



Foreword:

The concept behind this newsletter is that anyone with 15 minutes to spare can learn about the work of SATuRN.

In this second issue of our newsletter we have included interesting news, blogs, reports, tweets, publications and training information produced by our network.

We hope you enjoy it and find it informative. We welcome any feedback about content or format.

Produced by: Tulio de Oliveira, Richard Lessells, Lungani Ndwandwe, Siva Danaviah, Astrid Treffry-Goatley, Justen Manasa, Cloete Van Vuuren & Chris Seebregts

Highlights:

Upcoming event: 7th Southern African HIV & TB Drug Resistance & Clinical Management Workshop, CTICC, 28-29 November 2012

Upcoming event: SA HIV Clinicians Society Conference, CTICC, 25-28 November 2012

Blog: Capturing Health in one Photo: a personal reflection

Report: SATuRN features on the WHO HIV drug resistance report 2012

Event: SATuRN meeting, presentations & tweet coverage at the XIX International AIDS 2012 Conference, Washington, USA

Manuscript: The tainted milk of human kindness

Brief: Blogs and news on our work



Blog: Zooming in on home-based health care givers in rural South Africa

Authors: Lungani Ndwandwe , Tulio de Oliveira – 2012-09-13

“We turned our lenses to focus on home-based health care givers in rural South Africa this month of July 2012. As part of the Art in Science project by the Wellcome Trust, we felt that in order to capture a comprehensive picture of health, home based care could not be ignored.”

Link: <http://www.bioafrica.net/blogs.php?id=17>

Blog: AIDS XIX 2012 conference: impressions of a South African researcher

Author: Siva Danaviah – 2012-09-12

“As a summary of my activities during the meeting, I was able to attend several interesting sessions regarding mother to child transmission, viral latency and of course the viral resistance and an excellent talk on HIV/TB co-infection. Below are a few of the highlights of my experience at AIDS2012..”



Link: <http://www.bioafrica.net/blogs.php?id=16>

News: Local centre proves 'surrogate' HIV infection

Zululand Observer – 2012-08-24



“The Africa Centre for Health and Population Studies, Zululand's HIV-AIDS research hub based near Mtubatuba, has revealed the first proven HIV surrogate transmission case in South Africa..”

Link: <http://www.bioafrica.net/news.php?id=41>

News: Life Technologies and SATuRN Collaborate to Increase Access to HIV Testing in Africa

The Wall Street journal – 2012-07-24

“NEW YORK - Life Technologies today announced a collaboration with the Southern African Treatment and Resistance Network (SATuRN) covering sequencing-based diagnostics for HIV patients in Africa.”



Links: <http://www.bioafrica.net/news.php?id=43>

News: HIV drug resistance is spreading in Africa, experts say

Los Angeles Times – 2012-07-23



“WASHINGTON (By Erin Lory, LA Times) - Scaling up the distribution of HIV medication over the last decade has vastly increased the number of people receiving treatment around the world. An estimated 8 million infected people received the antiretroviral drugs in 2011, compared to just 400,000 in 2003.”

Link: <http://www.bioafrica.net/news.php?id=36>

Blog: Capturing Health in one Photo: a personal reflection



We were driving down the dusty roads of rural Somkhele, just after taking pictures of a flamboyant tree and an enthusiastic sangoma (traditional healer) who had let us into her sacred, traditional, ancestral hut made of reed straw, which is reserved for the sick and those in need of answers and divine intervention. Zwelethu had posed a question to me; I suspected he was still trying to find the answer himself. **“What is the one thing that we could photograph that represents health?”** We played around with a few ideas, such as a jumping child, a clinic, a gym - we even mentioned a sports field.

It wasn't until after I had exhausted all my ideas that I realized that there is more to a picture than a memory in time. With a picture, one can tell a story and stir emotions of love, joy, peace and happiness or inspire feelings of hate, sadness, bitterness and sorrow.

I was born and grew up in this community that I now work for, but never before have I seen it as vividly as I have over the past two weeks. During this time, I have led the photographer Zwelethu Mthethwa in an extensive exploration of the region. He has taken photos of joy in poverty, life in sickness and hope in sorrow, and I have documented this journey with pen and camera. It has been an eye-opening experience and I have come to realize that in a community such as this one, the subject of health is a complex one. There is often a divide between Western and traditional medicine: two frequently conflicting views that share the same objective of health.

Authors: **Lungani Ndwandwe** , **Astrid Treffry-Goatley**

Link: <http://www.wellcomecollection.org/whats-on/art-in-global-health/zwelethu-mthethwa/first-impressions/capturing-health-in-one-photo.aspx>

Event: SATuRN meeting, presentations & tweet coverage at the XIX International AIDS 2012 Conference, Washington, USA.




WASHINGTON, 22-27 July 2012 – We have hosted a meeting, presented many talks and posters and tweeted a lot on the XIX International AIDS 2012 Conference.

In the main drug resistance session of the conference, we had two oral presentations. The first presented by Dr. Gert Van Zyl and the second by Justen Manasa.. Manasa's presentation on high-level HIV drug resistance in rural South Africa received great attention and was covered in the Los Angeles Times article entitled "HIV drug resistance is spreading in Africa, experts say"

We had a great number of SATuRN collaborators at this conference, some of our international collaborators presenting in the conference include Prof. David Katzenstein, Prof. Bob Shafer, Prof. Peter Godfrey-Faussett, Prof. Mark A. Wainberg, Prof. Amilcar Tanuri, Prof. Jeffrey Klausner and Prof. Anne-Mieke Vandamme.

We also had a large delegation from southern Africa, including among others Prof. Wolfgang Preiser, Dr. Carole Wallis, Dr. Cloete van Vuuren, Prof. Susan Engelbrecht, Dr. Ava Avalos, Dr. Tendani Gaolathe, Prof. Wendy Stevens, Prof. Maria Papathanasopoulos, Dr. Siva Danaviah and Dr (to be) Justen Manasa.

 **SATuRN**
drug_resistance

drug_resistance The Wall Street journal: Life Technologies and SATuRN Collaborate to Increase Access to HIV Testing in Africa
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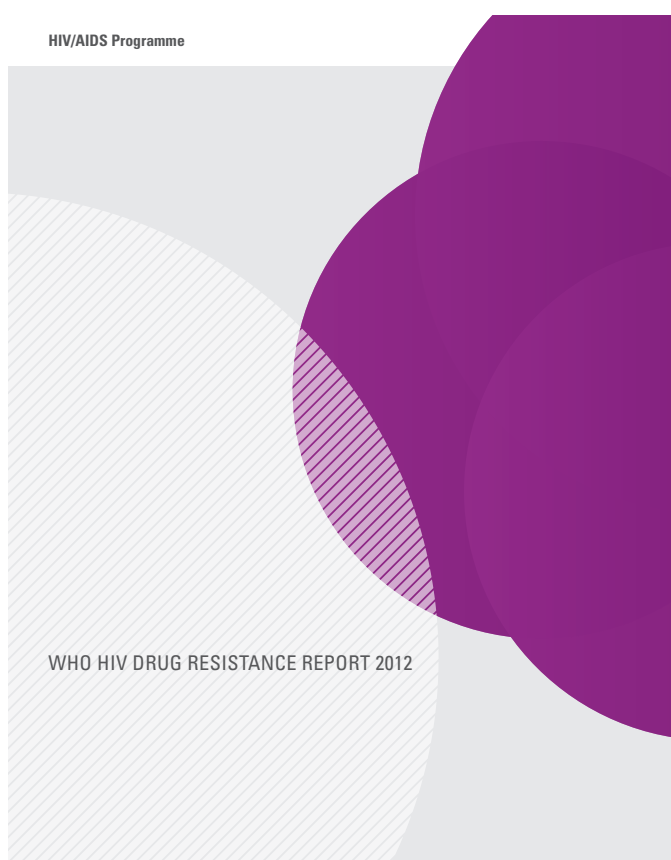
drug_resistance Positive blog from World Bank President Jim Kim about recent visit to SA: stoptb.org/webadmin/cms/p...
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 Join the conversation

Report: SATuRN features on the WHO HIV drug resistance report 2012



Publication details

Number of pages: 84

Publication date: July 2012

Languages: English

ISBN: 978 92 4 150393 8

“This report assesses the general levels of transmitted and acquired drug resistance in select geographical areas of low- and middle-income countries. It is based on two distinct data sources: surveys performed to assess transmitted and acquired drug resistance using standardized WHO methods (WHO surveys) and a broad systematic review of the published literature on transmitted and acquired drug resistance. Findings from the monitoring of early warning indicators of HIV drug resistance are also presented and discussed.”



Chapter 1 outlines the objectives of the report, discusses the determinants of HIV drug resistance, and describes the WHO global HIV drug resistance surveillance and monitoring strategy.

Chapter 2 provides an overview of HIV drug resistance in high-income countries.

Chapter 3 discusses a systematic review and meta-analysis of the published literature on levels and trends of transmitted drug resistance in select areas of low- and middle-income countries and presents data from surveys of transmitted drug resistance conducted according to standardized WHO methods.

Chapter 4 discusses a systematic review of levels of acquired drug resistance in patients failing first-line antiretroviral therapy in select low- and middle-income countries, and presents data from surveys of acquired drug resistance conducted according to standardized WHO methods.

Chapter 5 presents findings from the monitoring of early warning indicators of HIV drug resistance.

Chapter 6 discusses overall conclusions.

Link: <http://www.who.int/hiv/pub/drugresistance/report2012/en/index.html>

Manuscript: The tainted milk of human kindness

Publication details

Publication date: August 2012

Lancet, 380:702 (2012)

Authors: Goedhals D, Rossouw I, Hallbauer U, Mamabolo M, de Oliveira T.

In September, 2009, a 74-day-old infant presented to a local hospital in Bloemfontein, South Africa, in broncho- pneumonia related respiratory distress. She appeared pale, cyanosed, and had palpable axillary lymph nodes, hepatomegaly, and oropharyngeal candidosis. She had received all scheduled vaccinations and had been exclusively breastfed. Cytomegalovirus was isolated from a respiratory sample by shell vial culture, and a paired blood sample showed a cytomegalovirus viral load of 12 600 copies per mL. She was positive for HIV by ELISA and DNA PCR. However, the baby's mother said that she tested HIV negative during pregnancy, which was confirmed by fourth generation ELISA test. The baby's CD4 cell count was 2189 cells per mL (40% lymphocytes) and antiretroviral therapy was started. The mother reported that her sister had breastfed the baby intermittently from 6 weeks of age. The sister and her 5-month-old child were subsequently found to be HIV positive by ELISA and DNA PCR. Laboratory records confirmed the sister's positive HIV status in February, 2008, excluding recent seroconversion. At final follow-up in April, 2010, our patient was well with an undetectable HIV viral load.

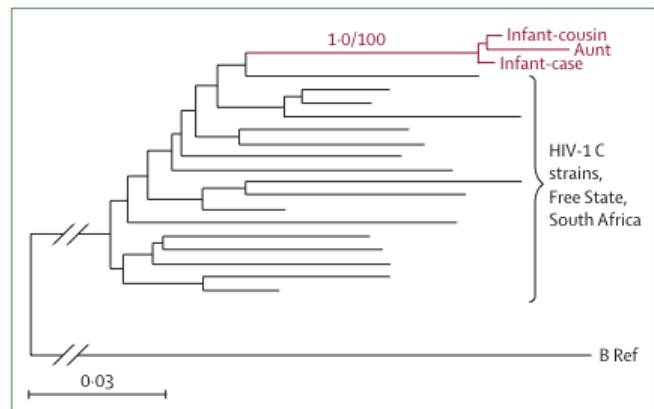


Figure: HIV-1 Consensus Majority Rule Bayesian Tree showing posterior probabilities for the internal branch of the tree that connect the three case sequences. Scale bar units are nucleotide substitutions per site. Sequences from the transmission case are shown in red; the tree is rooted with the HIV-1 subtype B reference sequence; the sub tree phylogeny contains 17 of remaining 107 sequences that are the most similar HIV-1 subtype C sequences in the Free State.

Plasma samples from the sister and both infants were used for partial sequencing of the HIV pol gene with the TRUGENE HIV-1 genotyping kit (Siemens Healthcare Diagnostics, Tarrytown, NY, USA). We analysed the data with the same approach used to identify the source of the nosocomial HIV-1 CRFO2_AG outbreak in the Al-Fateh Hospital, Libya.¹ We collated 100 HIV-1 reference strains from the Free State Province, South Africa, closely related to the three case sequences, and then estimated and assessed phylogenies using algorithmic, Bayesian, and maximum-likelihood methods. The case sequences form a well-supported monophyletic cluster within the HIV-1 subtype C clade. The linkage is supported with 100% bootstrap in the algorithm and maximum-likelihood methods and with 100% posterior probability in the Bayesian phylogenies.

Link: <http://www.bioafrica.net/publications.php?pubid=58>

SATuRN

Working together to
implement HIV/TB
resistance testing for
clinical care, research
& surveillance in
Africa

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Tulio de Oliveira

*Africa Centre for Health and
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ABOUT:

The workshop is targeted at clinicians, virologists, nurses, medical students and researchers working in the public and private sector who are currently involved in the treatment of patients with ARVs and anti-TB medication in Southern Africa.

APPLICATION DEADLINE:

1 October 2012

WORKSHOP DATES:

28-29 November 2012

WORKSHOP REGISTRATION IS FREE*

* However applicants are responsible for all travel and accommodation costs. A limited number of travel sponsorships will be available.

Please submit application forms to:

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7th Southern African HIV / TB Drug Resistance & Treatment Monitoring Workshop



**Cape Town International Conference Centre (CTICC)
28* and 29 November 2012**

(* as part of SA HIV Clinicians Society Conference 2012)

SPEAKERS:

Anne-Mieke Vandamme Rega Institute, BE

Catherine Orrell UCT, ZA

Chris Seebregts MRC, Jembi, ZA

Cloete Van Vuuren UFS, ZA

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Tulio de Oliveira Africa Centre, ZA

William Bishai K-RITH, ZA

SPONSORS: the European Commission (EC) program at the South African MRC, CDC/PEPFAR program at the Africa Centre/CAPRISA and at the SoPH/ UWC. The workshop is organized by the Africa Centre, UKZN, Medical Research Council (MRC), University of the Free State and University of Pretoria.

Application forms at: <http://www.bioafrica.net/saturn/>

SATuRN's partners featured publications!



Gender Differences in Survival among Adult Patients Starting Antiretroviral Therapy in South Africa: A Multicentre Cohort Study

Cornell M, Schomaker M, Garone DB, Giddy J, Hoffmann CJ, Lessells R, Maskew M, Prozesky H, Wood R, Johnson LF, Egger M, Boule A, Myer L For IeDEA-SA, PLoS Med (2012), 9(9): e1001304.



Task shifting of antiretroviral treatment from doctors to primary-care nurses in South Africa (STRETCH): a pragmatic, parallel, cluster-randomised trial.

Fairall L, Bachmann MO, Lombard C, Timmerman V, Uebel K, Zwarenstein M, Boule A, Georgeu D, Colvin CJ, Lewin S, Faris G, Cornick R, Draper B, Tshabalala M, Kotze E, van Vuuren C, Steyn D, Chapman R, Bateman E. Lancet (2012), 380:889-98



The tainted milk of human kindness

Goedhals D, Rossouw I, Hallbauer U, Mamabolo M, de Oliveira T, Lancet (2012), 380:702.

Training course title, location and date

Nov 2012 **SA HIV Clinicians Society Conference 2012**, Cape Town International Convention Centre (CTICC), Cape Town, **South Africa**, 25-28 November 2012

Nov 2012 **7th Southern African HIV / TB Drug Resistance & Clinical Management Workshop**, Cape Town International Convention Centre (CTICC), Cape Town, **South Africa**, 28-29 November 2012

For more information on how to participate in SATuRN activities please contact:

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