



Maternal Health in Nigeria: Progress is Possible Examining the Ondo State Abiye Model

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Maternal Health in Nigeria:

ONDO ABIYE SAFE MOTHERHOOD MODEL

Presentation by
Dr. Olusegun Mimiko
The Executive Governor of Ondo State

INTRODUCTION

- Nigeria accounts for 14% of global burden of maternal deaths despite being only 2% of population
- Currently, at least 150 Nigerian women are estimated to die every day from complications of childbirth
- Powerful advocacy on maternal health has been ongoing in Nigeria since 1970s with limited impact
- We will briefly highlight some of the watershed activities and programs that have occurred in last 40 years or so, which will by no means be exhaustive

Region	Estimated MMR	Number of maternal deaths	Lifetime risk of maternal deaths,1in1000 live births
WORLD TOTAL	260	358, 000	140
Developed regions	14	1700	4300
CIS countries	40	1500	1500
Developing regions	290	355, 000	120
Africa	590	207, 000	36
Northern Africa	92	3400	390
Sub-Saharan Africa	640	204, 000	31
Nigeria	840	50, 000	23
Asia	190	139, 000	220
Eastern Asia	41	7800	1400
South Asia	280	109, 000	120
South-Eastern Asia	160	18, 000	260
Western Asia	68	3300	460
Latin America,& Caribbean	85	9200	490
Oceania	230	550	110

WHO, UNICEF, UNFPA and The World Bank, 2008 data

Zaria Maternity Survey

- The ZMS was conducted by Prof. Kelsey Harrison between 1976 and 1979
- Published in 1985 it is considered the most comprehensive facility based maternity survey comprising data of over 22,000 consecutive births including 238 maternal and 2,700 perinatal deaths
- It scientifically highlighted, more than any other study at that time, the link between cultural and socio-economic demographics and maternal health.

Safe Motherhood Initiative

- In 1987, WHO and other leading developmental agencies launched the SMI in selected developing countries including Nigeria
- The scheme aimed to reduce maternal mortality by empowering women, running efficient antenatal clinics, putting in place effective referral systems, encouraging family planning services, etc
- Aside increased advocacy, little else seemed to have been achieved by the scheme in Nigeria

Prof. Olikoye Ransome-Kuti Years

- 1985 to 1993 was generally acknowledged as the “golden years” of primary health care development and expansion in Nigeria
- This was courtesy of the highly respected late Professor of Paediatrics who was then Federal Minister for Health
- Tremendous progress was made in immunization coverage in infants and extending health care services to rural communities
- Unfortunately the momentum could not be sustained by subsequent administrators

Millennium Development Goals

- Time-bound developmental goals proposed by the United Nations at the dawn of the new millennium that sought to address issues for development
- Agreed by the international community to be achieved by the year 2015
- Brought to the fore the sorry state of maternal health in many countries, particularly in Africa

Health related MDG targets

- MDG 4: To reduce under-5 child deaths by **two-thirds** (i.e. 67%) by 2015
- MDG 5: To reduce maternal deaths by **three-quarters** (i.e. 75%) by 2015
- MDG 6: To combat HIV/AIDS, malaria and other diseases
- It is, however, unfortunate that at the current rate of progress Nigeria may be slow in achieving these goals

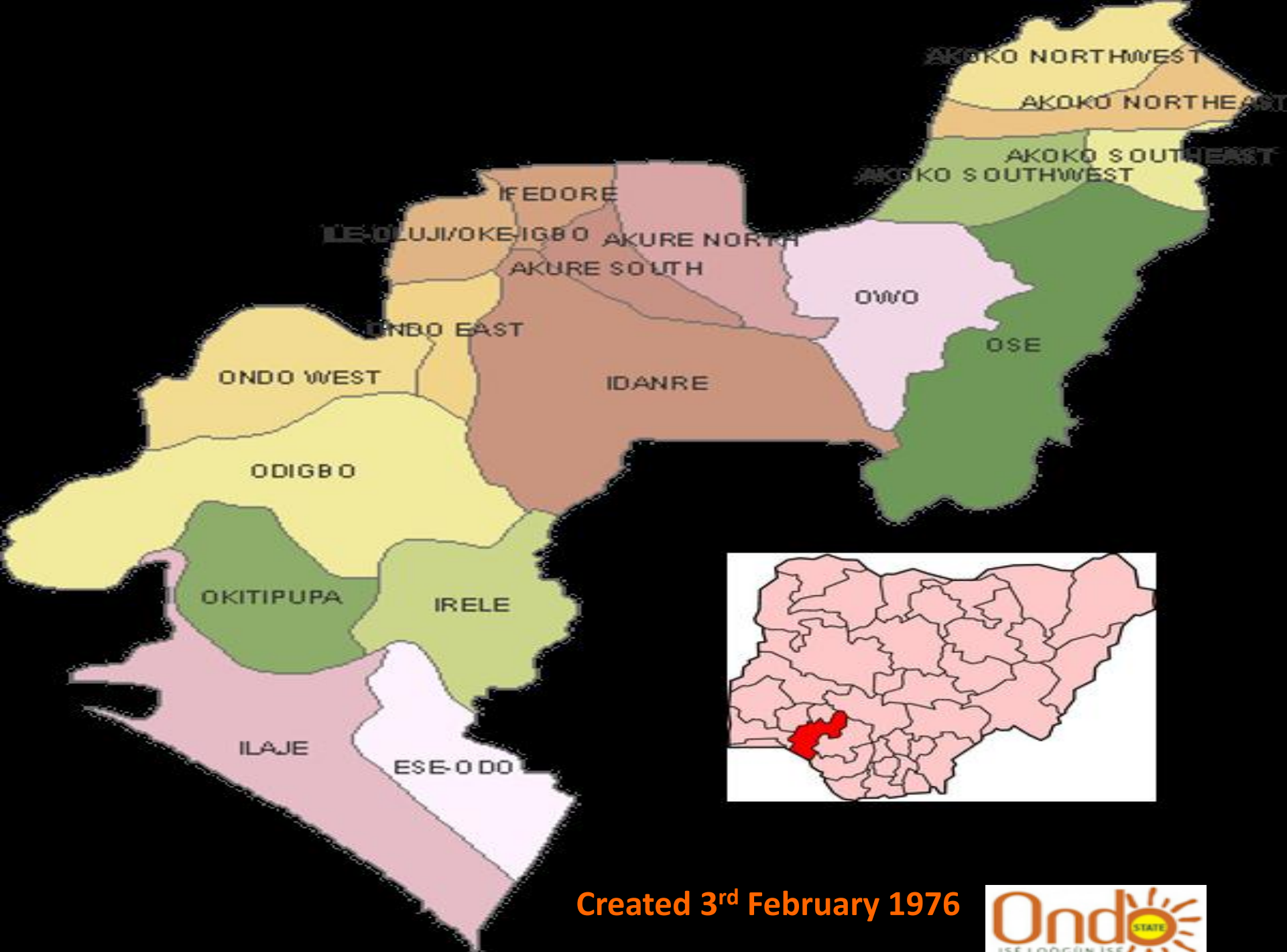
The Midwives Service Scheme

- The MSS was initiated by former President Olusegun Obasanjo and continued by subsequent administrations
- Focuses on employment and deployment of midwives to rural areas nationwide, to propel the principle of skilled birth attendance at delivery
- Though some achievements are being made it is doubtful if the desired impact on reducing maternal deaths will be achieved without the required political will across all levels of government

Life saving commodities for women and children

- President Goodluck Jonathan was last year appointed the co-chairperson of the UN-backed “Saving One Million Lives” project that aims to make available 13 drugs and materials considered critical to the improving maternal and child health in selected developing countries
- This exalted position will further boost the advocacy thrust on issues pertaining to our women and children
- Part of the fund realized from recent partial removal of subsidy on Petroleum is being invested in maternal death reduction (SURE-P)

THE ONDO STATE SUCCESS STORY



Created 3rd February 1976



Geography

- ☐ South-west geo-political zone
- ☐ Land area- 15,000 sq.km
- ☐ Oil producing state
- ☐ Luxuriant vegetation
- ☐ Long coast line
- ☐ Population- approx 3.4m

Natural Resources

- ☐ Extensive fertile soil for agriculture
- ☐ Sub-savannah forest suitable for cattle grazing
- ☐ Vast forest resources
- ☐ Variety of timber species
- ☐ Largest producer of cocoa
- ☐ Cash crops- rubber, cashew, oil palm etc
- ☐ Abundant mineral resources

On assumption of office in 2009 ..

- We were mindful of our promise to provide qualitative, affordable and accessible health care services
- National Demographic Health Survey of 2008 put us as having the worst maternal and child care indices in the Southwestern zone of Nigeria
- We also met an under-funded and grossly inadequate health infrastructure populated by ill-motivated and demoralized professional workforce.

- In view of the foregoing we quickly put in place health care strategies to reform the health sector in order to meet our stated goals

Our Philosophy

- It was clear we had to reset the order of priority and put maternal and child care on the front burner
- Though women and children are considered the vulnerable group we identified with the pivotal role both have in the socio-economic development of the society in the present and in the future



- Whilst others saw this re-orientation as strictly “expenditure” we in Ondo state chose to perceive safe motherhood as an ***investment intricately linked to the cultural and socio-economic emancipation of the family, community and by extension the whole state***
- Having established this fundamental philosophy the next step was to come up with a viable result-oriented project ***founded on evidence-based principles and interventions***

The logo for 'aBiye' features the word 'aBiye' in a blue, sans-serif font. The letter 'i' is replaced by a white silhouette of a person's head and shoulders. Above the 'i' is a small circular emblem containing a stylized figure.

aBiye (Safe Motherhood) Project

Launched on October 28, 2009 at Ifedore LGA to:

- **track** every pregnant woman and bring **qualitative** and **effective** health care to them wherever they live, work or play
- develop **sustainable** equity-based health care services that will provide **universal** access by removing all impediments militating against inter-phasing between our women and the health care system
- implement **equitable** allocation of our limited resources premised on specific needs and **performance driven** principles

Methodology

- Needs assessment and sensitization were conducted that reinforced the significance of a home-grown primary health care approach of achieving our goals
- ***A significant finding of baseline survey showed that less than 16% of registered antenatal patients delivered in the facilities(i.e. Skilled Birth Attendants)***
- socio-demographics of all pregnant women in the pilot LGA was captured to enable their tracking and factors predisposing to maternal and child deaths were confirmed



The ABIYE strategy was to counter four delays predisposing to maternal death:

Strategies to counter Primary phase I (delay in seeking care)

- ***Health Rangers***: Specially trained community health extension workers were assigned 25 registered pregnant women each whom they were expected to monitor with a customized checklist including counseling on family planning, birth preparedness, etc



Strategies to counter Primary phase II (delay in seeking care)

- **Communication:** Each pregnant woman was provided a mobile phone linked up to a caller user group (CUG) so they can maintain free contact with their health rangers and health care providers



Strategies to counter Secondary phase (delay in reaching care)

- **Transportation:** Provision of appropriate means of transportation suitable for the area of operation to help evacuate patients as required
 - range from motorcycles to four-wheel drive ambulances driven by HCPs
 - tricycle ambulances have been distributed to facilities





Strategies to counter Tertiary phase (delay in accessing care)

- ***Improved facilities:***
 - Renovation of 5 existing basic health centres
 - Construction of 11 new ones
 - Provision of drugs, consumables and other necessary materials
- ***Capacity building:*** Recruitment and training of new personnel to man health facilities

Poor infrastructure before

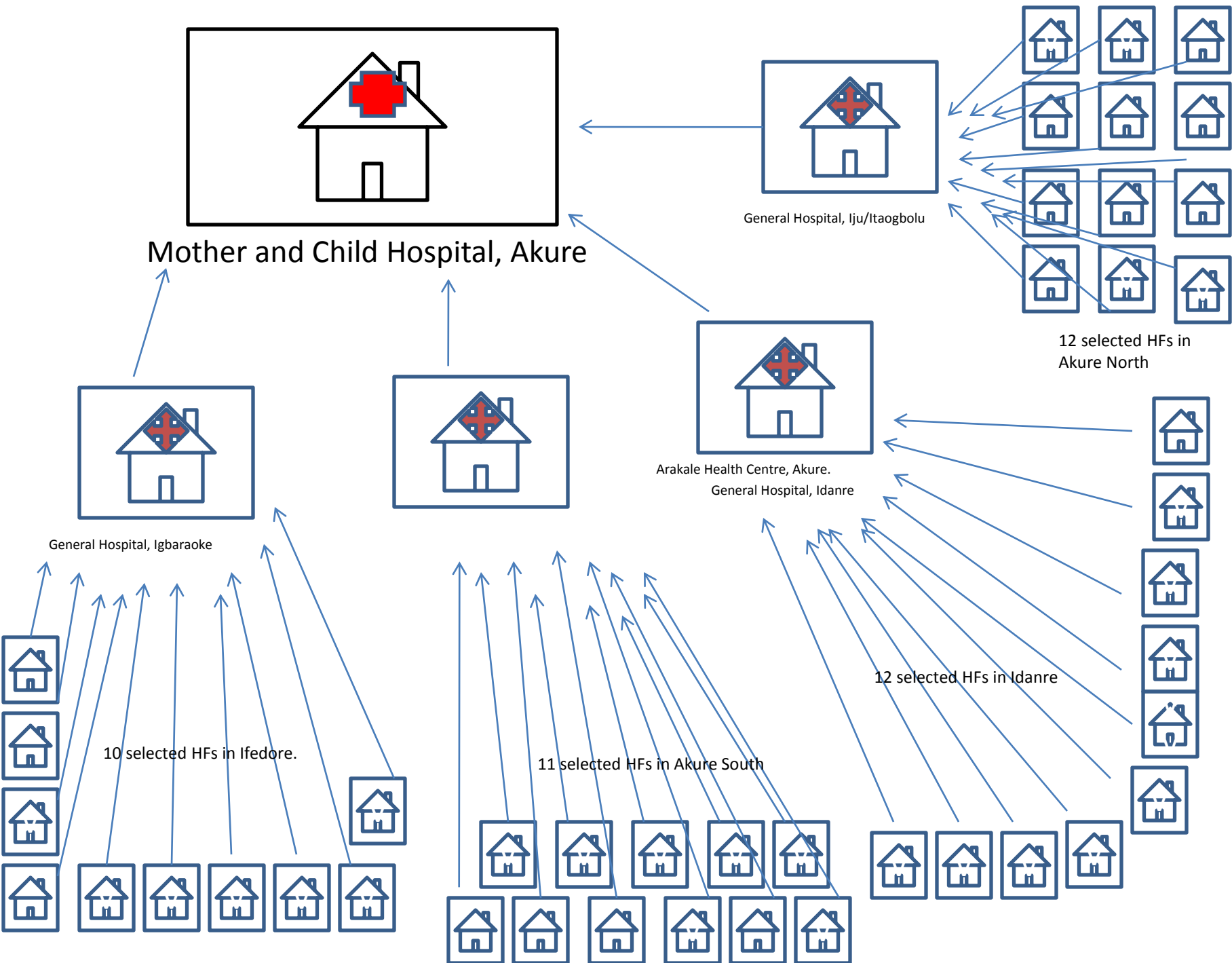


...and Now!



Strategies to counter Quaternary phase (delay in referring care)

- ***Mother and Child Hospital model:*** The need for a well structured and functional 2-way referral system, from the basic and comprehensive health facilities, led to the construction of the MCHA- the apex referral centre under this project





Mother and Child Hospital, Akure

In the first year (2009/2010)

- 1,217 pregnant women were registered initially followed by 1,804 registration in the designated Abiye health facilities
- 1,099 safe deliveries out of initial 1,217 pregnant women registered
- 1 unfortunate maternal mortality which translates to about **100 per 100,000** births which is also encouraging when compared to our national MMR of 545 per 100,000 births (NDHS 2008)
- 100 per 100, 000 as compared to national MM of 545 per 100,000 is great reduction.

In the first year.....

	Pre-Abiye (Jan – Dec 2009)	Post- Abiye (Jan 2010 – Sep 2011)	% difference
Antenatal registrations	240	4,693	1,855% increase
Facility deliveries	98	1,668	1,602% increase
TBA/ mission house deliveries	160	32	400% decrease
Maternal deaths	*	1	*

As at December 31, 2012...

In Abiye pilot LGA of Ifedore

- ☐ 6,135 pregnant women registered
- ☐ 2,272 safe deliveries

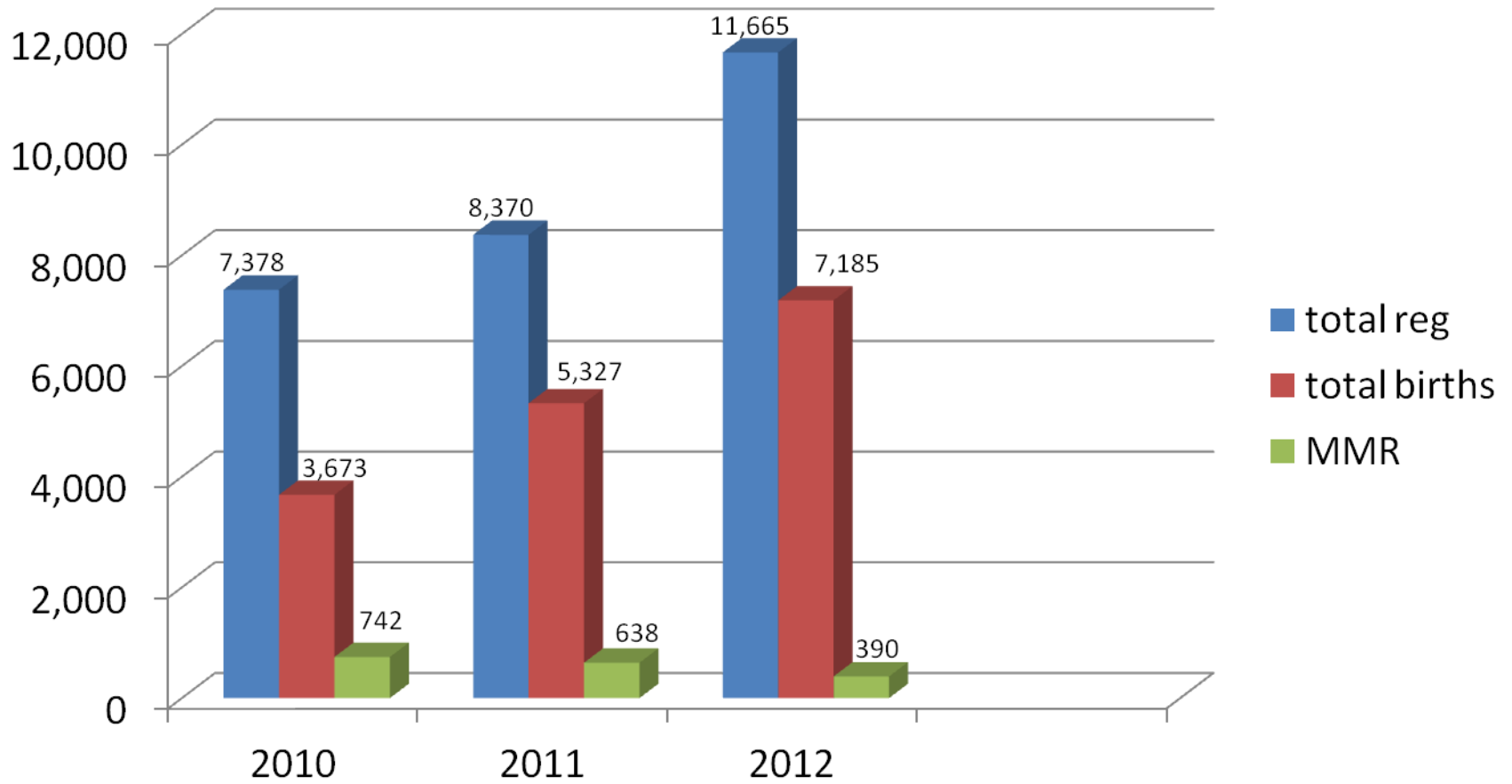
Mother & Child Hosp Akure

- Commissioned February 27, 2010 - first purpose built 100-bed tertiary care facility offering free services
- The mission statement is to run an ***integrated*** maternal and child care facility fully poised to offer ***qualitative*** and ***critical*** interventions when required
- As at December 31, 2012 [34 months of operations]:
 - **59,557** reg. patients including **32,439** under 5s & **27,118** pregnant women
 - **15, 730** safe deliveries including **2,395** caesarean sections & **7,972** paediatric admissions



- The only tertiary maternity facility in Nigeria offering free health services (including free consultations, admissions, medications, blood transfusions and surgical operations) to the teeming masses irrespective of social status, ethnicity or place of residence
- ***The data that emanates from such a facility can reasonably be extrapolated for the whole population in the state***
- Now the busiest maternity centre in the southern part of Nigeria and one of the busiest in the whole country

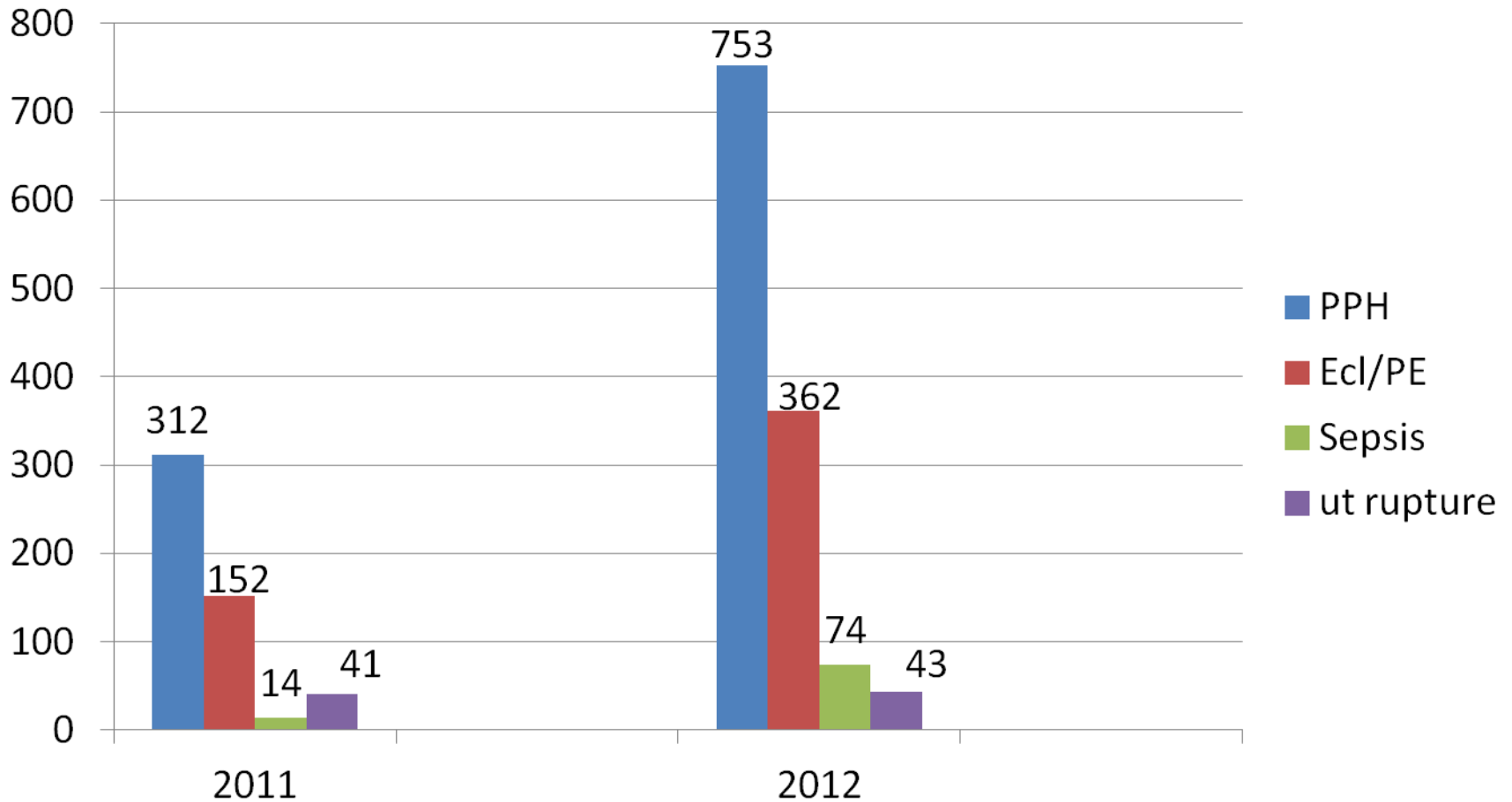
MCHA maternal health stats 2010 - 2012



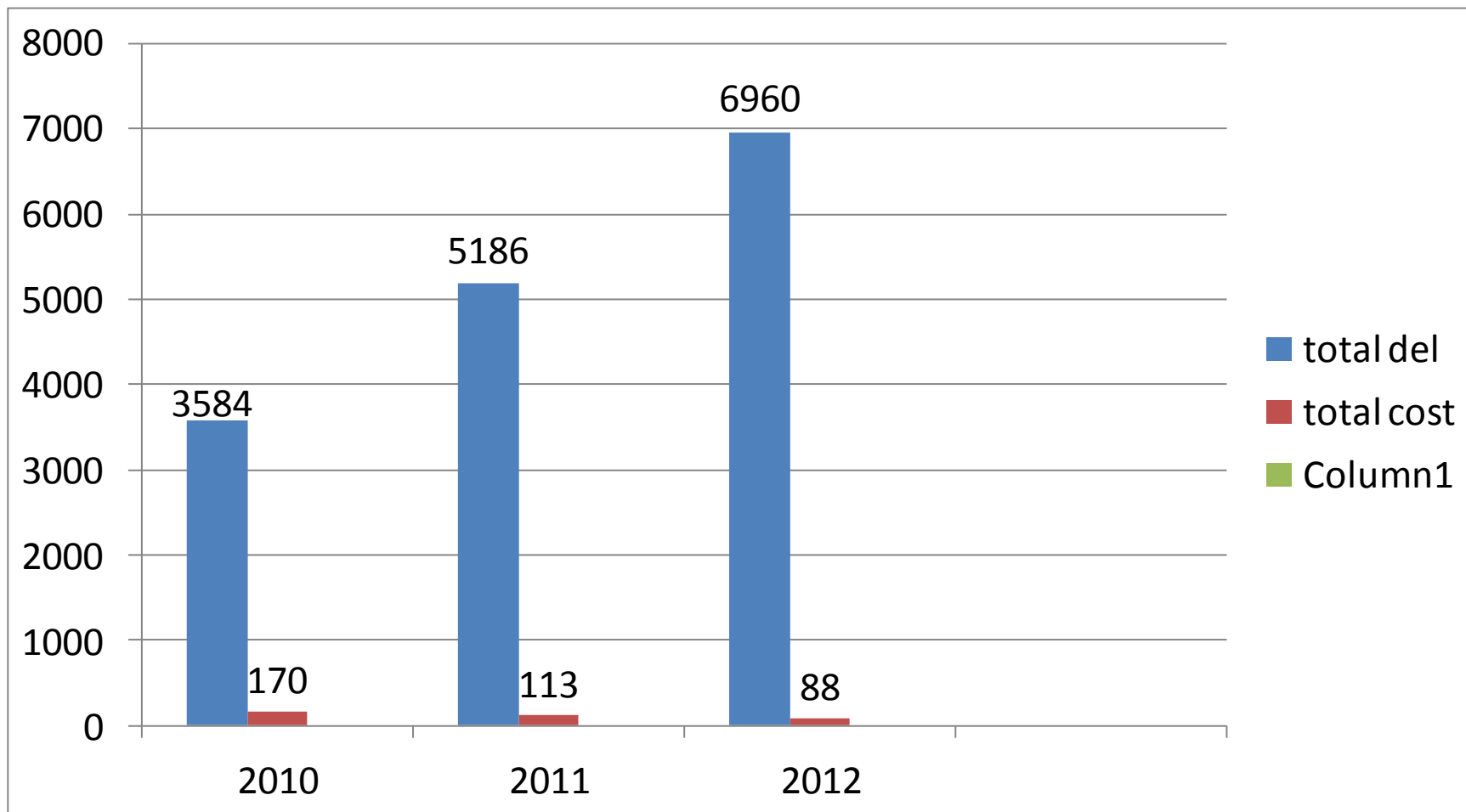
Maternal mortality comparisons

Tertiary facility	Duration of study	Total births	Maternal deaths	MMR (per 100,000 births)
MMSH, Kano	2008 -2009 (2 years)	26,706	317	1,187
FMC, Nguru, Yobe State	2003 – 2007 (5 years)	3,931	112	2,849
OOUTH, Sagamu, Ogun State	2000 – 2005 (6 years)	2,728	75	2,749
UCTH, Calabar, Cross River State	1999 – 2009 (10 years)	15,264	231	1,513
UITH, Ilorin, Kwara State	1997 – 2002 (6 years)	13,092	108	825
MCH, Akure, Ondo State	March 2010 – Dec 2012 (2 year, 10 mths)	16,185	86	531

Major Maternal Morbidity Distribution 2011 versus 2012



Comparison of Expenditure (\$) per delivery at MCHA



Summary

Comparing our performances from 2010 to 2012, there was;

- **58% increase** in patient registrations
- **96% increase** in number of births
- **47% reduction** in maternal mortality ratio **and corresponding 48% decrease** in healthcare financing per patient.
- Similarly, a **26% increase** in children's admissions resulted in a corresponding **26% reduction** in child mortality rate

- ***The amazing outcome of a reduction in financing despite an increase in patient load and morbidity proves that providing quality care for our women and children will enable them access that care before complications set in thereby lowering the cost of clinical management***
- Without an iota of doubt, as a single intervention strategy the MCHA has performed excellently in significantly reducing maternal and child deaths in Ondo State

HOW DID WE DO IT ?

- To instill and maintain professional discipline in the work place, job descriptions and schedules were presented to the staff and incentive packages introduced using key performance indicators (KPIs)
- To ensure focused, qualitative and cost-effective evidence based care, clinical guidelines and protocol management of patients were institutionalized accompanied with mandatory continuing professional development (MCPD) programmes
- To address shortage of health care professionals (HCPs), the principles of task shifting and sharing were encouraged, particularly among doctors, nurses and health attendants

Innovations I

- Managing routine post-vaginal delivery and post-caesarean section patients within 48 hours without compromising on quality of care, thereby reducing cost of care and work load per patient, *and* increasing patient turnover by more than 100%, simultaneously.
- Developing a confidential enquiry format of reporting and recording maternal and child deaths with emphasis on avoidable factors, missed opportunities and levels of substandard care.
- Developing an easily reproducible scoring system of tracking maternal morbidities and near-miss mortalities to expand our maternal health data base
- Developing a unique and cost-effective digitalized drug procurement system that has eradicated out-of-stock syndrome, the bane of many free health schemes across the country.

Innovations II

- Accredited in record time by the Medical and Dental Council of Nigeria (MDCN) to run a credit issuing Continuing Professional Development (CPD) training programme on emergency obstetric, newborn and child care.
- Collaborating with the London School of Hygiene and Tropical Medicine to conduct the **WOMAN Trial** a multi-centre double blind randomized clinical trial on management of postpartum haemorrhage using tranexamic acid (an anti-fibrinolytic agent), for which we are the **best rated facility globally** since September 2012.
- Developing a revolutionary health education video CD in vernacular (subtitled in English) in collaboration with Maternal Pulse Foundation emphasizing birth preparedness and complication readiness.

Confidential Enquiry into Maternal Deaths in Ondo State (CEMDOS)

- A ground-breaking bill on CEMDOS was passed into law on May 24, 2010 mandating the reporting and investigation of circumstances around all maternal deaths
- This laid the foundation for the accurate measurement and tracking of maternal deaths in the State upon which policy formulations can be based



- The one-year report of CEMDOS findings and recommendations will be ready by June this year and promises to be the first of its kind in Nigeria
- Prior to this time only facility based or indirect surveys (like sisterhood method) have been used to measure maternal death rates in Nigeria

Abiye Project Evaluation Report

- Evaluation report conducted by Institute of Public Health Obafemi Awolowo University Ile-Ife/ Bill Gate Partnership revealed that the Abiye safe motherhood program has achieved the three set goal
- This is as stated below:
 - Facility utilisation has increased to 69.6% as compared to 60% targeted
 - Based on the increase in the proportion of deliveries taken by SBA from 43.3% in 2008 to 69.6% in 2012, it is likely that the MMR may have decreased by 31% within the period.
 - This extrapolation is also collaborated by facility based Mother and Child Hospital actual MMR annual reduction of 15%
 - Maternal mortality has reduced by 31% in 2yrs as compared to our ambitious 50%.
The consolation is that if this rate is sustained achieving MDG is realistic by 2015

contd.

- Factors associated with programme achievement include:
- political commitment, stakeholder's goodwill, technically-sound and evidence- informed programme design, implementation fidelity and dynamics, community-based health mobilization and monitoring and the fact that it is free of charge
- based on this empirical evidence, scaling up of the program became imperative.

Abiye scale up

- In the other 17 LGAs sensitisation of 500 stake holders has been done.
- Registration of 20,943 pregnant women
- Training of 450 Health Rangers
- Distribution of 10,000 mobile phones
- Training of 600 Residency Card (Kaadi Igbeayo) operatives
- Procurement and distribution of 190 laptops + printers
- Procurement of drugs for Abiye facilities
- Distribution of 100 tricycle ambulances
- Ongoing renovation/ upgrading of facilities
- Commissioning of a second (new) Mother and Child Hospital

ABIYE SCALE UP



The Mother & Child Hospital Ondo

- In continuation of our 5-year strategic plan to replicate and sustain the provision of quality healthcare services for our women and children across the state
- The Mother and Child Hospital Ondo is a referral tertiary facility modeled after the one in Akure in terms of functionality
- Identical mission statement – to run an integrated maternal and child care facility fully poised to offer qualitative and critical interventions when required.





Mother and Child hospital Ondo



The Vision

- It is our extrapolation that by year 2015, at least 20,000 of our estimated 30,000 deliveries in Ondo state will be catered for in 4 Mother and Child Hospitals strategically located around the state – Akure, Ondo, Ikare-Akoko and Okitipupa
- The remaining 10,000 deliveries will then be distributed among the peripheral Abiye and Abiye plus centres and the private sector
- This feat when achieved will be unmatched in the annals of maternal and child healthcare service provision in Nigeria.

CHALLENGES

Funding gap

- We have already invested approx. N784 million(4.9million US dollars) on the Abiye project at the Primary healthcare level and appreciate the support of the World Bank in making it a success story via the HSDP II fund
- The Mother and Child Hospital model is wholly funded by the Ondo state government to tune of 2.207 billion(13.8 million US dollars)
- The projected capital and recurrent expenditure for scale up and sustenance up to 2015 is N7 billion **(43.75million US dollars)**
- However the projected state budgetary provision is N4.0 billion **(25million USD)**
- Funding gap---- N3.0 billion **(18.75million USD)**

Partnership

- Capacity building
- Health education
- Infra structural development
- ICT in relation to data gathering (CEMDOS)
- Development of youth friendly centres
- Donation of HIV/AIDS screening kit, ITN, Consumables etc
- Family planning

Sustainability strategies

Sustainability 2015 and beyond

- Community Based Health Insurance scheme
- Introduction of a health tax
- Research grants
- Training fees
- Donor agencies support
- Health Trust Fund

What about reducing child
mortality?

- Majority of child deaths under-5 years occur at birth and within first week of life (perinatal)
 - direct linkage between newborn survival and quality of maternal care
- By reducing maternal deaths you are also improving child health

CONCLUSION

- The public's expectations derived from a second **legitimate mandate** bestowed on us drive **our political will** to succeed
- The limited resources available to us with creative and focused partnership can achieve MDG 4 and 5 in record time
- We have decided to take the bull by the horns and assure the world that we intend to accomplish this
- *We are committed to ensuring that pregnancy will no longer be death sentence in Ondo state*



THANK YOU FOR LISTENING





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Results Based Financing – Potential “game changer” of Nigerian health systems?

Dinesh Nair
Senior Health Specialist,
World Bank

January 16th, 2013

Fragmented health systems with unclear accountability result in poor management at health facilities in Nigeria



- **Fragmentation and poor coordination** between federal, state and local governments
- **Unclear accountability** and poor performance review to strengthen it
- **No organizational incentives** to good or poor performance

RBF finances on achievement of responsibilities and monitors results rigorously

Results Based Financing (RBF) Approach in Nigeria



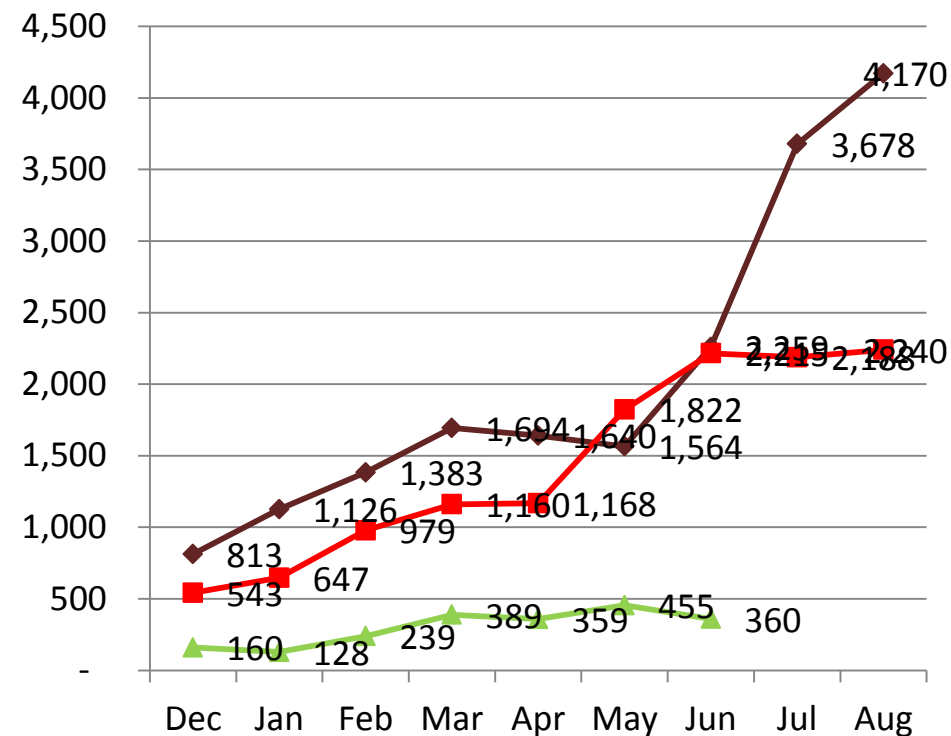
RBF changed key elements of service delivery

	From	To
Financing	<ul style="list-style-type: none">• Input based	<ul style="list-style-type: none">• Result based
Account-ability	<ul style="list-style-type: none">• Fragmented and unclear	<ul style="list-style-type: none">• Defined with indicators and monitored
Investments (Autonomy)	<ul style="list-style-type: none">• By local governments	<ul style="list-style-type: none">• By health facilities
Drug supply	<ul style="list-style-type: none">• Distributed from central stores	<ul style="list-style-type: none">• Purchased by health facilities
Performance	<ul style="list-style-type: none">• Not verified	<ul style="list-style-type: none">• Verified and counter-verified independently

Pre-pilot has been showing promising results (1/2)

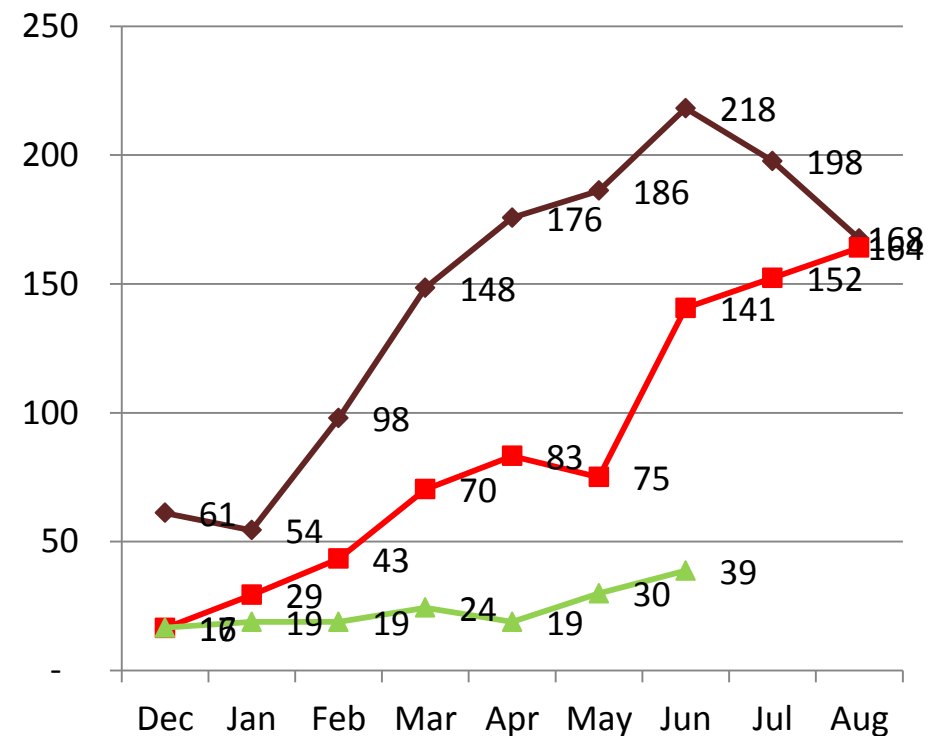
Utilization of Key Services for 3 pre-pilot LGAs

New OPD*



- 4-5 fold increases
- One LGA struggles with delayed performance payment

Institutional Delivery*



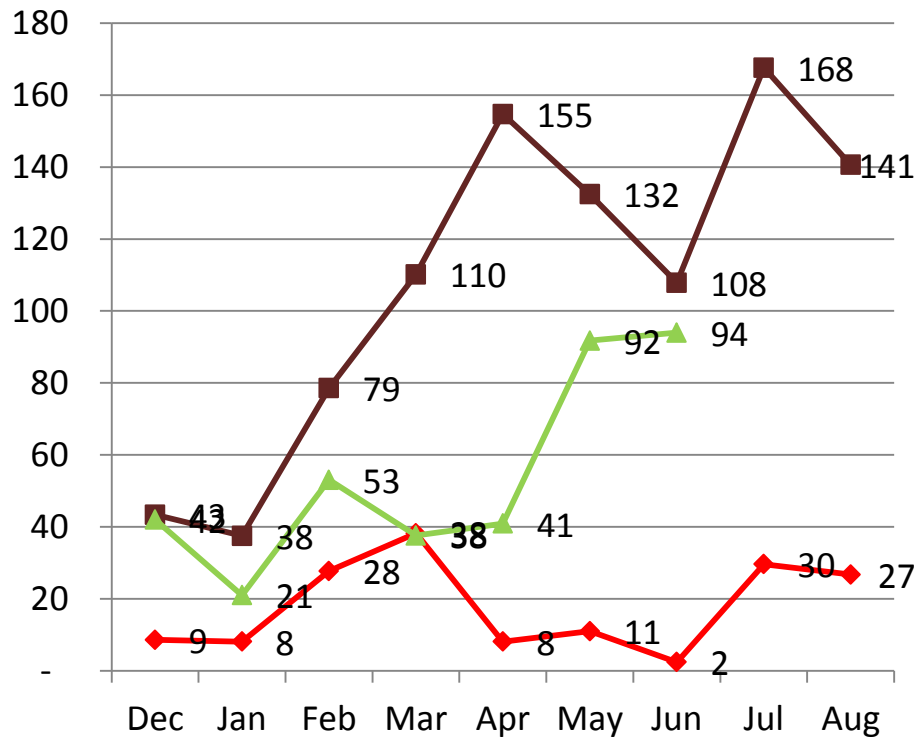
- Rapid increases in utilization
- Some facility already reached at universal coverage level

* Normalized to 100,000 catchment population

Pre-pilot has been showing promising results (2/2)

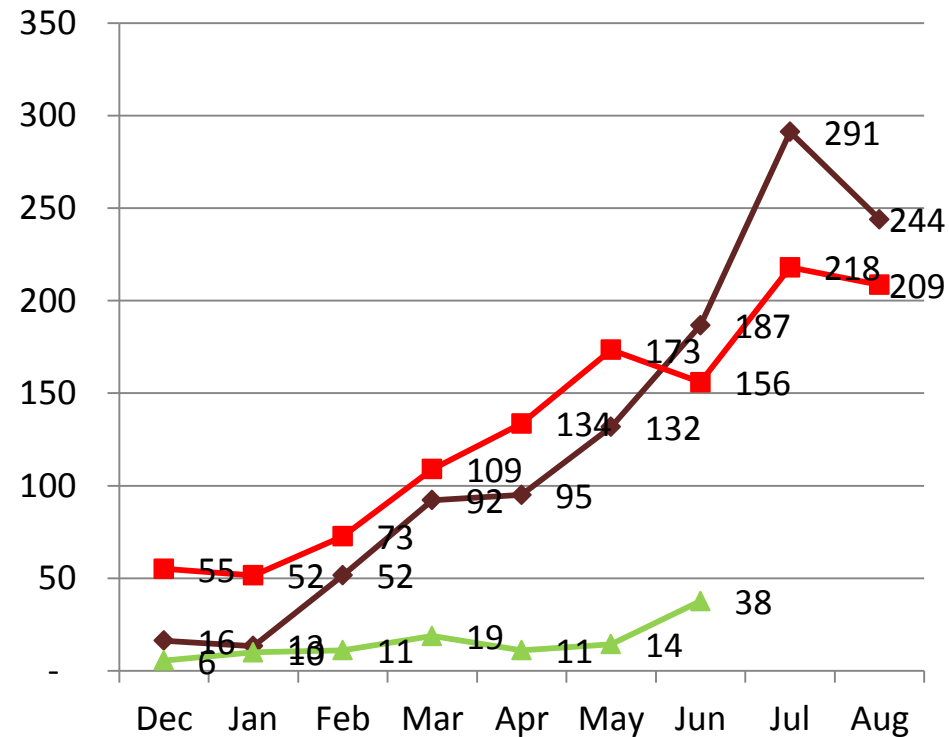
Utilization of Key Services for 3 pre-pilot LGAs

Completely Vaccinated Child *



- Vaccine procurement rely on top-down distribution, creating bottlenecks in one LGA

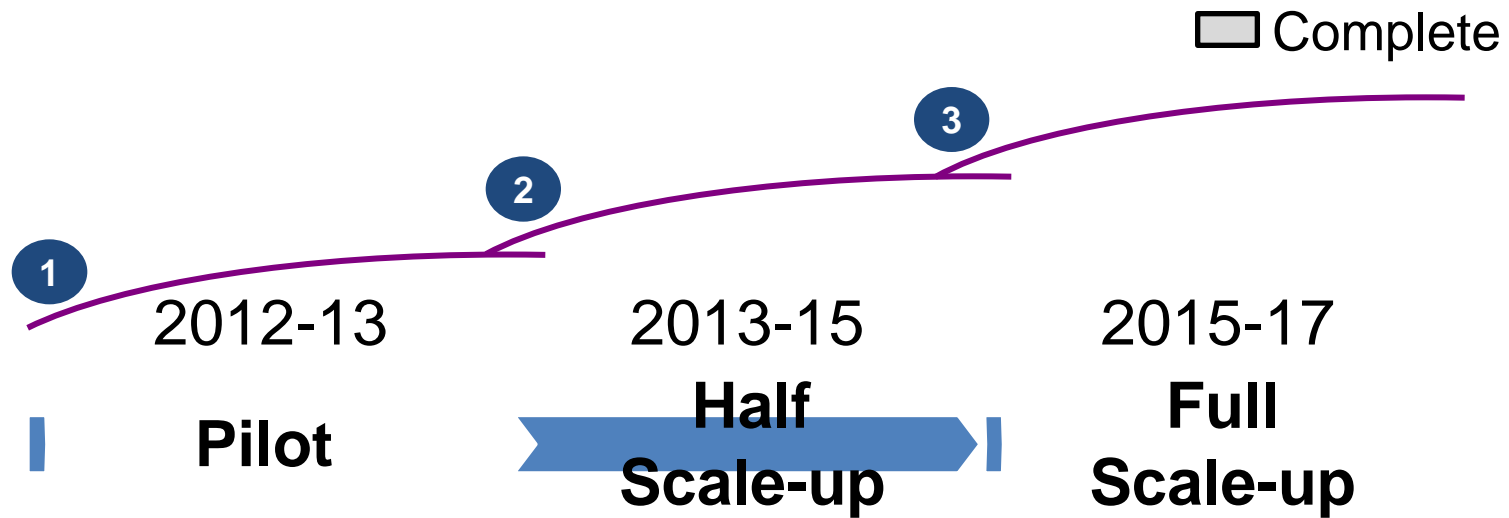
New Users of Modern FP Method *



- Rapid and steady increases
- One LGA struggles with delayed performance payment

* Normalized to 100,000 catchment population

The project aims to benefit ~10 million over 5 years



	2012-13	2013-15	2015-17
States	3	3	3
Local govt.	3	28	52
Facilities	34	310	576
Population	0.4 million	5.0 million	9.4 million

Early lessons and discussion point

- RBF can improve health outcomes rapidly at low cost by addressing underlying health system issues in Nigeria
- RBF can complement input-models such as Abiye model by increasing accountability and the focus on results
- Timely disbursement of performance bonus is essential to build trust and make the RBF work
- Intensive technical assistance is critical to enable health centers to leverage the RBF system