



Rapid HIV Testing in Resource Limited Settings

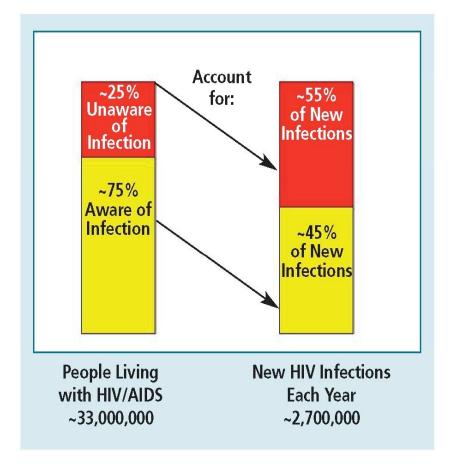
General Public Health Trends/Dynamics

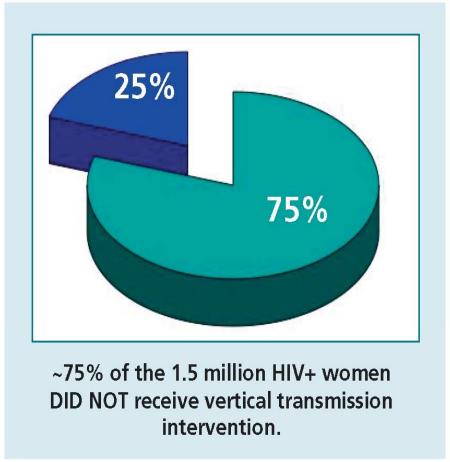
- Up to one-half to one-third of people who consent to a test still do not return to receive the results
- In 2007 only 18% of the worlds pregnant women were offered HIV tests
- Most settings are resourced-constrained and remote
- The challenge is to increase the number of people being tested
 - "Know your status"

The potential solution falls on rapid testing



The Challenge.....







The Goal – PMTCT

- Use rapid tests to identify HIV+ women <u>early</u> and connect them to care
- Early care reduces risk of MTCT to <2%!
- Use rapid tests to identify undiagnosed HIV cases in L&D and intervene to reduce transmission.
 - Treat mother with ARVs during pregnancy, labor and delivery
 - Treat **baby** with ARVs within
 12 hours of birth.



Sources: 1 Revised Recommendations for HIV Testing in Adults, Adolescents and Pregnant Women in Healthcare settings, MMWR 9/22/2006/Vol. 55/no. RR-12. 2 ACOG Committee Opinion, No. 304 11/2004



VCT & OraQuick

- Speed of the test (20mins)
- Client is informed of test result during visit
- Allows pre-test and post-test councilling
- No sophisticated infrastructure required
- Do not require highly trained staff
- Cost effective





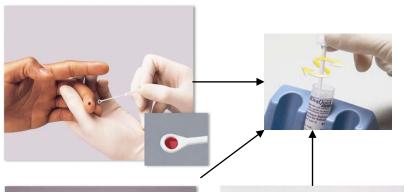
So let's take the test.....





Oral Fluid

 Swab completely around the upper and lower gums one time around.



Fingerstick

- Clean finger with alcohol. Let air dry.
- -Stick. Wipe away the first drop.
- Collect with Loop. Mix in Developer.





Plasma or venipuncture blood

- Collect into EDTA, Sodium Heparin, or Sodium Citrate.
- -Collect with Loop. Mix in Developer.



Test Development



 Insert the device into the Developer Vial.

- Pink fluid travels up Result Window.
- Read results between 20 and 40 minutes.



Test Interpretation

Negative Test



NON-REACTIVE

- Line in C Zone
- No Line in T Zone
- HIV-1 and HIV-2 antibodies were not detected in the specimen.

PRELIMINARY POSITIVE

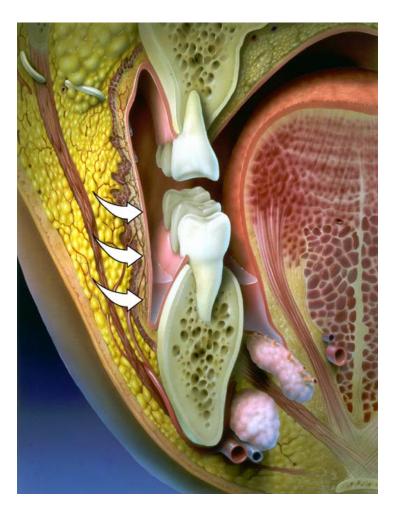


REACTIVE

- Line in C Zone
- Line in T Zone
- HIV-1 and/or HIV-2 antibodies have been detected in the specimen.



This is an Oral Fluid Test



Rapid-format test that detects HIV antibodies in oral mucosal transudate (OMT)

OMT contains high concentration of IgG antibodies.



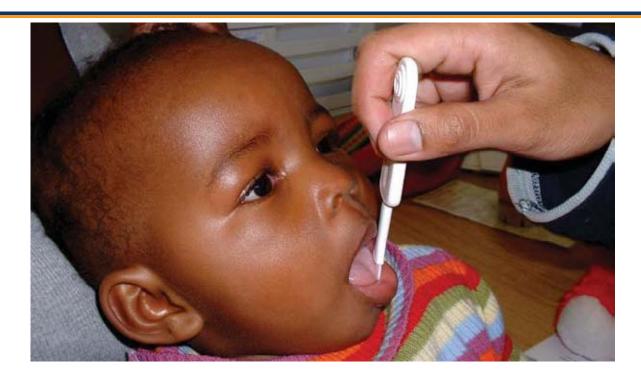
OraQuick ADVANCE® HIV-1/2 Antibody Test

- FDA-Approved/ CE Marked
- WHO Evaluated
- Laboratory Accuracy >99% with Oral Fluid Convenience
- Break Down Constraints to Large Scale Testing Initiatives
 - Poor infrastructure / limited capacity
 - Limited availability/access to healthcare professionals
 - Offer decentralized, scaleable model
- Stable at temps of 2-30°C No cold chain requirement.





South Africa



Soweto South Africa 2004 – 245 children exposed to HIV

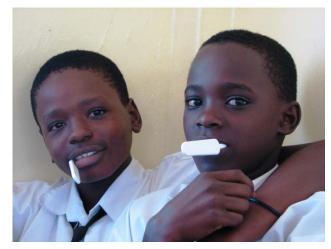
Sensitive and Specificity of 100% compared to ELISA (standard)

- Painless, safe, easy to use, affordable and offers instant results (Dr Vardas)



Africa - Tanzania

- Prevalence Testing Campaign – Moshi School Systems
- Joint Collaboration w/ CDC (2005)
- Results showed up to 30% HIV prevalence in certain populations









Madagascar

- Mother and Child Wellness Weak 2007
- OraQuick Targeted for use in limited resource settings by Malagasy Government
- Front line of the National Tender used across the country in Mobile VCT, VCT and PMTCT settings





Latin America - Mexico

- 'A Test of Love' PMTCT Campaign w/ Project Hope
- Screened 2000 pregnant women
- Not one baby born w/ HIV





Asia – India - 2007

- Rapid oral fluid-based point-ofcare HIV testing: applicability in developing countries by Dr. Nitika Pant Pai
- "Oral Tests can help greatly to expedite diagnosis,"
- "Use of oral fluid test in labor and delivery settings can expedite delivery of interventions for reducing perinatal transmission"





The Goal – PMTCT

- Use rapid tests to identify HIV+ women <u>early</u> and <u>connect them to care</u>
- Early care improves mothers outlook and reduces risk of MTCT to <2%!
- Use rapid tests to identify undiagnosed HIV cases in L&D and intervene to reduce transmission.



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THANK YOU