USAID ECAP II
Empowered Children and Adolescents Program II

Transforming the Delivering of Children and Adolescents HIV Epidemic Control Interventions through Artificial Intelligence: The Case of USAID ECAP II Zambia

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Background

Zambia has achieved the UNAIDS 95-95-95 targets : 97-97-98

- However achievement of the first 95 in sub populations such as children and adolescents still remains a challenge
- To ensure epidemic control sustenance accelerated efforts are needed to:
  - Identify missing sub-populations
  - Link them to preventive and care services
  - Link households to social protection and economic strengthening programs
  - Timely usage of data for decision making

Intervention

561 case workers recruited → **9,334** Entered case-level data for VCA and caregivers

DATA USAGE AT PRIMARY HEALTH CARE LEVEL

Results

500 500+ VCA with HIV, co-morbidities, and socioeconomic vulnerabilities identified and linked to comprehensive services

3,086 HIV-exposed infants identified and linked to prophylactic services

5,802 (82%) VCA living with HIV linked to viral load testing 96.0% (5,512/5,802) virally suppressed

4,657 Adolescent Girls and Young Women (AGYW) at elevated HIV risk linked to high-impact prevention services

Description

Project Concern Zambia (PCZ) integrated an electronic Case Management System (eCMS) into the USAID Empowered Children and Adolescents Program II (USAID ECAP II) between March 2021 and September 2023. The eCMS features:

- Robust datasets and actionable dashboards
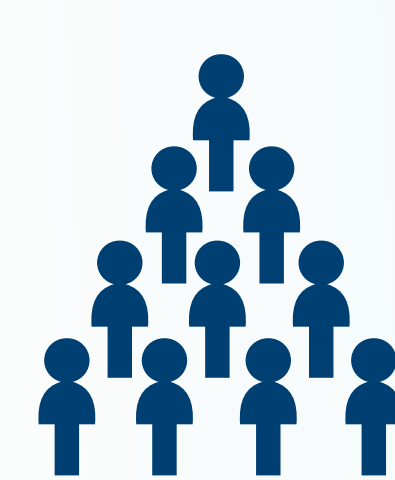- Automated data collection tools

Used flexible and practicum training approaches to train community case workers on:

- Point of care data entry using tablets
- Realtime reporting into the central server
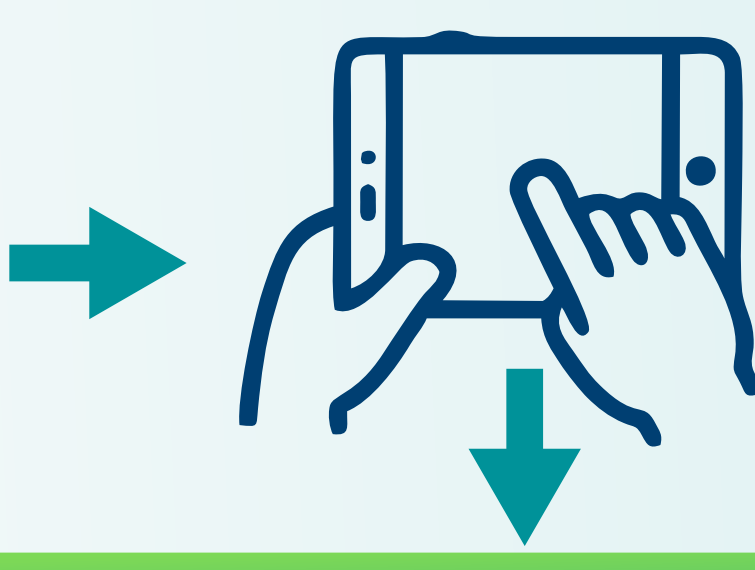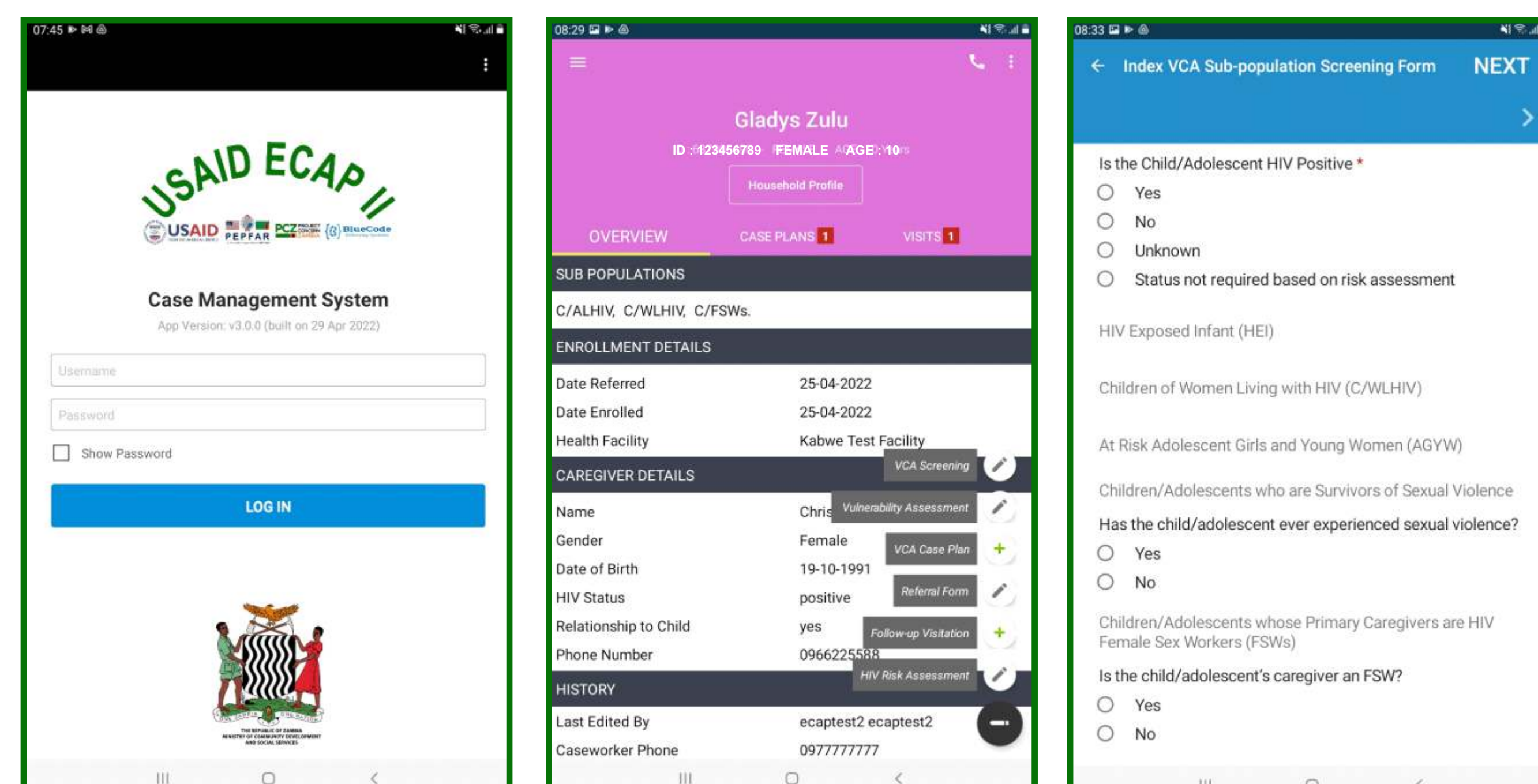- Timely usage of case-level data from the eCMS to:

Provide and link Vulnerable Children and Adolescents (VCA) and their caregivers to tailored services

- HIV prevention, treatment and care services across the 95-95-95 cascade and other clinical services such as prophylactic and treatment services for opportunistic infections, childhood immunization, HPV vaccination, and COVID -19 prevention and care services
- Social protection & household economic strengthening
- Child protection & Education

Lessons Learned

- 561 community case workers who are part of the primary health care (PHC) successfully transitioned to use the electronic system
  - Entered case-level data for 9,334 VCA and caregivers
    - 70.4% VCA, median age 10
- System enforced data usage at PHC level
  - 500+ VCA with HIV, co-morbidities, and socioeconomic vulnerabilities identified and linked to comprehensive services
  - 5,802 of 7,073 (82%) VCA living with HIV linked to viral load testing
    - 96.0% (5,512/5,802) virally suppressed
  - 3,086 HIV-exposed infants identified and linked to prophylactic services
  - 4,657 Adolescent Girls and Young Women (AGYW) at elevated HIV risk linked to high-impact prevention services

Conclusions/Next Steps

- Artificial Intelligence (AI)-led data systems in community HIV programs provide:
  - Timely and person-centered information critical for decision making
  - Tailored HIV and structural services for children and adolescents
    - Living with HIV
    - At accelerated risk of HIV acquisition
- Integration and refinement of these systems is necessary to:
  - End HIV epidemic
  - Sustain HIV epidemic control

Next Steps:
- Implementation science research needed to explore:
  - Adaptable AI solutions
  - User-friendly AI solutions
- Target community programs serving populations with high HIV incidence

Acknowledgements