





Antiretroviral Treatment as Prevention • ANRS 12249 Ukuphila kwami, ukuphila kwethu (my health for our health)

## Treatment as Prevention (TasP) studies: the challenge of CD4 count treatment eligibility changes in Africa. Perspectives from the TasP ANRS 12249 trial

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HIV testing of all adult members of a community, followed by immediate ART initiation of all, or nearly all, HIV-infected participants regardless of immunological or clinical staging i.e. Universal Test and Treat

will prevent onward transmission and **reduce HIV incidence** in this population

# TasP trial area





#### Sub-district : Hlabisa

#### Region : KwaZulu-Natal

- Zulu speaking people
- HIV prevalence is ~30%
- Unemployment is ~80%
- 3 DoH clinics located in the trial area



4 clusters opened in 2012 6 clusters opened in 2013 12 clusters opened in 2014

# TasP trial design



- TasP is a cluster randomized trial.
  - Each cluster has a population of approx. 1250 adults (16+ years).
  - The TasP intervention has 2 components: "universal" repeat testing (all clusters) + early treatment (intervention cluster)
- In each cluster, rounds of home-based HIV testing repeated every ~ 6 months
- All HIV+ identified participants are referred to local TasP clinics (at least one clinic per cluster)

Control clusters	Intervention clusters	
ARV treatment according to national guidelines (<350 CD4 or WHO stage 3 or 4) (since Jan. 2015, <500 CD4)	ARV treatment regardless of CD4 or clinical staging	



## **Current package of interventions**

- From March 2012
  - Home-based HIV testing
  - Clinic-based HIV testing for individuals not wanted to test at home
  - Clinic-based ART
  - ART counselling
- In June 2013, added:
  - Phone call / Home visit if not linked to TasP clinics within 3 months
  - **D** Phone call by nurse in case of a missed appointment in TasP clinic
  - A 'tracking team' for patients not reached by the nurse or requiring additional support

### Model parameters versus observed estimates



Protocol v2.0		Observation phase 1 (2012-14)	
Parameter	Assumptions	Indicator	Values (%) [95% CI]
HIV test offer among those registered	90%	Contact rate per calendar round (/CR)	67% [63-71]
Test acceptance among those offered	80%	HIV ascertainment rate/CR	77% [74-80]
Linkage to care upon diagnosis among those accepting the test	70%	Entry into care within 6 months among individuals not in care	48% [44-52]
Proportion of all HIV+ on ART in end 2011	<b>39</b> %	ART coverage at the beginning of the trial	39% [36-42]
HIV prevalence in end- 2011 (15 years +)	24%	HIV prevalence (first DBS)	30% [29-31]
HIV incidence in end 2011 (15 years +)	2.4 / 100 PY	Observed HIV incidence	2.35 / 100 PY [1.40-3.31]

Presented by Iwuji et al. at Melbourne (July 2014)

100% 86.0% Ŧ 502 13.4% 70.1% 75% 363 9.7% 54.4% 3751 45.0% 50% 554 100.0% T 14.8% 38.1% 515 399 2726 13.7% 72.7% 2268 10.6% 60.5% 25% 1486 39.6% 1174 1031 31.3% 27.5% 0% Infected Diagnosed Retained on ART Virally ever in Care in care

Estimated Cascade of HIV care at the end of phase 1



without TasP

due to TasP

suppressed

## Preliminary results

- As of 31<sup>st</sup> May 2014
- 10 clusters
- Taking into account both TasP and DoH clinics
- Including non-observed HIV+ living in the area





#### TasP trial area (end of phase 1)







# **38.1%** (27.5% without TasP)

#### **UNAIDS's target**



## Implementation the 500 CD4 guideline



- Started in January 2015 (as in DoH clinics)
  - Affects mainly the clusters opened in 2014
- Conditional power estimates done in November 2014 testing several scenarios (taking into account the new guideline):
  - power to detect an impact on incidence range from 40 to 95% (depends mainly on the baseline incidence in the 12 clusters opened in 2014)
  - DSMB concluded that there is no reason to stop this study for futility at this point
  - Recommendation of implementing new interventions to improve the cascade of HIV care and treatment

May 2015:

Interim analysis among the ten first clusters

DSMB will look at it next week

# Ongoing discussion



- Implementation of a new interventions package?
  - Community level: improving community engagement and mobilization package
  - HIV testing: combination of repeat home-based testing, mobile testing and clinic testing
  - Linkage to care: SMS reminders, counselling and motivational support (phone calls, face-to-face visits), escort to clinics, health navigators, clinical assessment at home, option between home-based or clinic-based ART initiation
  - Retention in care: SMS reminders, phone calls and home visits in case of missed appointment, simplified ART care for stable patients, additional health services in clinics

# Ongoing discussion



How to implement this new interventions package?

Contingent upon May 12 DSMB conclusions
Starting during the 2<sup>nd</sup> semester of 2015?

Extending follow-up until mid-2018?

## Conclusions



- Real world is complex
- Impact of interventions on the cascade, and therefore on HIV incidence takes time
- Can we reach 90-90-90 at population level in real world?
- Which services/tools to propose in a comprehensive HIV interventions package?
- What would be the impact on HIV incidence?
- At what cost?



# Primary objective remains

to demonstate that a UTT approach reduces HIV incidence at population level

Target date to close the trial: June 2016

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