

# Designing & Delivering School-Based Programs to Reach Large Populations



Rhulangane Mungwete, MA  
Eleanor Maticka-Tyndale, PhD  
Oluwemimo Jayeoba, MD, MA



**DFID**





# Background

- Sub-Saharan Africa is home to roughly 63% of the global HIV infections
- Kenya is among the top 10 countries globally for HIV prevalence
- School-based programs are effective in raising knowledge, shifting attitudes, and changing some HIV risk behaviors ( Gallant & Maticka-Tyndale 2004; Kirby et al 2006; 2010) .




- HIV program evaluations are mostly small-scale, typically in one region (or even a small number of villages or schools) in a country.

BUT

- National programs are needed to combat HIV

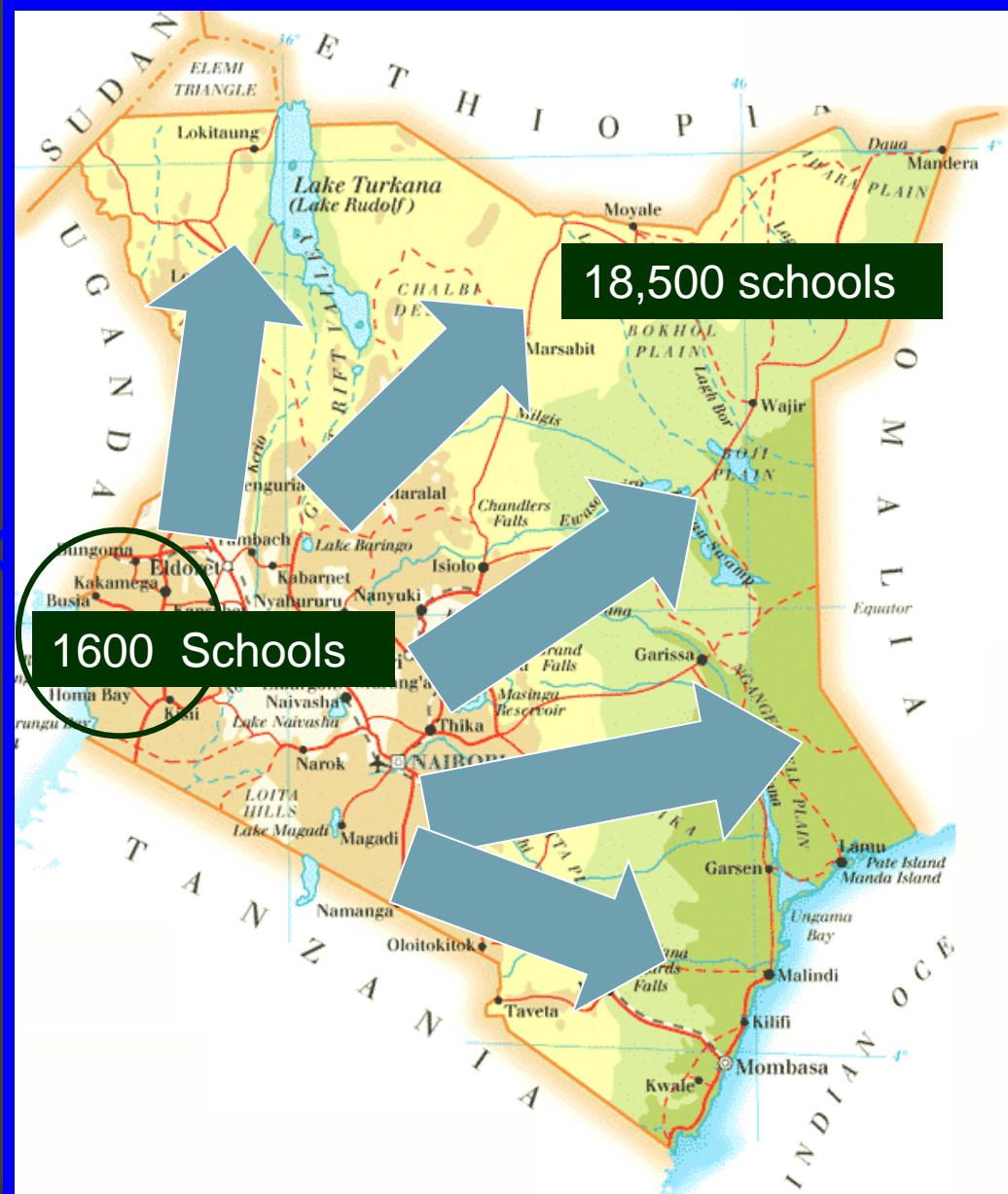
### The Question

- Are models used on a small-scale effective at the national level?



## Primary School Action for Better Health (PSABH)

- **Designed** by CfBT in collaboration with MoE, Kenya and sponsored by DFID, UK
- **Target:** Upper primary students (Gr 6 & 7)
- **Purpose:** Reduce HIV risky behavior. In primary grades through delaying intercourse
- **Began** in 1600 schools in Nyanza Province with 10% used in RCT evaluation
- **Goal:** national delivery to 18,500 schools





# This presentation

Will the impact demonstrated in Nyanza Province be replicated in regions with different socio-geographic, economic, political, and cultural profiles?



# Data Collection

- Repeated cross-section surveys were administered to students in three waves:
    - pre program (2004)
    - 10 months post program initiation (2005)
    - 22 months post program initiation (2006)
- Using pre- and 22 month data for this presentation
- 20-22 schools randomly selected in each of 5 regions (N=110) where PSABH was scheduled to be delivered in 2005.
  - The five regions included urban and rural; richer and poorer; diverse ethnicities



# Sample Characteristics

- N= 26,461 pupils; 110 Schools
- Standard 6: 51%, Standard 7: 49%
- Age 11-16 years (median = 13)
- 89% of the total sample size is Christian
- Females: 52% and Males: 48%



Table 1: OLS regression coefficients for program and dose effects on knowledge (fact and myth)

	Factual Knowledge		Myth Rejection	
	Boys	Girls	Boys	Girls
Program Effect	.248 *	.196	-.699***	-.985***
Dose Effect	.274***	.488***	-.733***	-.635***

\* $p < 0.05$ ; \*\* $p < 0.01$ ; \*\*\* $p < 0.001$

Ethnicity, age, region, religion were controlled. Each column represents separate regression.





Table 2: Logistic regression adjusted odds ratios for program and dose effects on attitudes towards sexual restraint and HIV

	I can say 'no' to sex		You should <u>not</u> sit next to someone in school who has HIV or AIDS (reverse coded)		Attitude toward testing If someone thinks they are infected with HIV, they should go for a test	
	Boys	Girls	Boys	Girls	Boys	Girls
Program Effect	1.965***	2.995***	2.326***	2.813***	1.609***	2.381***
Dose Effect	1.752***	2.497***	1.512***	1.857***	1.800***	2.057***

\*p<0.05; \*\*p<0.01; \*\*\*p <0.001

Ethnicity, age, region, religion were controlled. Each column represents separate regression.



Table 3: Logistic regression Adjusted Odds Ratios for program and dose effects on actions to resist sex

	In the past three months, have you refused to play sex when someone wanted you to? (no=0; yes=1)		In the last month, have you chosen not to go somewhere to avoid playing sex? (no=0; yes=1)	
	Boys	Girls	Boys	Girls
Program Effect	1.226*	1.604***	1.083	1.373*
Dose Effect	1.332***	1.509***	1.191**	1.375***

\*p<0.05; \*\*p<0.01; \*\*\*p <0.001

Ethnicity, age, region, religion were controlled. Each column represents separate regression.



Table 4: Logistic regression Adjusted Odd Ratio for program and dose effects on sexual behavior

	Have you, yourself, ever played sex? (yes=0; no=1)		Have you played sex in the last three months? (yes=0; no=1)	
	Boys	Girls	Boys	Girls
Program Effect	1.126	0.588**	1.095	1.399
Dose Effect	1.093	1.222*	1.052	1.356

\*p<0.05; \*\*p<0.01; \*\*\*p <0.001

Ethnicity, age, region, religion were controlled. Each column represents separate regression.



# Discussion

- The evaluation results in 5 regions of Kenya were similar to those in the original Nyanza region, with the exception of sexual behavior.
- What happened with sexual behavior?
  - Knowledge and attitudes are easier to change than sexual behavior
  - NYANZA: 45-46% were sexually active before the program, 34% after 18 months in the program
  - 5 REGIONS: 29% of males and 9% of females were sexually active before the program. Lower rates are harder to make even lower; perhaps ethnic or other effects.



# Conclusion

- Results show a replicable impact from Nyanza to the rest of the country on knowledge, attitudes & actions supporting sexual restraint.
- Further studies are needed on youth sexual behavior
- MoE and DFID implemented national delivery.
- For further information about the PSABH program and related publications, see: [www.psabh.info](http://www.psabh.info)



# This project was made possible by the work and support of :

**Head teachers, teachers, community leaders, zonal inspectors and pupils**

## Funding Bodies

Dept. for Int'l Development (DFID), UK  
1998 - 2007

## MoEST

Kenya Institute of Education  
Dept. of Policy & Projects  
Field Services/AIDS Control Unit  
Inspectorate

## Nutrition & Health Unit

## Steadman Research Services Inc.

Carol Nkatha      Rose Waithaka  
                                 John Ouna

## CfBT Kenya

Mary Gichuru      Janet Wildish

## Lead Training Team

Daniel K. Koiluk	James L. Ole Mpilei
Dominic Githuka	Jane N. Bota
Eliud Onynago Owino	Joseph Ngure
Elizabeth M. Ngala	Josephine Ondieki
Francis P. Origa Ogello	Lily Keleyo
Helen A. Owino	Meggie Muyalah
Mwaura Wanjohi	Phoebe Okango
Titus K.M. Tumbo	

## Univ of Windsor Researcher & Assist.

Melanie Gallant	Chris Brouillard-Coyle
Dan Holland	Karen Metcalfe
Rhulangane Mungwete	Oluwemimo Jayeoba
Eleanor Maticka-Tyndale	

