



# HIV Prevention and the role of Treatment as Prevention (TasP) in correctional facilities in Southern Africa



# **HIV PREVENTION**

**What are the tools available?**

# Condom & lubrication distribution

- Prevention impact at population level
  - Commercial sex workers in Asia
- Transmission protection
  - All sex
- Limitations in correctional facilities
  - Important policy but faces political challenges.
  - Limited efficacy in settings where power-imbances influence sexual relations

# Needle/syringe & medication-assisted treatment programmes

- Prevention impact at population level
  - 0-50% reduction among PWIDs
- Transmission protection
  - Blood-borne exposures via needles
- Limitations in correctional facilities
  - Data are lacking on prevalence of needle sharing in Southern Africa.
  - Faces political challenges in many countries.

# Voluntary male medical circumcision

- Prevention impact at population level
  - 60% reduction in incidence among men having sex with women
- Transmission protection
  - Insertive vaginal sex
- Limitations in correctional facilities
  - Limited or no prevention of HIV transmission during MSM activities

# Pre-Exposure Prophylaxis (PrEP)

- Prevention impact at population level
  - 0-95% depending on setting and population
- Transmission protection
  - All sex
- Limitations in correctional facilities
  - Limited evidence of efficacy except among educated MSM in higher income settings

# Post-Exposure Prophylaxis (PEP)

- Prevention impact at population level
  - 50-90% depending on access to initiation and exposure
- Transmission protection
  - All sex & blood-borne exposures
- Limitations in correctional facilities
  - Requires timely disclosure of high-risk sexual or blood-borne behaviours

# Sexual violence reduction

- Prevention impact at population level
  - Studies limited and fail to demonstrate substantial prevention benefit
- Transmission protection
  - Forced sex
- Limitations in correctional facilities
  - Important, but unclear impact on HIV transmission



# Treatment as prevention (TasP)

- Prevention impact at population level
  - Marked (up to 96%) risk reduction among heterosexual & men who have sex with men (MSM) sero-discordant couples
- Transmission protection
  - All sex acts & blood-borne exposures
- Feasibility in correctional facilities
  - Builds on existing provision of HCT and ART in correctional facilities.
  - Requires strong systems to ensure consistent access to health services & ART

# Overview of TasP

- TasP (Treatment as Prevention) Or Test and Treat
- ART treatment in HIV+ persons irrespective of CD4 count
  - Prevents illness and disease
  - Averts new infections
  - Saves money

# Evidence for TasP

<b>Study</b>	<b>Study patients</b>	<b>Region</b>	<b>Design</b>	<b>Results</b>	<b>relevance</b>
START	HIV + CD4 >500	Africa, Europe, N & S. America, Asia, Mexico, Israel	Differed ART vs immediate ART	53% reduction in serious illness and death	Reduction in serious AIDS related events and non-AIDS related events
HPTN 052	HIV 1 sero-discordant couples	13 site (9 countries) in Africa	immediate ART vs delayed ART	96% reduction in transmission	Improved health outcomes for patients (drive by EPTB in the immediate group)
PARTNER	Heterosexual & MSM sero-discordant couples	75 European sites	Condomless sex, virally suppressed, No PrEP or PEP	No transmission if virally suppressed	Viral load suppression reduces transmission

# UNAIDS 90-90-90

- TasP is crucial to UNAIDS post 2015 agenda
- Paradigm shift focusing on human rights & *equity* to end the AIDS epidemic by 2030
- Close treatment gap in key populations
- Reduce stigma and social exclusion
- New treatment targets

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diagnosed

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on treatment

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virally suppressed



# Treatment as Prevention (TasP) in correctional facilities in Southern Africa

Is treatment as prevention (TasP) a feasible HIV prevention strategy for correctional facilities in Southern Africa?

South Africa and Zambia



# Justification

- High HIV prevalence among incarcerated populations: 25% South Africa, 27% Zambia
- Transmissions driven by: coerced and voluntary anal sex reported, razors, tattoos, sharing of needles, etc.
- Many HIV prevention measures such as condom use, post exposure prophylaxis, VMMC less accessible
- TasP has shown marked HIV risk reduction among heterosexual and MSM serodiscordant couples, and prevents both sexual & non-sexual transmission
- TasP can be implemented: builds on existing HCT & ART programmes
- TasP can prevent HIV transmission and improve health outcomes
- However, it must be implemented with greater than 90% uptake at each step of the HIV continuum of care

# Research Question

Is treatment as prevention (TasP) a feasible HIV prevention strategy for correctional facilities in Southern Africa?

Primary Hypothesis: with appropriate investments in human resources for health, HIV commodities, and prison health system strengthening, TasP can be feasibly implemented in Southern African correctional facilities.

# Research Outcomes

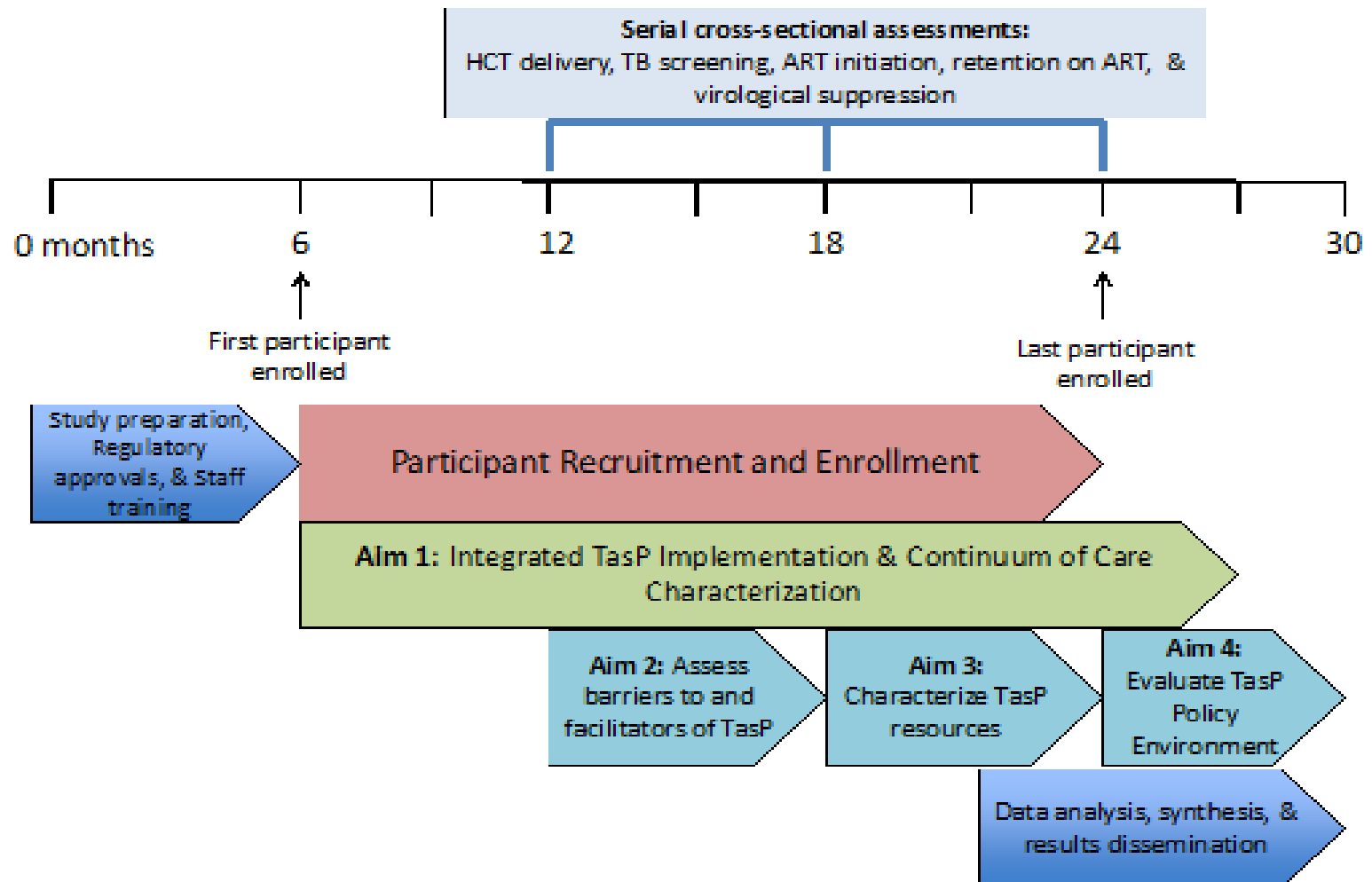
- I. *Can a priori goals at 90% implementation, across the entire **TasP HIV care continuum**, be achieved in selected correctional facilities?*
- II. **Does integration of TB services** within a TasP implementation model allow for high uptake of TB screening, diagnosis, and treatment along the TB care cascade?
- III. What are the **key enabling and constraining factors** for establishing and maintaining TasP in correctional settings in Africa?
- IV. Compared to the standard of care, what **resources** are needed for TasP implementation in Southern African correctional facilities?
- V. What key threats to and enablers of TasP **policy adoption** in correctional facilities currently exist in the Southern Africa policy environment?



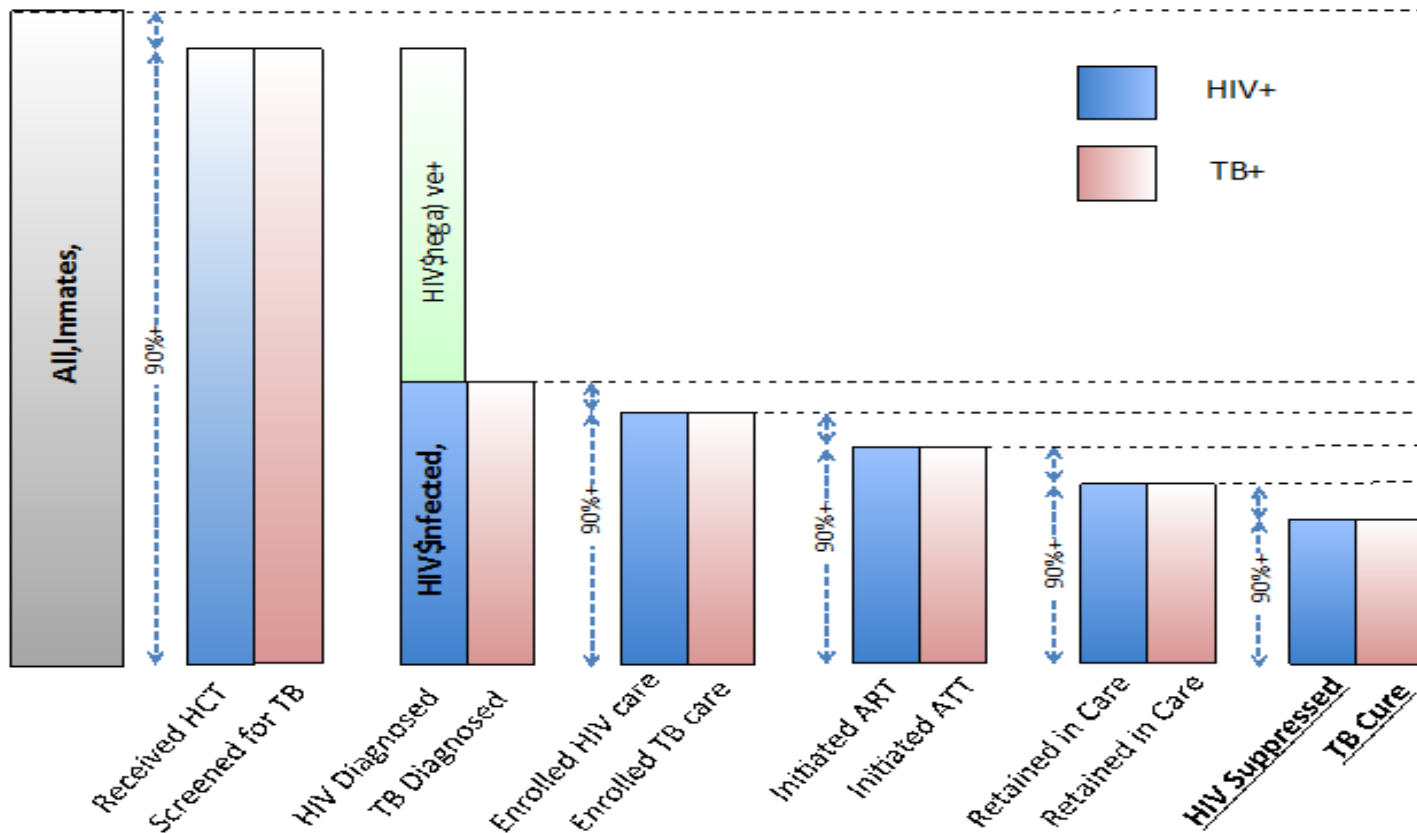
# Methods – TasP implementation

- TasP model in 3 regions: one in Zambia and two in South Africa.
- Using existing service delivery platforms:
  - **Universal HIV testing within 2 months of facility entry and annually**
  - **Access to ART for all inmates testing HIV-positive**
  - **Accelerated ART initiation after diagnosis**
  - **Clear integration of TB screening and treatment**
  - **Scaling-up inmate peer supporters and support groups**
  - **Enhanced laboratory monitoring**
  - **Improved continuity of care for prisoners initiating ART**

# Evaluation Methodology



# Main Aim: Continuum of care for TB and HIV



Cross-sectional evaluations performed at baseline, 6, and 12 months *after* ART initiation for ART outcomes

# Policy Implications

- To provide evidence for the feasibility and fidelity of TasP implementation in prisons in South Africa and Zambia.
- Recommendations would be made to include TasP as part of a package of interventions to prevent HIV transmission among inmates.
- We will leverage existing involvement of our team on key technical advisory bodies in South Africa and Zambia to engage government and local non-governmental stakeholders for prison-health policy change.

# Progress to date

- Stakeholder engagements
- Regulatory approvals have been sought from the
  - Research Ethics Committees / Institutional Review Boards
    - Univ. of Witwatersrand & Univ. of the Western Cape
    - Univ. of Zambia
    - Univ. of N.Carolina at Chapel Hill & Univ. of Alabama at Birmingham
    - London School of Hygiene and Tropical Medicine
  - Correctional services
    - Department of Corrections in South Africa
    - The Zambian Prisons Service