Introduction to
Children HIV exposed and uninfected (CHEU) and
the 5th Workshop program

Amy Slogrove
@AmySlogrove
Stellenbosch University

Mexico City, 21 July 2019
No conflicts to declare
People-first Terminology

- Children living with HIV (CLHIV)
- Women living with HIV (WLHIV)
- Pregnant women living with HIV (pWLHIV)

- Children HIV exposed and uninfected (CHEU)
- Children HIV unexposed and uninfected (CHUU)

- Avoid MTCT – alternatives:
  - Vertical HIV acquisition
  - Perinatal and postnatal HIV acquisition
Pregnant Women Living with HIV

± 1.3 million since 2000

Source: UNAIDS 2019 estimates www.aidsinfo.unaids.org
Children HIV Exposed and Uninfected (0-14 years)

± 15 million in 2018

Source: UNAIDS 2019 estimates www.aidsinfo.unaids.org
Children HIV and ARV Exposed and Uninfected

± 70% of CHEU also ARV-exposed in 2018

Source: UNAIDS 2019 estimates www.aidsinfo.unaids.org
90% of CHEU in sub-Saharan Africa

50% of CHEU in 5 countries:
- South Africa (3.2 million)
- Uganda (1.1 million)
- Mozambique (1.0 million)
- Tanzania (0.9 million)
- Nigeria (0.9 million)

CHEU prevalence > 15% in 5 southern African countries:
- Eswatini (32%)
- Botswana (27%)
- South Africa (22%)
- Lesotho (21%)
- Namibia (16%)

Source: UNAIDS 2019 estimates www.aidsinfo.unaids.org
90% of CHEU in sub-Saharan Africa:
- South Africa (3.2 million)
- Uganda (1.1 million)
- Mozambique (1.0 million)
- Tanzania (0.9 million)
- Nigeria (0.9 million)
  - Zimbabwe (0.85 million)
  - Zambia (0.6 million)

CHEU prevalence southern African countries:
- Eswatini (32%)
- Botswana (27%)
- South Africa (22%)
- Lesotho (21%)
- Namibia (16%)
  - Zimbabwe (14%)
  - Zambia (7%)

Source: UNAIDS 2019 estimates www.aidsinfo.unaids.org
Program Introduction

• The 1st 1000 days of life – conception to age 2 years
  – In utero environment
  – Newborn
  – Infants and young children
• Programmatic and policy considerations for CHEU
• Collaboration
Session 1: The First 1000 days for children who are HIV-Exposed and Uninfected (CHEU) – Part 1
Chairperson: Ute Feucht (University of Pretoria)

8:10-8:20 Overview of the population of children who are HEU
Amy Slogrove (Stellenbosch University)

8:20-8:50 The impact of maternal HIV infection on placental and neonatal immunology among CHEU
Clive Gray (University of Cape Town)

8:50-9:20 ARV exposure and placental morphology/function
Lena Serghides (University of Toronto)

9:20-9:50 Maternal determinants of immunity among CHEU
Arnaud Marchant (Université Libre de Bruxelles)

9:50-10:15 Child mortality, growth and early childhood development – comparing children who are CHEU and children without HIV exposure in the SHINE Trial
Ceri Evans (Queen Mary University London, ZVITAMBO Institute)

10:15-10:40 Infant feeding and WASH interventions among CHEU in SHINE
Andy Prendergast (Queen Mary University London, ZVITAMBO Institute)
Starting to unravel the mechanisms of adverse birth outcomes in pWLHIV

1. The Impact of Maternal HIV Infection on Placental and Neonatal Immunology among Children HIV Exposed and Uninfected – Clive Gray
2. Antiretroviral Drugs and the Placenta – Lena Serghides

- **Control (water)**
- **Darunavir (DRV/r)+AZT/3TC**
- **Lopinavir (LPV/r)+AZT/3TC**
3. Maternal determinants of immunity among infants who are HIV exposed and uninfected – Arnaud Marchant

Risk of hospitalization for infection in CHEU and CHUU in Belgium

Hazard ratio 2.12 p=0.049

Hazard ratio 3.57 p=0.002
Sanitation Hygiene Infant Nutrition Efficacy (SHINE) trial

- Two rural districts
- 210 clusters
- Interventions started in pregnancy and continued to 18 mo of age
- **Primary outcomes**: Linear growth and haemoglobin
- All outcomes stratified by maternal HIV status (15% positive)
- **Substudy at 24 mo of age**: Early Child Development
<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Speaker Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>11:00-11:30</td>
<td>Follow-up of CHEU through routine child health services: the Zambian perspective</td>
<td>Priscilla Mulenga (Zambian MoH) and Jane Mutanga (Livingstone Central Hospital)</td>
</tr>
<tr>
<td>11:30-12:00</td>
<td>Providing care for CHEU through routine child health services: the South African perspective</td>
<td>Lesley Bamford (SA NDoH) and Ute Feucht (University of Pretoria)</td>
</tr>
<tr>
<td>12:00-12:20</td>
<td>Policy updates – integrating CHEU into the Nurturing Care Framework</td>
<td>Martina Penazzato (World Health Organization)</td>
</tr>
<tr>
<td>12:20-13:00</td>
<td>Panel discussion</td>
<td></td>
</tr>
<tr>
<td>13:00-13:15</td>
<td>Session concluding remarks</td>
<td>Claire Thorne (University College London)</td>
</tr>
</tbody>
</table>
6. Follow-up of Infants HIV exposed and uninfected through routine child health services: the Zambian Perspective – Priscilla Mulenga and Jane Mutanga
NUTRITION Good nutrition is important for you and your child to grow and be healthy. It starts with breastfeeding.

LOVE Your child learns from looking at you when you hold them close to you and love, play and talk to them.

PROTECTION Your child can be protected from disease and injury by getting immunised and by playing in safe places.

HEALTHCARE Your child needs help from you or a health worker when they are sick or injured.

EXTRA CARE Your child may need special care or support and knowing what to do and where to go will help both of you.
8. Policy Update on Implementing the Nurturing Care Framework in HIV High Prevalence Countries – Martina Penazzato
Panel Discussion
Session 3: Optional session - Harmonization and Collaboration for scientific advancement

Chairperson: Amy Slogrove (Stellenbosch University)

14:00-14:30  Harmonizing CHEU Exposure and Outcome Data – The INFORM Project  
              Kate Powis (Massachusetts General Hospital for Children)

14:30-15:00  The DECIPHER Project – Towards consensus on HIV and ARV exposure definitions  
              Barbara Burmen (University of Cape Town)

15:00-15:30  Discussion and next steps
9. Harmonizing CHEU Exposure and Outcome Data: The INFORM Project – Kate Powis

10. DECIPHER Project: Towards Consensus on HIV and ARV Exposure Definitions – Barbara Burmen
Enjoy the 5th Workshop!