p>Avenir Health</p> <p>Avenir Health</p>	<p>Immediate</p> <p>Immediate</p>
<p><u>HIV Exposed Uninfected (HEU):</u> Current investigations on HEU survival to be continued and to be incorporated into Spectrum once completed</p> <ul style="list-style-type: none"> • UNAIDS to arrange call in April 2018 to follow-up 	<p>Nigel Rollins, Renaud Becquet</p>	<p>Oct 2018 (call in April 2018)</p>
<p><u>Comparison of number of orphans from Spectrum and DHS:</u> Avenir Health to consider redoing comparison of proportions of orphans estimated in Spectrum and DHS with updated demographic WPP 2017 inputs</p>	<p>Avenir Health</p>	<p>Sept 2018 (by next Spectrum version)</p>
<p>Day 2 Session 1: Updates on ongoing efforts to improve quantification, forecasting and assessment of demand</p>		
<p><u>Facilitating collaboration:</u> Regular teleconference meetings (every 2 months) to be organised to facilitate collaborative work between modellers, programme planners, cohorts and policy makers</p>	<p>WHO</p>	<p>Ongoing (brief face to face meeting at next AMDS April 2018)</p>
<p>Session 2: Facilitated discussion to input development of the paediatric CEPAC Model</p>		
<p><u>CEPAC method development:</u> Further collaboration with countries is recommended to inform model assumptions, validate/calibrate outputs and improve method development. Refined results to be presented at next Paediatric Meeting</p>	<p>Andrea Ciaranello, CEPAC, WHO, PEPFAR</p>	<p>Oct 2018</p>
<p>Additional Recommendations</p>		
<p><u>EMR Coverage:</u> UNAIDS to consider adding coverage of electronic medical records (EMR) for each country as an additional output on AIDSInfo website, including a measure of the coverage of HIV relevant indicators</p>	<p>UNAIDS</p>	<p>2018</p>