



Southern African HIV Clinicians Society 3rd Biennial Conference

13 - 16 April 2016
Sandton Convention Centre
Johannesburg

**Our Issues, Our Drugs,
Our Patients**

www.sahivsoc.org
www.sahivsoc2016.co.za

Can we treat our way out of the epidemic?

Francesca Conradie
Southern African HIV Clinicians
Society



2016

Overview

- Have we ever managed to treat our way our an epidemic?
- The Science
- 90 90 90
 - Know their status
 - Started on treatment
 - Viral load undetectable

Have we ever managed to treat our way our an epidemic

- Use of INH in the Eskimo population in Alaska

Isoniazid Prophylaxis Among Alaskan Eskimos: A Final Report of the Bethel Isoniazid Studies^{1,2}

G. W. Comstock, C. Baum and Dixie E. Snider, Jr.

⊕ Author Affiliations

Abstract

As a result of numerous trials, isoniazid prophylaxis was shown to be effective in preventing tuberculosis in many different populations and under a variety of conditions. However, the duration of the protective effect has been of some concern.


In a previous report, the protective effect of isoniazid prophylaxis among Alaskan

Eskimos was shown to persist through the fifteenth year after its administration. In this final report, the protective effect is shown to persist for more than 19 years. The magnitude of the effect is related to the amount of isoniazid taken. The results of the study are consistent with the hypothesis that the decrease in risk of tuberculosis produced by isoniazid preventive therapy is lifelong.



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The Science

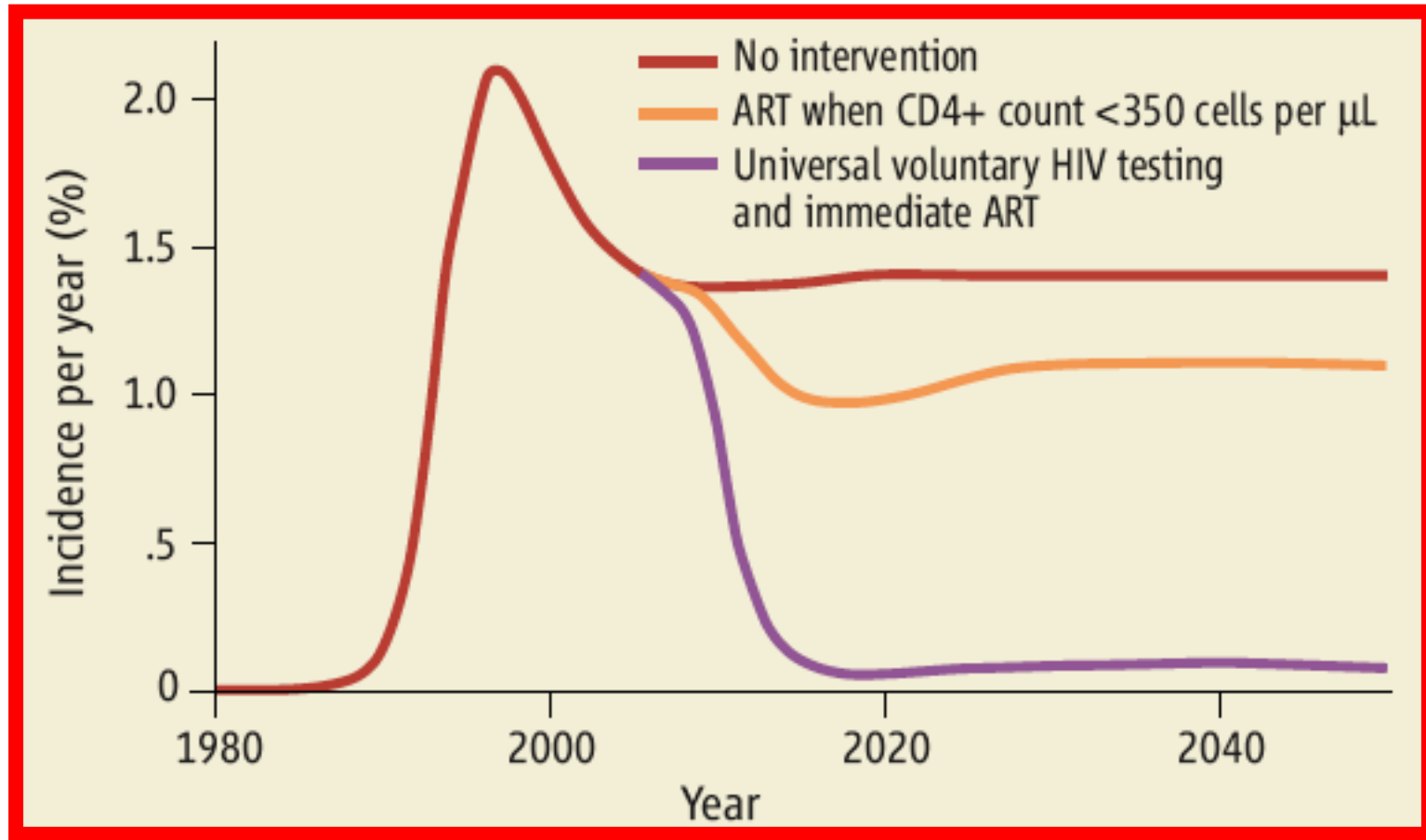
➤  **Universal voluntary HIV testing with immediate antiretroviral therapy as a strategy for elimination of HIV transmission: a mathematical model**

Reuben M Granich, Charles F Gilks, Christopher Dye, Kevin M De Cock, Brian G Williams



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Reducing R_0 impacts HIV Incidence

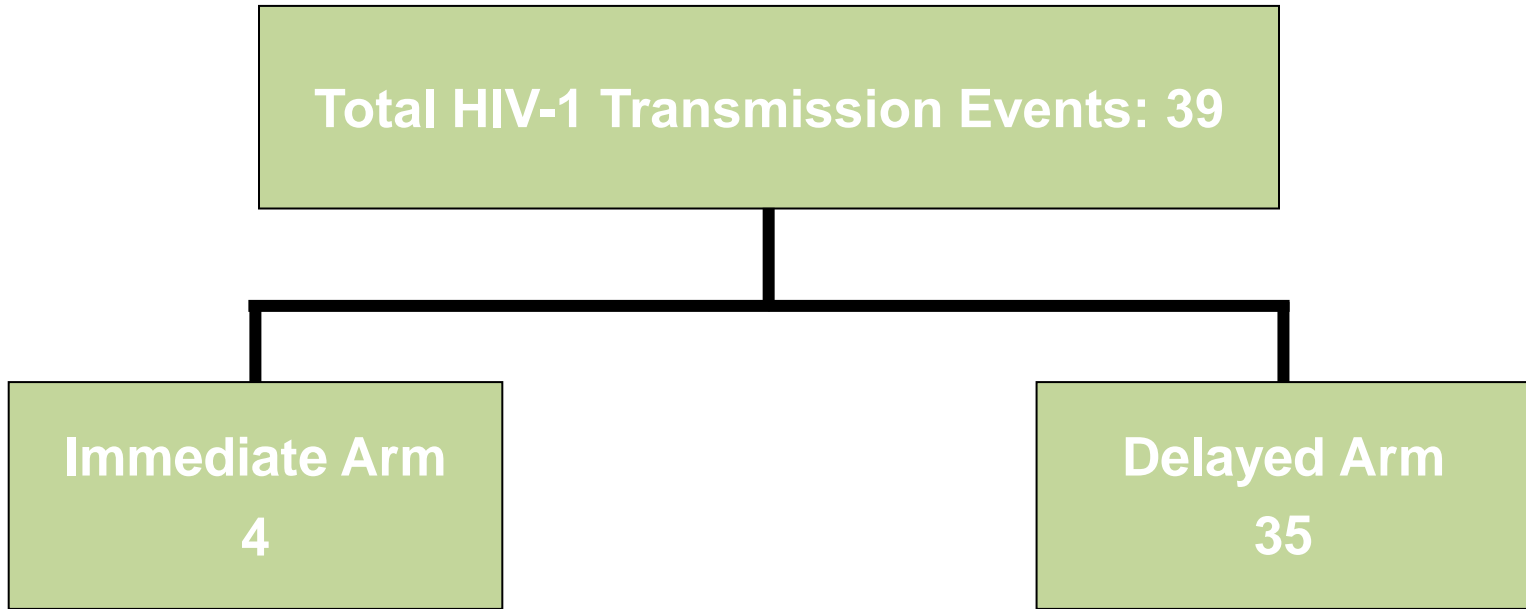


ORIGINAL ARTICLE

Prevention of HIV-1 Infection with Early Antiretroviral Therapy

Myron S. Cohen, M.D., Ying Q. Chen, Ph.D., Marybeth McCauley, M.P.H.,
Theresa Gamble, Ph.D., Mira C. Hossainipour, M.D.,
Nagalingeswaran Kumarasamy, M.B., B.S., James G. Halim, M.D.,
Johnstone Kumwenda, F.R.C.P., Beatriz Grinsztejn, M.D., Jose H.S. Rizzo, M.D.,
Sheda V. Godbole, M.D., Sanjay Mehendale, M.D., Surat Chariyalertsakul, M.D.,
Breno R. Santos, M.D., Kenneth H. Mayer, M.D., Irving F. Hoffman, P.A.,
Susan H. Eshleman, M.D., Estelle Kwowar-Manning, M.T., Lei Wang, Ph.D.,
Joseph Malihema, F.R.C.P., Lisa A. Mills, M.D., Guy de Bruyn, M.B., B.Ch.,
Ian Sanne, M.B., B.Ch., Joseph Eron, M.D., Joel Gallant, M.D.,
Diane Havlin, M.D., Susan Swindells, M.B., B.S., Heather Ribaudo, Ph.D.,
Vanessa Bharrar, M.D., David Burns, M.D., Taha E. Taha, M.B., B.S.,
Karin Nilsen-Saines, M.D., David Celentano, Sc.D., Max Essex, D.V.M.,
and Thomas R. Fleming, Ph.D., for the HPTN 052 Study Team¹

HPTN 052



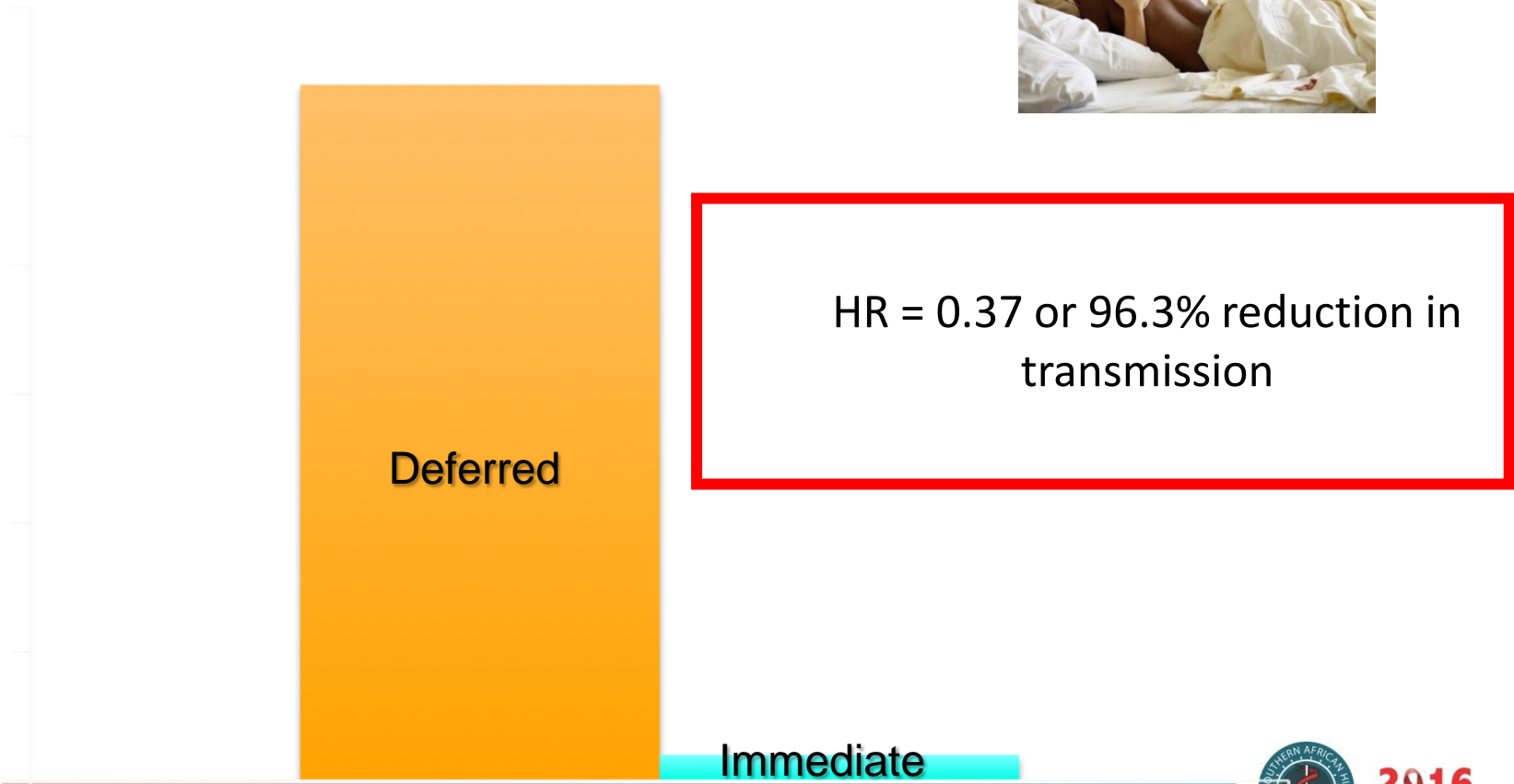
**96% Reduction
with Early ART**

$p < 0.0001$

Cohen, NEJM 2011;365:492-505



HPTN 052



90%

of all



living with HIV will
know their HIV
status

90%

of all



living with HIV will
receive sustained
antiretroviral
therapy

90%

of all



receiving
antiretroviral therapy
will have durable viral
suppression

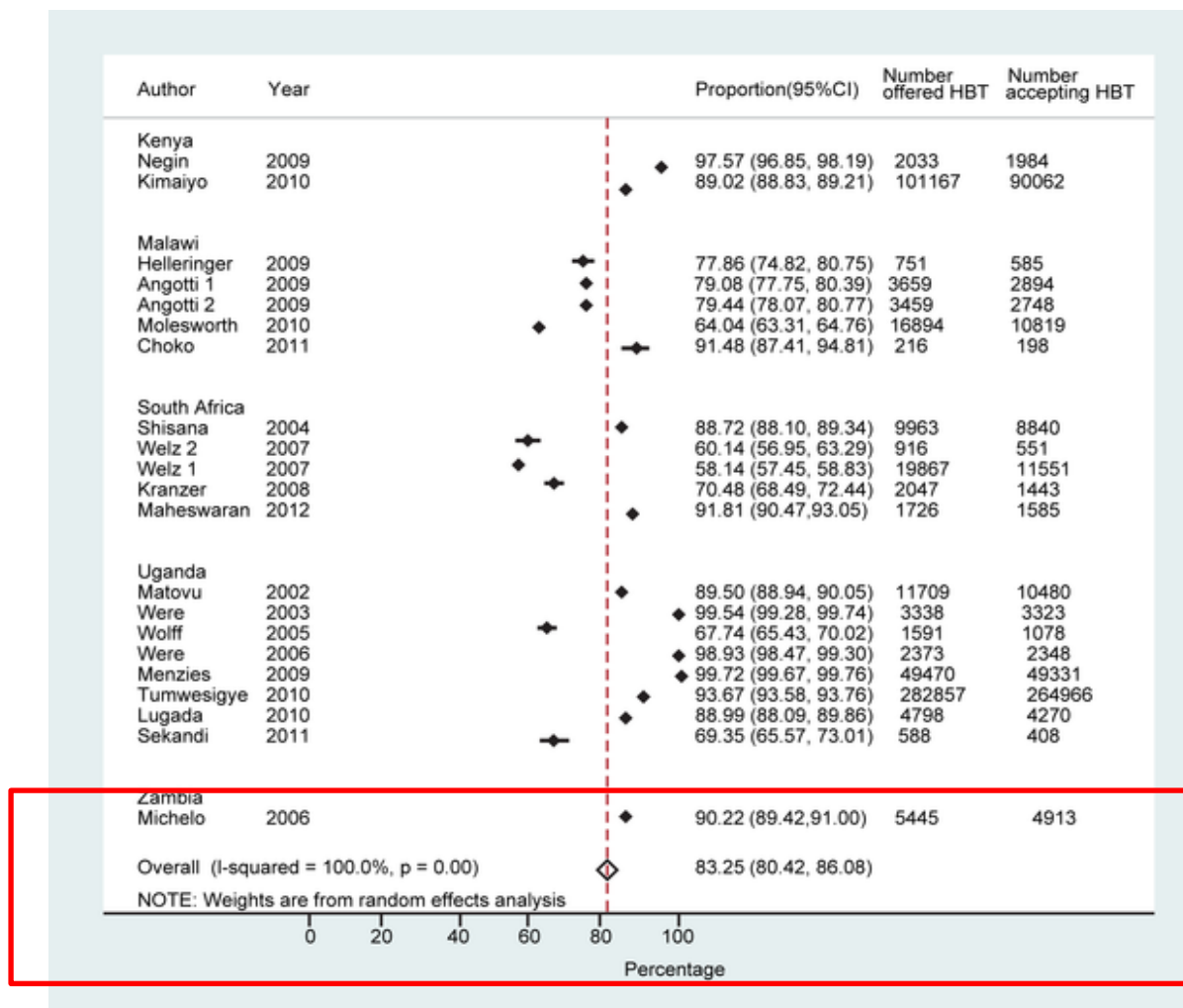
Testing (the first 90)

- Currently facility based
- Offered between 9am and 2pm
- PICT
- How often?
- Men are "left out"

What are the alternatives?

- Home based testing
- Self testing

Figure 2. Proportion accepting HBT.



Sabapathy K, Van den Bergh R, Fidler S, Hayes R, Ford N (2012) Uptake of Home-Based Voluntary HIV Testing in Sub-Saharan Africa: A Systematic Review and Meta-Analysis. *PLoS Med* 9(12): e1001351. doi:10.1371/journal.pmed.1001351

<http://journals.plos.org/plosmedicine/article?id=info:doi/10.1371/journal.pmed.1001351>

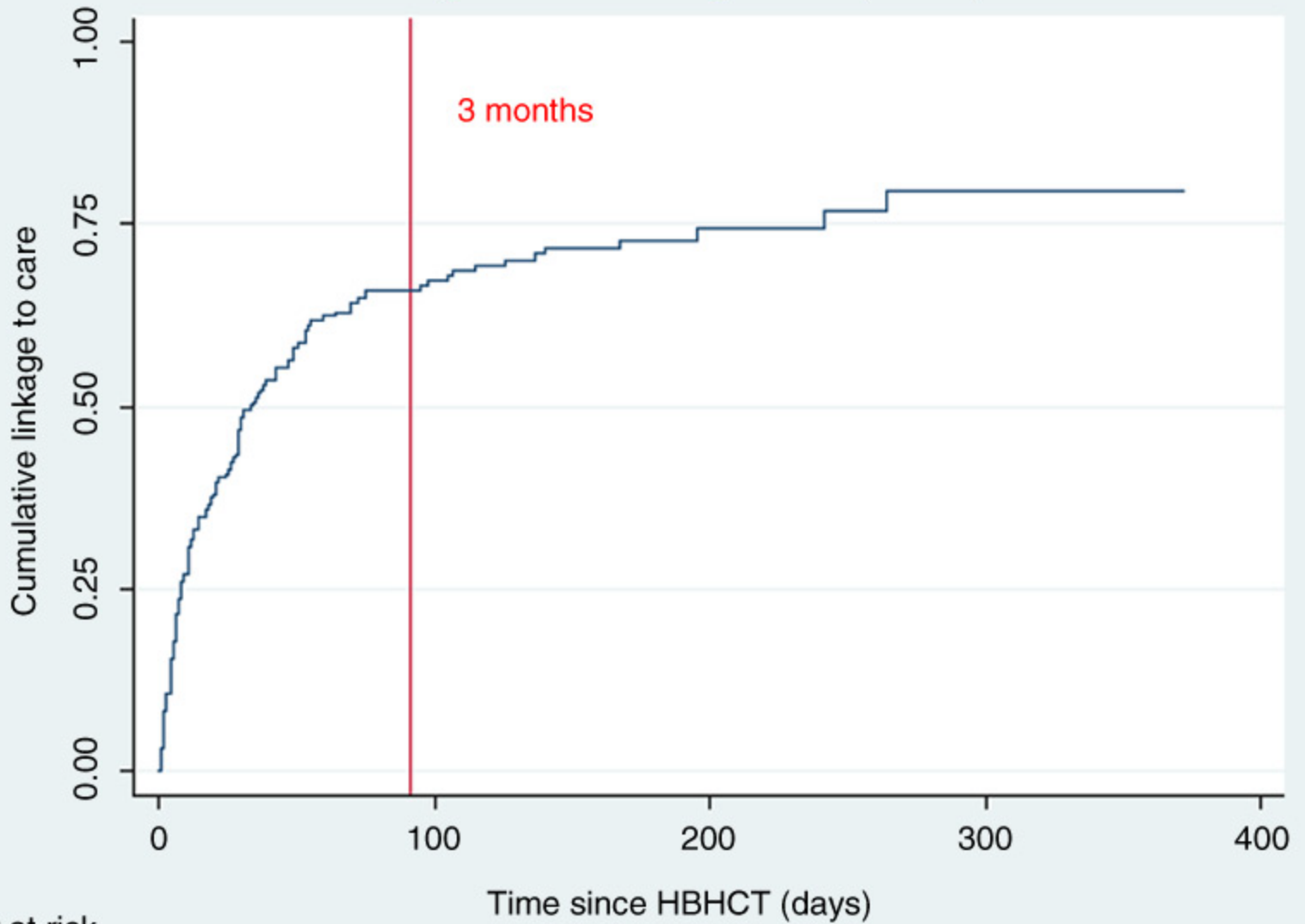
Research article

Linkage to care following a home-based HIV counselling and testing intervention in rural South Africa

Reshma Naik^{§,1,2,3}, Tanya Doherty^{1,4}, Debra Jackson⁴, Hanani Tabana^{1,5,6}, Sonja Swanevelder⁷, Donald M Thea^{2,8}, Frank G Feeley^{2,8} and Matthew P Fox^{8,9}

[§]Corresponding author: Reshma Naik, Population Reference Bureau, 1875 Connecticut Avenue NW Suite 520, Washington, DC 20009, USA. (reshnaik@gmail.com)

Linkage to care following HBHCT (N=196)



Number at risk

196

50

17

4

0

Self testing



Self testing



Self testing



WHO PREQUALIFICATION TEAM:
DIAGNOSTICS



World Health
Organization

WHO Prequalification: Sample Product Dossier for an IVD intended for HIV self-testing

SIMU™ self-test for HIV 120

PQDx5432-98-00

THE Manufacturing Company

DRAFT DOSSIER FOR PUBLIC COMMENT



2016


HIV self testing

- Research is needed
- Untrained users to be observed
- Can be sold in South Africa
 - Available on-line
 - In the airport

90% on treatment

- Linkage to care

Linkage to HIV Care and Antiretroviral Therapy in Cape Town, South Africa

Katharina Kranzer , Jennifer Zeinecker, Philip Ginsberg, Catherine Orrell, Nosindiso N. Kalawe, Stephen D. Lawn, Linda-Gail Bekker, Robin Wood

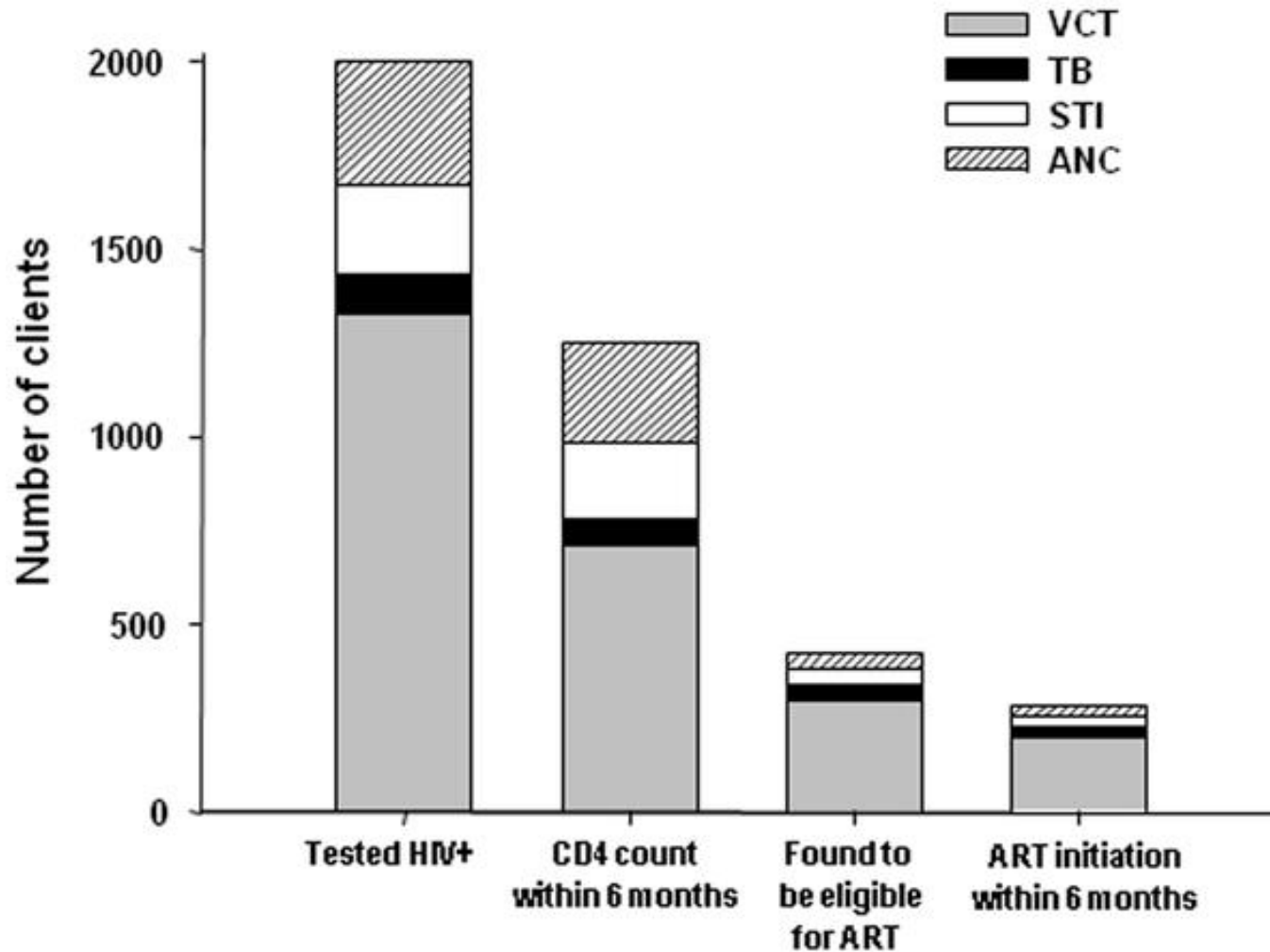
Published: November 2, 2010 • <http://dx.doi.org/10.1371/journal.pone.0013801>

Article 	Authors	Metrics	Comments	Related Content
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Figure 1. Number of clients testing HIV+, with timely CD4 counts, eligible for ART and initiating ART estimated using proportions from table 2.



Kranzer K, Zeinecker J, Ginsberg P, Orrell C, Kalawe NN, et al. (2010) Linkage to HIV Care and Antiretroviral Therapy in Cape Town, South Africa. PLoS ONE 5(11): e13801. doi:10.1371/journal.pone.0013801

<http://journals.plos.org/plosone/article?id=info:doi/10.1371/journal.pone.0013801>

What if we use scare tactics?

- Point of care CD4+ count

Wynberg E et al. *Journal of the International AIDS Society* 2014, 17:18809
<http://www.jiasociety.org/index.php/jias/article/view/18809> | <http://dx.doi.org/10.7448/IAS.17.1.18809>



Review article

Impact of point-of-care CD4 testing on linkage to HIV care: a systematic review

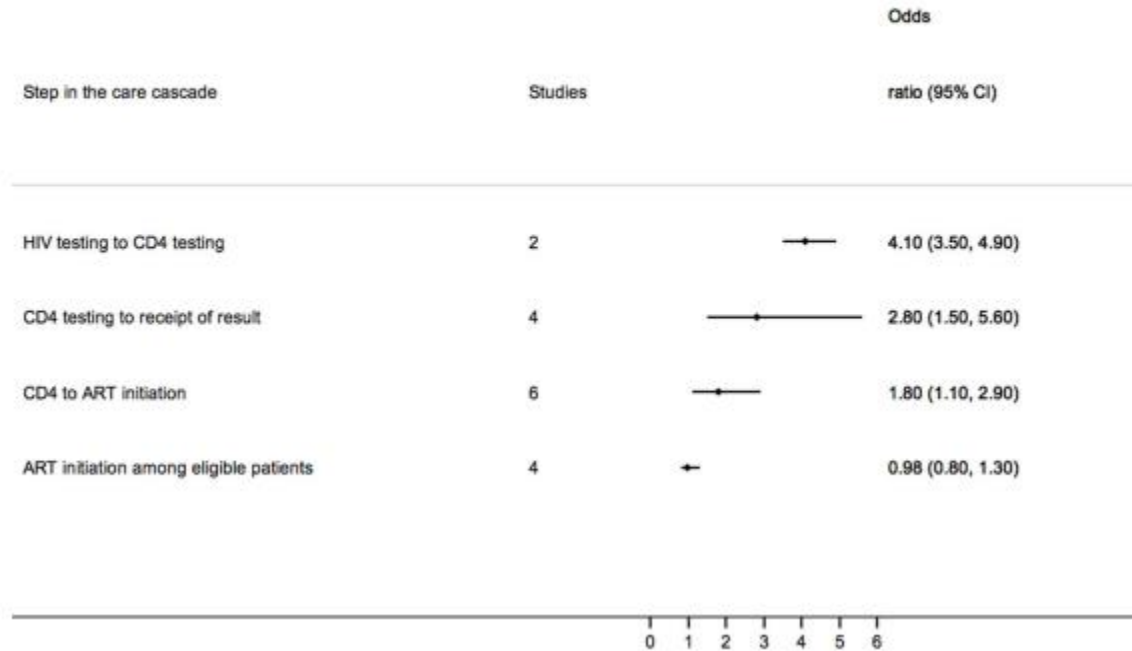
Elke Wynberg¹, Graham Cooke^{*1}, Amir Shroufi², Steven D Reid¹ and Nathan Ford^{*5,3}

³Corresponding author: Nathan Ford, HIV/AIDS Department, World Health Organization, 20 Avenue Appia, 1211 Geneva, Switzerland. Tel: +41 22 791 19 19. (fordn@who.int)

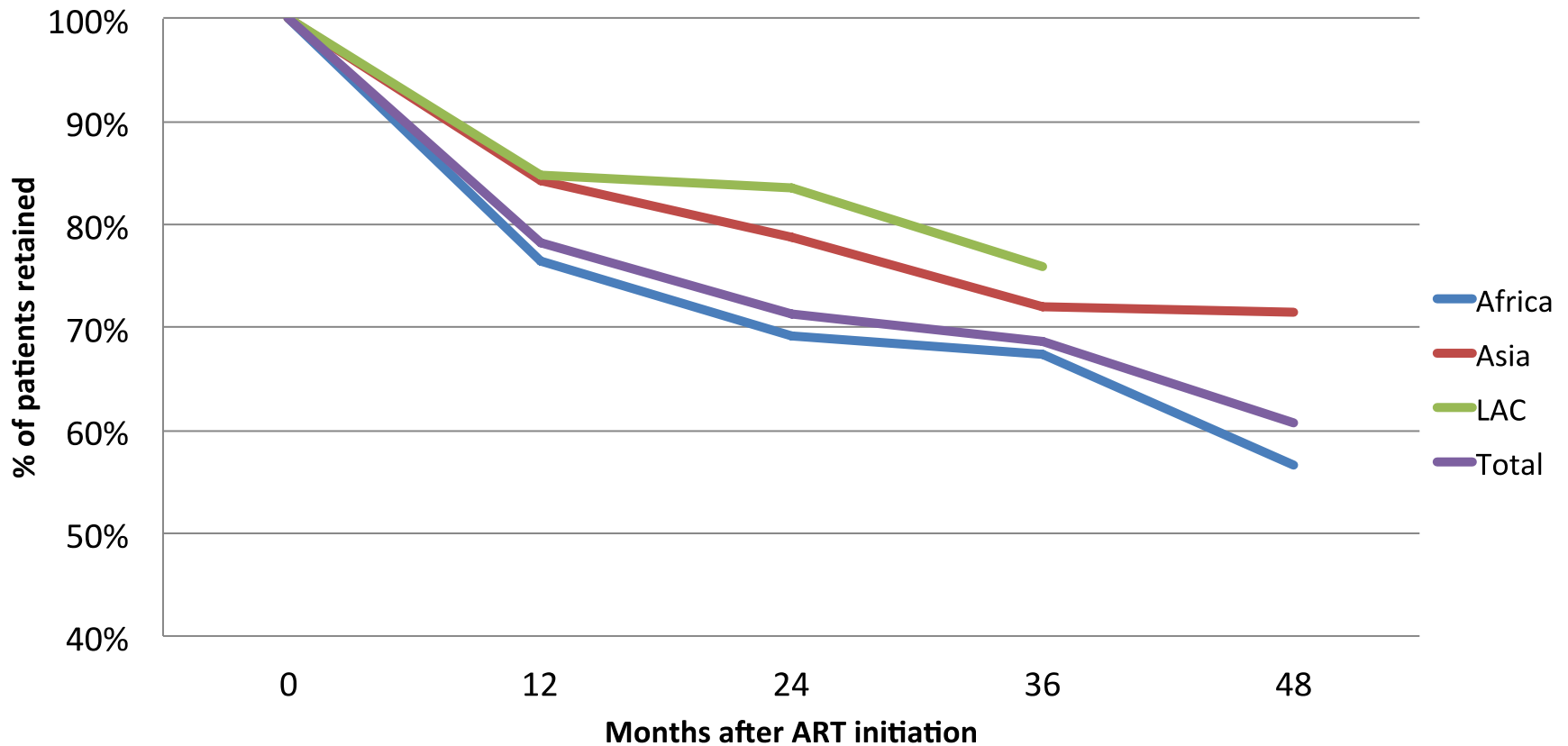
*These authors contributed equally to the work.



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Retention in care



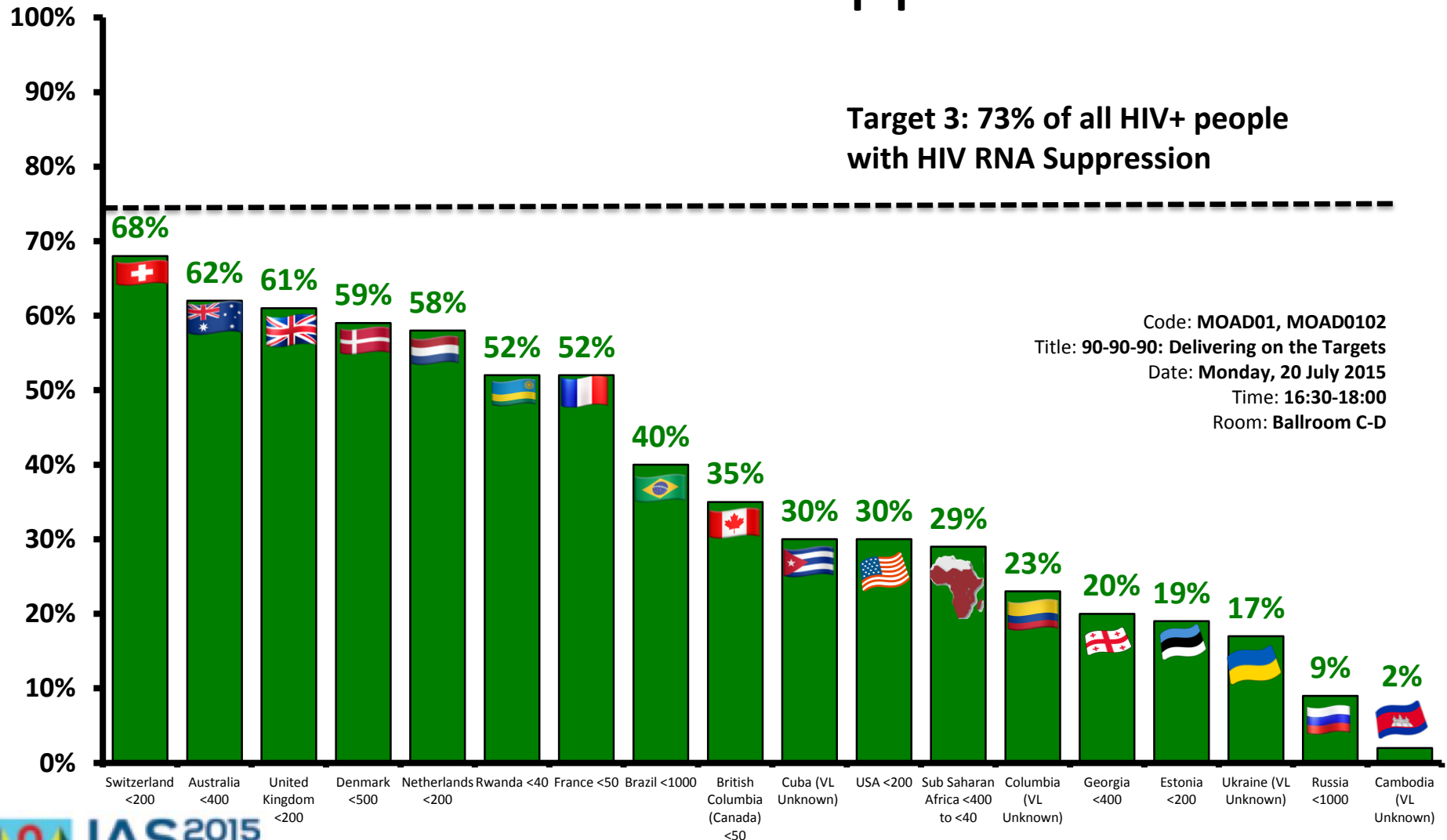
* Note: Y axis starts at 40%

Age retention at specified time points, by region*

Rosen S, Retention of Adult Patients on Antiretroviral Therapy in Low- and Middle-Income Countries: Systematic Review and Meta-analysis 2008-2013, J Acquir Immune Defic Syndr. 2015 May



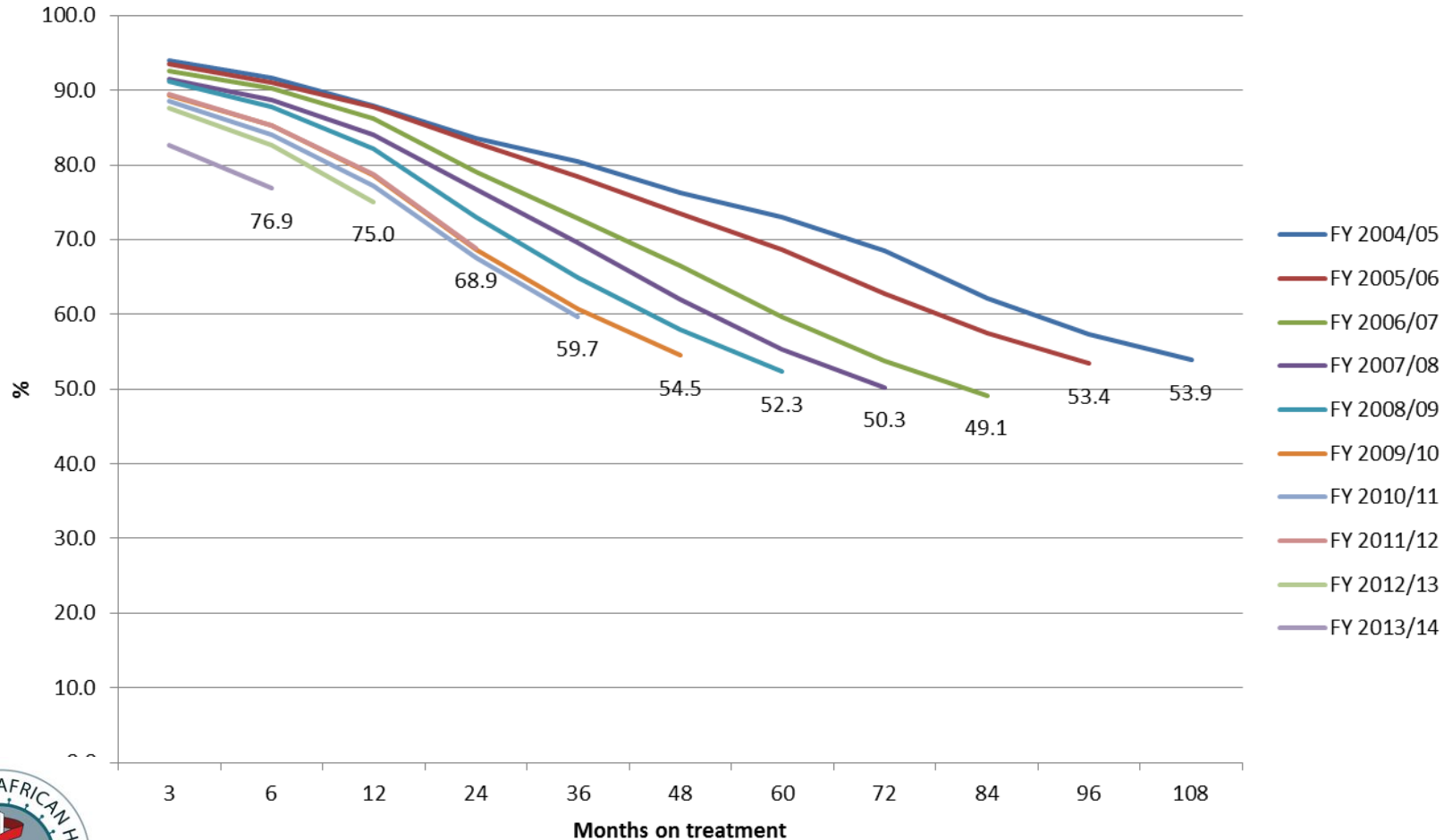
Third 90: Percentage of HIV+ people with HIV RNA suppression



Code: MOAD01, MOAD0102
 Title: 90-90-90: Delivering on the Targets
 Date: Monday, 20 July 2015
 Time: 16:30-18:00
 Room: Ballroom C-D

Retention in care

National: Percentage of adults remaining on ART, by duration and year started ART



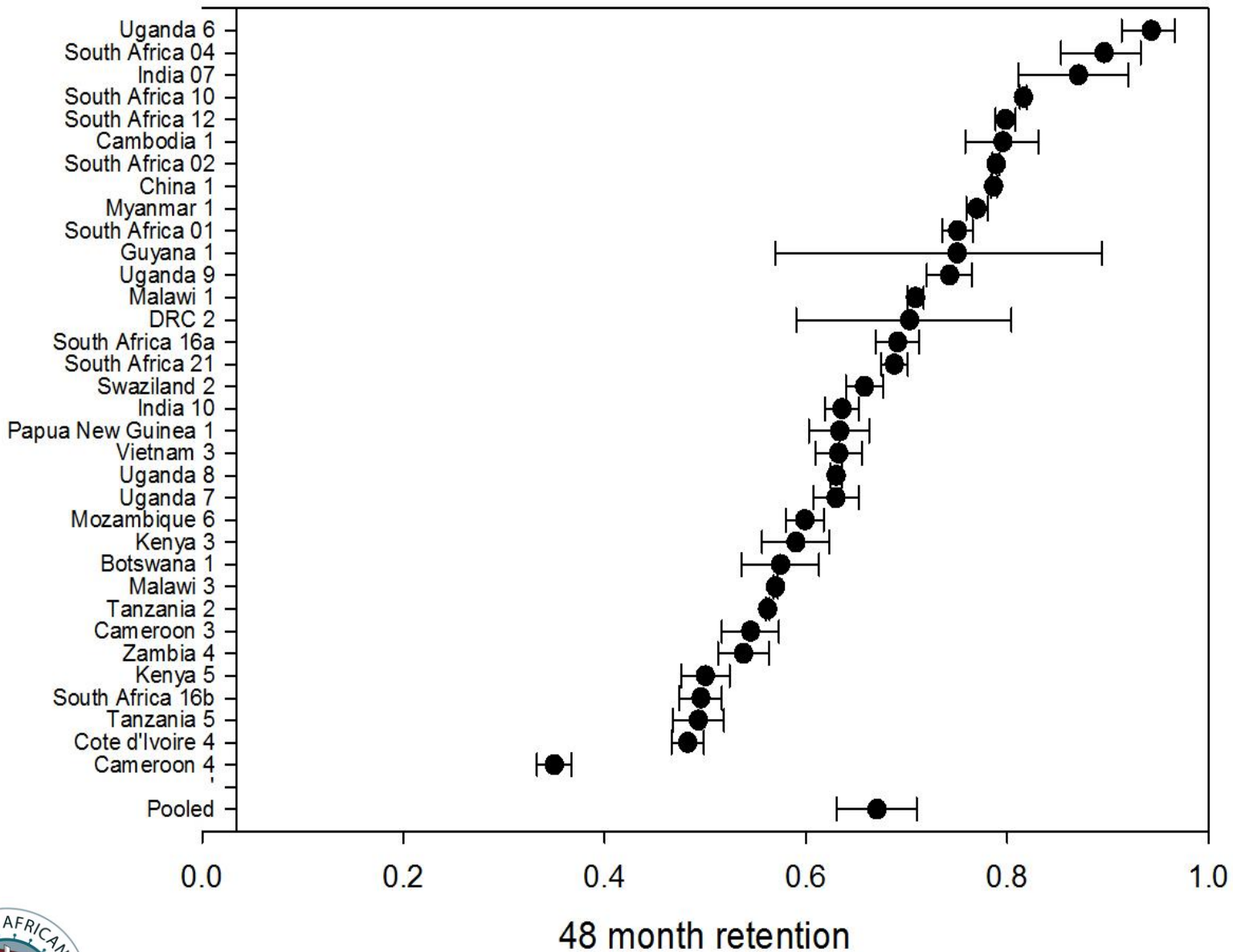
Consolidated National report covering monthly and quarterly ART data to end

14 Thanks: Andrew Boule



health

Department:
Health
REPUBLIC OF SOUTH AFRICA



~~48 month retention includes 48 month retention (sometimes interpolated)~~

shorts reporting beyond 48 months



SA data on VLs

- Thanks: Sergio Carmona, NHLS



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GROUPING: Quarter: **Q1 2015**

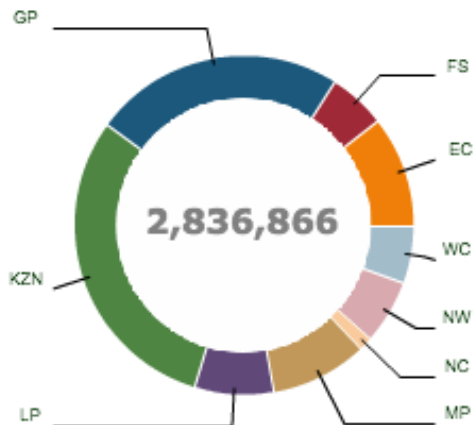


Summary indicators for CCMT M&E in SA - Adults

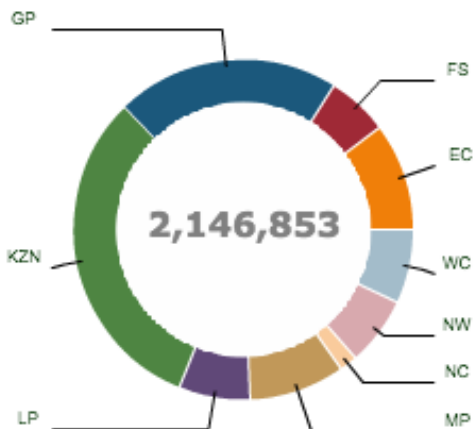
Period: from Q1 2012 to Q1 2015

Select Age Category: **Adults** Children <15 years

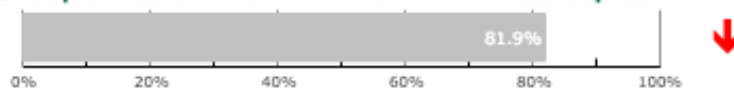
People on treatment (DHIS)



People with a VL test done in the last 12 months



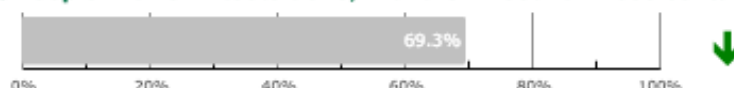
% People in care and on ART with a VL <= 1000 copies/ml



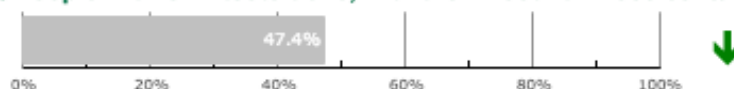
% People in care and on ART, who have a VL done at least annually



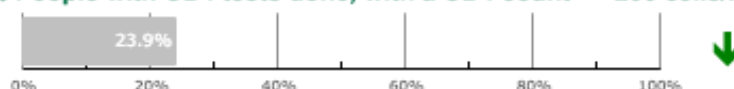
% People with CD4 tests done, with a CD4 count <= 500 cells/mm3



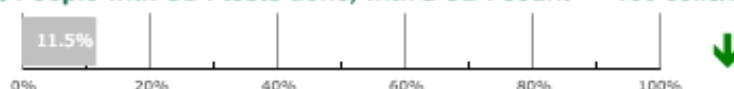
% People with CD4 tests done, with a CD4 count <= 350 cells/mm3



% People with CD4 tests done, with a CD4 count <= 200 cells/mm3



% People with CD4 tests done, with a CD4 count <= 100 cells/mm3



Our current first line

- TDF FTC and EFV
- Low barrier to resistance
- Unforgiving of the patient or the health care system
- What if we had a better one?

Can we treat our way out of the epidemic?

Not with our current testing strategy

Not with our current linkage to care

Not with our current first line



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