

# LARGE-SCALE, RAPID TRANSFER OF HIV- INFECTED PATIENTS FROM HOSPITAL- BASED TO PRIMARY HEALTH CLINICS IN SOUTH AFRICA

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# Background: HIV care in South Africa

- Largest ART program in the world
- PEPFAR cuts by 50% over next 5 years
- Patients will need to transfer from non-government to public clinics
- HIV care shift:

**Hospital  
Physician-based  
PEPFAR-funded**



**Primary health clinic  
Nurse-led  
Government-funded**

# Background: Transfer of care to primary health clinics

- Limited data from sub-Saharan Africa show good outcomes after transfer
- Data focus on slow transfer of stable, selected patients
  - 1<sup>st</sup> line ART, suppressed, few comorbidities
- Highest rates of LTFU to first clinic visit

# Open Questions

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- What is the impact of rapid, large-scale transfer of ART patients?
- Do patients make it to transfer clinic?
- Is ART interrupted?
- Do complex patients fare worse?

# Objective



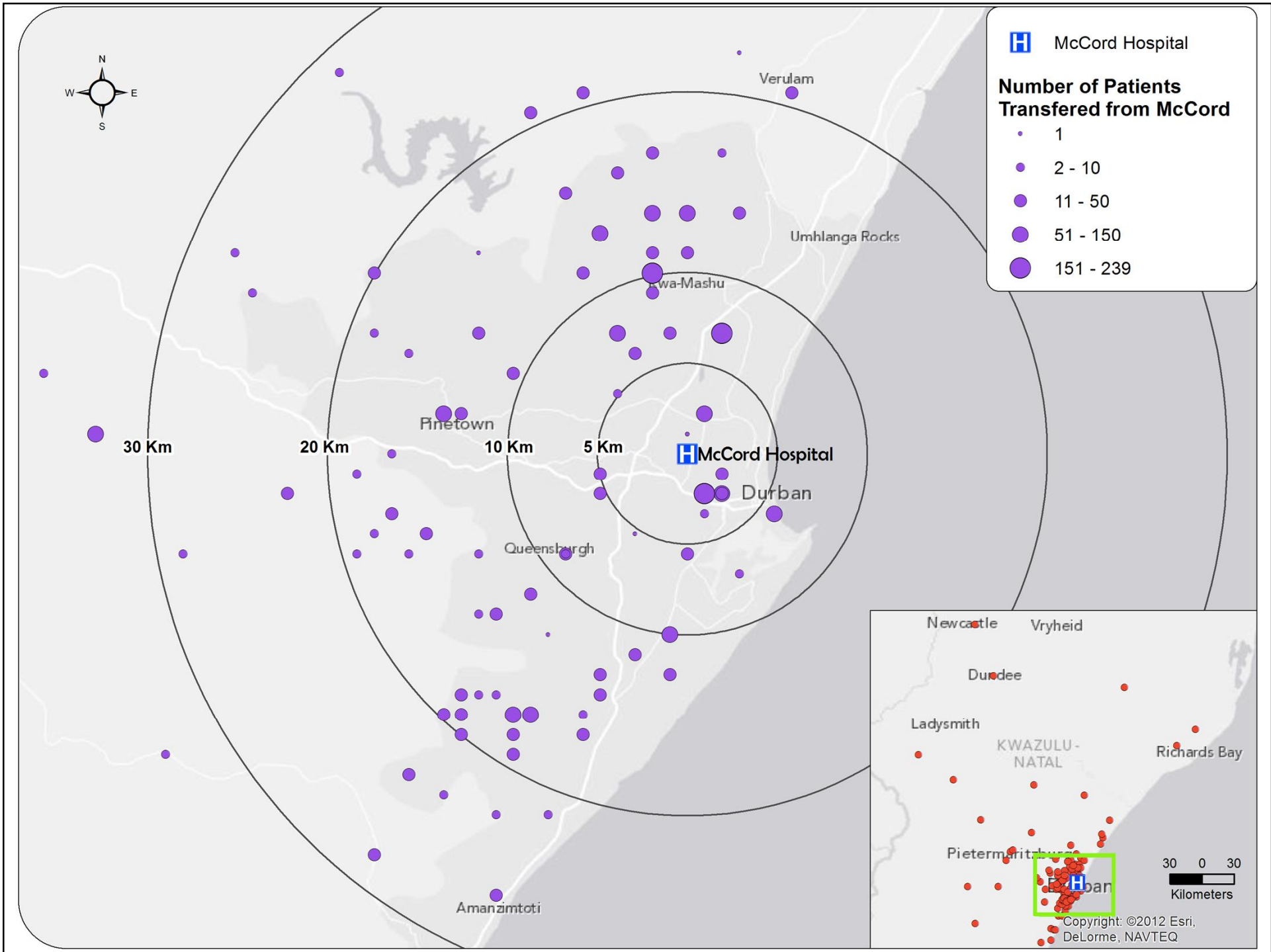
- To evaluate a rapid, large-scale transfer from a hospital-based HIV clinic in South Africa to government-funded community-based clinics

# Transfer Process: McCord Hospital

- Hospital-based HIV clinic in Durban
- Semi-private, government subsidized, supported by PEPFAR since 2004
- Patients paid a monthly fee for care
- Initiated >10,000 people on ART
- Considered Center of Excellence
- PEPFAR funding ended in June 2012

# Transfer Process

- ~4000 patients transferred to public sector, March-June 2012
- Target clinics and allotted spaces identified with the municipal and provincial DOH
- Clinic choice based on area and care needs:
  - Primary Health Clinic (PHC) 1<sup>st</sup> line ART
  - Community Health Clinic (CHC) 2<sup>nd</sup> line ART
  - Hospital-based Clinic (Hospital) comorbidity
- Transferred to 171 clinics





# Transfer Process

- Most patients transferred at first visit during the transfer period
- Complex patients received “red dot” and were not transferred until a subsequent visit:
  - Ill or medically complex
  - Concerns about drug resistance
  - New ART initiates or regimen change

**Patient presented for consultation, labs or pharmacy**



**Counselor**

**Group session  
Contact details**



**Clinician**

**Assigned red dots  
Chose transfer clinic  
Transfer letter**



**Pharmacy**

**Issued medication (buffer supply)**



**M&E**

**Transition forms entered on  
database  
Update clinic schedule list**

# Methods: Study Population



- Adults ( $\geq 18$ y) patients on ART
- English or Zulu speaking
- Visited HIV clinic March-June 2012

# Methods: Data Collection



- Patients called chronologically, beginning in August 2012
- Standardized survey during phone interview
- Surveyed regarding attendance at assigned clinic, reasons for delayed/failure to transfer, treatment interruption

# Methods: Data Validation



- Checked patient's self-report against clinic ART register
- We randomly selected 10 clinics from the 80 closest clinics to McCord

# Methods: Outcomes



1. Linkage to care
  - Self-report of 1<sup>st</sup> transfer clinic visit
2. Validated transfer clinic visit
  - Visit documented in clinic register
3. Weighted average
  - Validated clinic visit for reached and unreached subjects

# Results: Cohort

**Visit during transfer period  
March – June 2012  
3,940**



<b>Unreached</b>	<b>509</b>
<b>Refused survey</b>	<b>5</b>
<b>Lost to follow up</b>	<b>22</b>
<b>Known deaths</b>	<b>18</b>

**Reached after transfer  
Transfer cohort  
3,386**

# Results: Transfer Cohort Characteristics (N= 3,386)

▪ Female	60%
▪ Age, mean (sd)	40 (10)
▪ Pre-ART CD4 $\mu$ l, (IQR)	111 (46-174)
▪ Most recent CD4 $\mu$ l	376 (251-529)
▪ Assigned to PHC	67%
▪ “Red dot” status	15%
▪ Median time to call	8 mo



# Results: Self-reported linkage to care

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- 3,378 (99.8%) attended a transfer clinic
- 3,363 (99.3%) did not miss ART doses since transfer

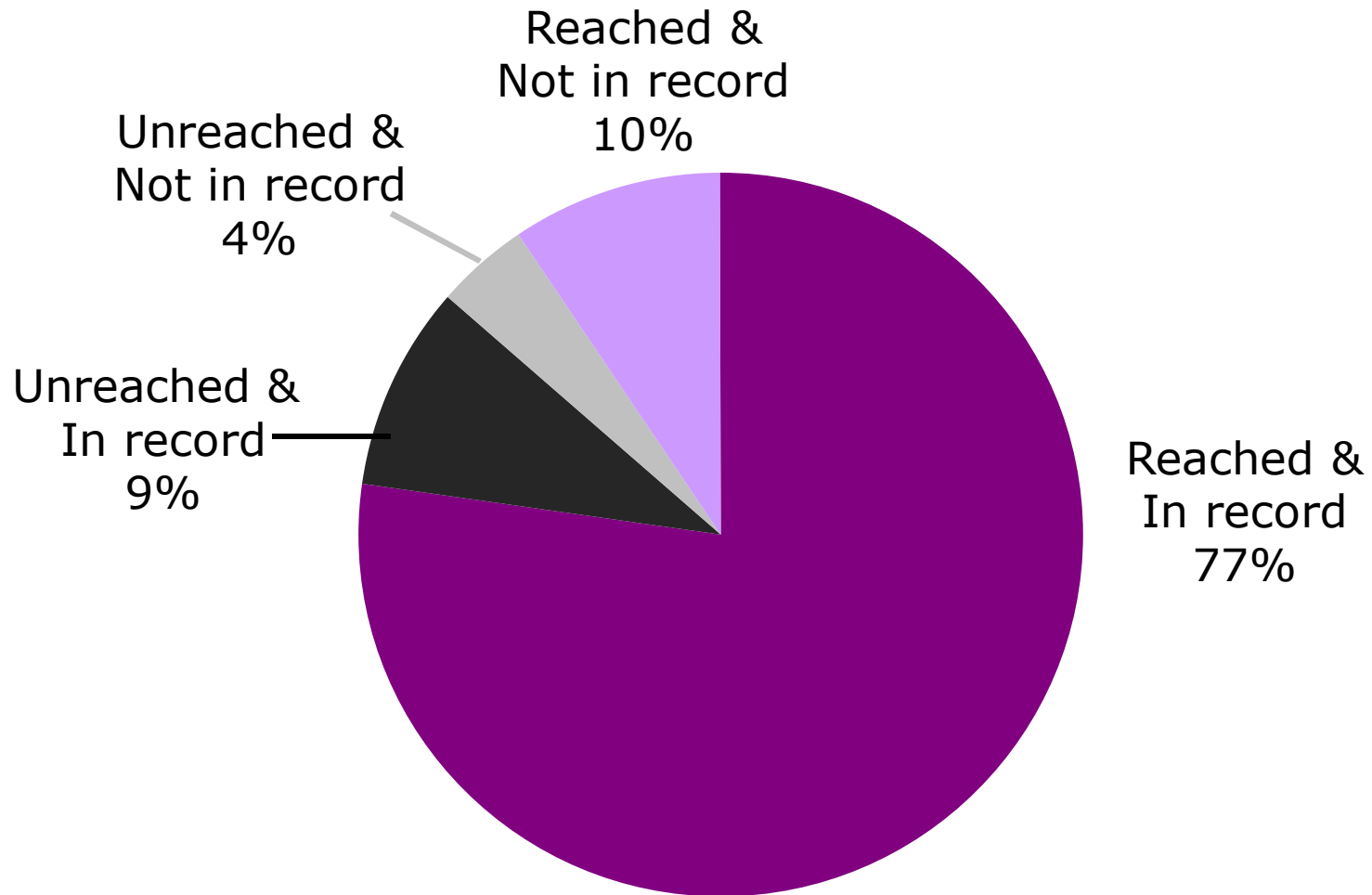
# Results: Self-reported attendance at different clinic

- 865 (26%) visited a different clinic than assigned
- Most common reasons (N=865):
  - 23% told by receiving clinic to go elsewhere
  - 16% stigma concerns
  - 14% inconvenient location

# Results: Validation

- 3 of planned 10 clinics validated so far
- 460 patients assigned to these 3 clinics
  - 88% reached by phone survey, 64 report attending a different clinic
- Of reached subjects (N=342) reporting attendance at clinic
  - 89% in clinic record
- Of unreached subjects (N=54) referred
  - 69% in clinic record

# Results: Validation



# Weighted average entire cohort

$$\begin{matrix} (\text{reached})(\text{validated}) & + & (\text{unreached})(\text{validated}) & = \\ (.87) & & (.13) & & (.89) & & (.69) \end{matrix}$$

Estimated success of transfer = 87%

# Limitations



- Site may not be representative of public sector hospital-based clinics in South Africa
- 13% of transferred patients were unreachable, plan for death registry
- Primary outcome relies on self-report
- No data on clinical outcomes or longer term retention in care following initial visit

# Conclusions

- 99.8% self-report a first visit following a large-scale transfer
- Unreachable patients less likely to attend transfer clinic, based on ART registers
  - 69% vs 89%
- “Red dot” status did not effect success of transfer

# Implications

- Why might this program have been so successful?
  - Coordination with DOH for transfer clinic slots
  - Consideration of patient preferences, clinical indications for level of care
  - Ability to dispense extra medication
  - Coordination between counselors, clinicians, pharmacists, monitoring and evaluation team
  - Motivated and counseled patients



# Implications

- Updated contact information may help facilitate transfer interventions
- Transfer to public clinic sites requires:
  - collaboration with receiving clinics
  - consideration of individual patient needs
- Long-term retention in care should be evaluated to assess transfer process

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# Patients at Sinikithemba Clinic

