

# Adaptation of Immunization's Reaching Every District (RED) Approach Improves Uptake of and Retention in PMTCT Services in Bondo District, Kenya

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## Background

- Globally, Kenya is among the 22 countries that collectively account for 90% of pregnant women living with HIV.
- Estimated number of HIV-positive pregnant women per year: 100,000.
- Estimated number of children infected with HIV yearly: 40,000 (assuming no PMTCT interventions).
- Estimated number of babies born with HIV with the current interventions: 16,000 by 18 months of age (estimated 16% MTCT rate).
- Kenya has expanded PMTCT services from 2,000 service settings in 2007 to 4,397 in 2011.
- However, gaps in access, retention, quality and coverage remain.
- Other challenges include:
  - Less efficacious regimens still in wide use (33% of HIV+ pregnant women received single-dose Nevirapine)
  - Lack of integration of PMTCT services with reproductive health and family planning services
  - Loss to follow-up of women who do not return to the ANC to get their HIV test results
  - Lack of integration of early infant diagnosis in the MCH continuum
- Innovative program solutions were urgently needed to address these gaps.
- The USAID/MCHIP program piloted an adaptation of immunization's Reaching Every District (RED) approach in Bondo district of Nyanza Province in Kenya, East Africa.

## Objectives

- To improve the quality and uptake of PMTCT services by integrating along the maternal, neonatal and child health (MNCH) continuum of care using an adaptation of the RED approach.
- To increase longitudinal follow-up of HIV-positive women and HIV-exposed infants via an integrated health systems strengthening approach.

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## RED Approach

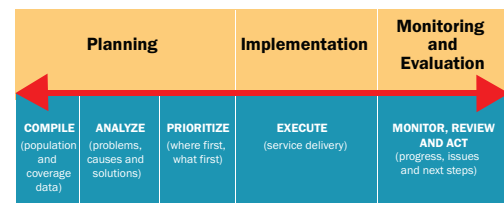
Reaching Every District (RED) is a district-focused, comprehensive strategy developed to tackle the common obstacles to improving access to and utilization of immunization services.



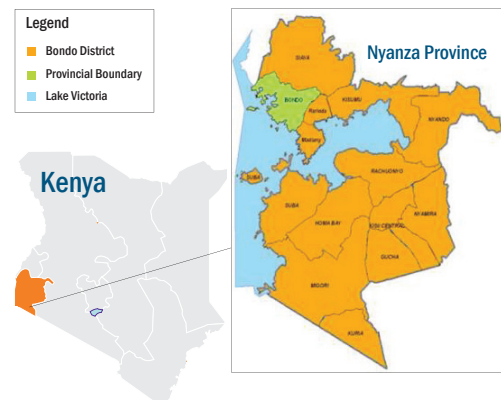
Essential Building Blocks (Components) of RED Approach

Source: Reaching Every District Approach, Guide for District Health Management Teams, WHO Africa region, 2008

## RED Approach Implementation Framework



## Geographical Location Selected Baseline



## Health and Demographic Indicators

	Kenya	Nyanza	Bondo
Area Km <sup>2</sup>	581,313 <sup>a</sup>	12,613 <sup>b</sup>	593 <sup>b</sup>
Population Density	66 <sup>b</sup>	432 <sup>b</sup>	266 <sup>b</sup>
Population Growth	3.0% <sup>b</sup>	2.2% <sup>b</sup>	2.5% <sup>b</sup>
HIV Prevalence Rate	7.4% <sup>a</sup>	13.9 <sup>a</sup>	24. % <sup>c</sup>
Maternal Mortality Ratio	488/100,000 <sup>a</sup>	456/100,000 <sup>a</sup>	640/100,000 <sup>c</sup>
Infant Mortality Rate	52/1,000 <sup>a</sup>	95/1,000 <sup>a</sup>	110/1,000 <sup>b</sup>
Under-5 Mortality Rate	74/1,000 <sup>a</sup>	149/1,000 <sup>a</sup>	208/1,000 <sup>c</sup>
At least 1 ANC Visit	90% <sup>a</sup>	93.6% <sup>a</sup>	80% <sup>a</sup>
ANC 4	47% <sup>a</sup>	30% <sup>c</sup>	22% <sup>d</sup>
HIV Testing at ANC	78.6	-	66% <sup>d</sup>
Skilled Birth Attendance	44% <sup>a</sup>	45.5% <sup>a</sup>	27% <sup>d</sup>

<sup>a</sup> Kenya AIDS Indicator Survey 2007

<sup>b</sup> Kenya National Bureau of Statistics

<sup>c</sup> Annual Operational Plan 5

<sup>d</sup> Calculated from 2009 service data

## Methods

- The RED approach was implemented from October 2010 to June 2012.
- In the community, MCHIP employed the following strategies to reach pregnant women and to address factors hindering their access to PMTCT services:
  - Mapping of household and health facilities' catchment areas was conducted.
  - Numbers of pregnant women were estimated in target communities.
  - Appropriate strategy (fixed or outreach) for the target population was defined.
  - Community Health Workers (CHWs) were recruited and trained in PMTCT and MNCH according to MOH curricula.
  - CHWs conducted home visits each month and linked pregnant women with the health facilities. They also traced defaulters.
  - The government recommended a performance-based monthly stipend of \$25 be given to every CHW.
  - Health care providers conducted outreach services to hard-to-reach areas and participated in community dialogue and action days.
- Health facilities were prepared to respond to the increased demand using the following strategies:
  - 2010 PMTCT and Infant and Young Child Feeding (IYCF) guidelines were rolled out.
  - Health workers' competencies were reinforced through training and supportive supervision.
  - The Standards-Based Management and Recognition (SBM-R<sup>®</sup>) approach to improve the quality of PMTCT services was implemented.

## Results

Cross-sectional health data were compared at two different time points: January to June 2010 (pre-intervention) and a similar period in 2012 (last 6 months of intervention): N=1388

	2010 (%)	2012 (%)	p-value
Percentage of pregnant women completing four focused ANC visits (proxy indicator of early ANC attendance)	25	41	<0.001
Percentage of women delivering under the care of a skilled attendant	23	47	<0.001
Percentage of HIV-infected mothers	21	18	<0.002
Percentage of HIV-exposed infants (HEIs) tested at 6 weeks	27	78	<0.001
Percentage of HEIs who tested positive through PCR testing at 6 weeks between January and June 2012 (2010 data not available)	Not available	5	

	2010	2012
Number of functional community units	10 (38%)	26 (100%)
Community unit coverage	46%	100%
Population served by community units	44,335	172,631
Number of CHWs	610	363
Performance incentives per CHW	0	\$25 per month

## Challenges

- The greatest challenge has been the inability to carry out longitudinal follow-up of cohorts of clients because Kenya uses cross-sectional registers.
- Other challenges:
  - Increased demand for services causing strain at the health facilities
  - Sustainability questions (stipends for CHWs total approximately US \$100,000 per year)
  - Wide scope of work for CHWs

## Conclusion

- This pilot project provides further evidence of the benefits of using the RED approach to improve the uptake of and retention in PMTCT services. However, further studies are required to confirm this association.
- Engaging Community Health Workers is an excellent approach for advocating for and increasing demand of PMTCT services.

## Acknowledgment

- Bondo district community health workers
- Bondo district health management teams, health facility in-charges and service providers
- Kenya ministries of health (Ministry of Public Health and Sanitation and Ministry of Medical Services)
- Other implementing partners
- USAID

## Beneficiaries



Beneficiaries of the program: (from left) Beatrice holding baby Gabriel and Grace holding baby Mary. Both mothers are HIV-positive but now have healthy, HIV-negative children. They are listening to Jane, a Community Health Worker in Bondo.



Training of Community Health Workers in Bar Chando community unit.



Mapping of Usigu health center's catchment area.