Benefits, Impacts and Requirement of Meeting National MNCH targets in Nigeria

Nwachukwu, CE[1], Nwagbara BA[2]

Affiliations:

1. **The Palladium**
2. **FHI360, Nigeria**

19 October 2015

Global **MATERNAL NEWBORN** Health Conference
reaching every mother and newborn with quality care
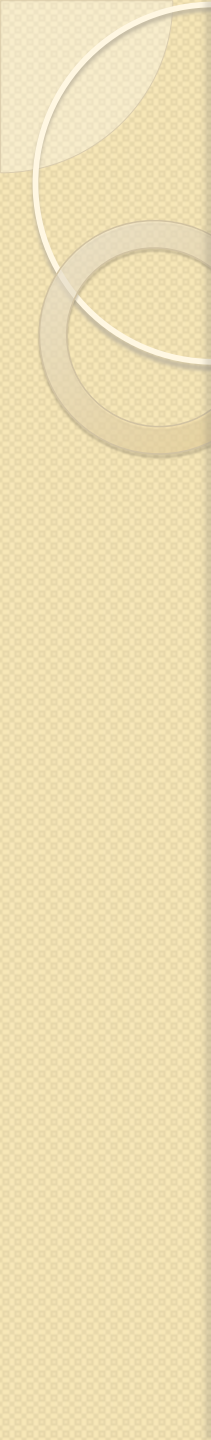
OCTOBER 18–21 2015 Mexico City
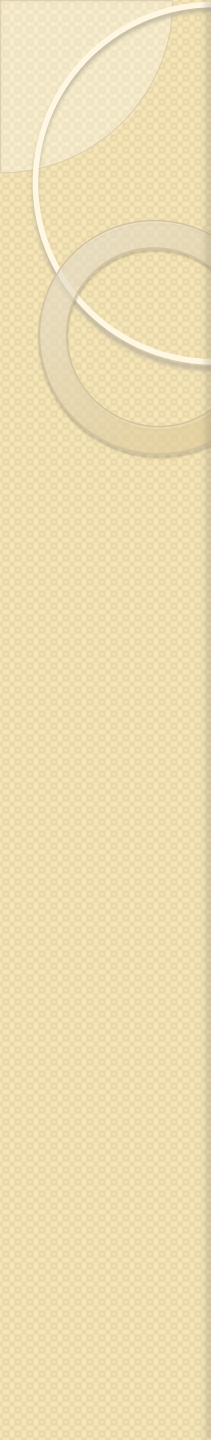
Palladium
MAKE IT POSSIBLE

Background & Introduction

- Nigeria is a multi-ethnic, multi-cultural black W/African nation

- Population Density (A moving target) = 153 (2006), 194 (2013) and 206 (2015).

- High maternal (565/100,000) and child (171/10,000) mortality ratio (NDHS 2008)

- Second highest maternal deaths globally after India (10% burden)

- CPR (NDHS): 15.7% (1999), 13.3% (2003), 15.4% (2008), 15% (2013)

- Unmet Need for FP = 20% (NDHS 2008), 22% (NDHS 2013)

- Wide regional variations on these indices

- As a result:
  - ANC attendance (58%),
  - Skilled births (39%) [NDHS 2008]
  - Poor access to life saving commodities including that of family planning (FP).
  - TRF = 5.5
- Nigeria is making slow but steady progress but at risk of not meeting the health related MDGs by 2015.
- All the MDG goals can benefit from an effective FP programme directly or indirectly.

- Cleland et al (2006) established that increasing contraceptive use in countries with high FR could avert about 32% of all maternal and 10% of childhood deaths.

- Adedini and Odimegwu (2010) found that hazards of U5 death in Nigeria were 46% significantly lower for children whose mothers were using contraceptives (HR=0.54, $p<0.001$).

- Moore 2009 reports that addressing unmet needs for contraception in Nigeria could avert an estimate of nearly 20,000 maternal deaths by 2015.

- The GoN instituted strategies and programs to reduce maternal deaths
  - Achieve ↑CPR from 15% in 2008 to 36% by 2018 (London FP summit June 2012)
  - Increased investment in FP commodities & logistics to $33.4m by 2018
  - About 300% (from $3m to $8.5m annually) increase by 2018.
  - Saving 1million lives by 2015 (launched November 2012)
    - As the country's contribution to the global "Saving 100m lives" by 2015.
  - MDG-MNCH SURE-P funds + GoN + Donor funds
  - NPHCDA launched the Midwife Service Scheme (MSS) in 2011
  - The plans outlined maternal, neonatal, and child health interventions that will be implemented to achieve its goals.

- This study will used the Spectrum® software to model the resource implications and potential outcomes of meeting the CPR goal of 36% by 2018.

Study goals and objectives

Goal:

- To project and determine the implications and impacts of reaching the Contraceptive Prevalence Rate (CPR) goal in Nigeria by 2018.

Specific Objectives:

- To determine the family planning commodity needs to meet the National CPR goal by 2018 using the Spectrum modelling software
- To determine the number of new users of family planning services to meet the National CPR goal by 2018
- To determine the cost of providing commodities required to meet the National CPR goal by 2018
- To determine the number of maternal and child lives that will be saved from the MNCH interventions by 2018.
- To use evidence from the projection for advocacy

Methodology: **Study Design**

- This study is a policy analysis using the Spectrum ® mathematical modelling software.

- The study made projections using the MNCH related interventions, indicators and targets identified in the:
  - "Saving One Million Lives" project,
  - The SURE-P project
  - Presidential declaration in the London Summit and their impacts and benefits on lives saved within target periods.
  - National Strategic Health Development Plan (NSHDP 2010 - 2015)

Methodology: **Spectrum Software**

It contains the following component modules, among others:

- **DemProj (Demography Projection):** Projects the population for an entire country or region by age and sex, based on data & assumptions about fertility, mortality, and migration.

- **FamPlan (Family Planning)**: Projects FP requirements to reach National goals for unmet need, CPR or desired fertility.

- Can be used to set realistic goals, to plan for the service expansion required to meet program objectives, and to evaluate alternative methods of achieving goals.

- **LiST (*Lives Saved Tool):*** Project the changes in child survival in accordance with changes in coverage of different child health interventions.

The modules identified here will be used in this study

Free download: www.healthpolicyproject.com

Data Sources

- Credible National data that is easily acceptable
- Modest, realistic & justifiable assumptions where data is absent
  - National Population Census (2006)
  - NDHS (2008)
  - MCIS (2010)
  - Other reputable local and international publications eg IOM, Guttmatcher Institute, etc.
- Spectrum contains population data of 193 countries from the United Nations Population Division

Data Requirement…Targets

- CPR target at final year (2018)
- Unmet need target at final year (2018)
- ANC coverage at final year (2018)
- SBA coverage at final year (2018)
- Other family planning & maternal health intervention targets at final year (2018) (NSHDP 2010 - 2015)
  - Changes in method mix
  - Changes in source mix
  - Home vs. facility delivery
  - Quality of ANC
  - Breastfeeding practices
  - Quality of post natal care

Table of Interventions Modeled

	Base Year Coverage: 2008	First Year of Intervention: 2012	2015 Target	Last Year: 2030	Notes
SBA	38.9	46.4	52.0	80	
Facility Delivery	35	42.3	47.7	75	
Home Delivery (Unassisted)	61.1	53.6	48	20	
Home Delivery (Assisted)	3.9	4.1	4.2	5	
ANC	57.7	63.6	68	90	

Table of Interventions Modeled…Vaccine Coverage

	Base Year Coverage: 2008	First Year of Intervention: 2012	2015 Target	Last Year: 2030	Notes
BCG	49.7%	55.6%	60%	60%	
OPV3	38.7%	65.2%	85%	85%	
DPT3	36.7%	64.3%	85%	85%	

Result Table 1

Table 1: Reduction in Unmet Need Achieved		
	Baseline	CPR 36% (2018)
2012	20.2	20.2
2013	20.2	15.5
2014	20.2	10.8
2015	20.2	6
2016	20.2	1.3
2017	20.2	0
2018	20.2	0

Result Table 2

	Condom	Female Sterilization	Injectable	IUD	Implant	Pill	LAM	Total CPR
Table 2: CPR Achieved by 2018 disaggregated by the methods mix								
2012	2.4	0.4	2.6	1.01	0	1.7	1.6	9.7
2013	3.48	0.59	3.86	1.5	0.08	2.52	2.38	14.42
2014	4.52	0.78	5.13	1.99	0.21	3.35	3.16	19.13
2015	5.51	0.98	6.39	2.48	0.39	4.17	3.94	23.85
2016	6.44	1.17	7.66	2.97	0.62	5	4.71	28.57
2017	7.32	1.36	8.92	3.46	0.9	5.82	5.49	33.28
2018	8.16	1.56	10.18	3.95	1.23	6.65	6.27	38

Result Table 3

	No Intervention	CPR of 35% by 2018
Table 3: Projected Total Fertility Rates (TFR)		
2012	5.7	5.7
2015	5.7	4.86
2018	5.7	4.03

Result Table 4

Table 4: Number of Users needed to achieve CPR targets: 2018

	Condom	Female Sterilization	Injectable	IUD	Implant	Pill	LAM	Total
2012	672,225	111,584	729,378	283,042	0	476,273	449,057	2,721,559
2013	1,005,872	170,691	1,115,734	432,971	22,435	728,557	686,926	4,163,186
2014	1,343,150	233,124	1,523,838	591,340	61,282	995,043	938,184	5,685,961
2015	1,683,451	299,010	1,954,505	758,464	117,903	1,276,262	1,203,333	7,292,927
2016	2,026,301	368,509	2,408,792	934,755	193,742	1,572,905	1,483,025	8,988,029
2017	2,371,124	441,780	2,887,730	1,120,612	290,329	1,885,645	1,777,894	10,775,112
2018	2,717,043	518,938	3,392,084	1,316,331	409,244	2,214,980	2,088,410	12,657,030

Result Table 5

	Condom	Female Sterilization	Injectable	IUD	Implant	Pill	LAM
2012	80,667,008	70,960	4,376,267	211,583	**22,435**	7,144,091	112,264
2013	120,704,624	80,562	6,694,403	252,672	44,760	10,928,362	171,731
2014	161,178,032	90,642	9,143,026	295,914	72,772	14,925,648	234,546
2015	202,014,064	101,248	11,727,026	341,469	106,913	19,143,934	300,833
2016	243,156,096	112,394	14,452,750	389,415	147,644	23,593,574	370,756
2017	284,534,848	124,055	17,326,380	439,737	195,422	28,284,668	444,473
2018	326,045,120	70,839	20,352,504	326,590	**190,544**	33,224,702	522,103

Table 5: Quantity of Commodities Required to meet CPR Targets

Result Table 6

	Condom	Female Sterilization	Injectable	IUD	Implant	Pill	LAM	Total
Table 6: COST OF COMMODITIES AND LOGISTICS REQUIRED TO MEET TARGETS								
(NGN): Millions								
2012	435.06	30.87	1,039.29	33.32	27.07	647.45	0	**2,213.06**
2013	651.00	35.04	1,589.81	39.80	54.01	990.40	0	3,360.06
2014	869.29	39.43	2,171.32	46.61	87.81	1,352.66	0	4,567.11
2015	1,089.53	44.04	2,784.97	53.78	129.01	1,734.95	0	5,836.29
2016	1,311.42	48.89	3,432.29	61.33	178.16	2,138.21	0	7,170.30
2017	1,534.60	53.96	4,114.73	69.26	235.82	2,563.35	0	8,571.70
2018	1,758.47	30.81	4,833.38	51.44	229.93	3,011.04	0	**9,915.08**

Result Table 7

Table 7: Maternal and Child deaths prevented	2012	2015	2018
No Intervention (Current Investment Rate)			
WRA (15-49)	0	0	0
Children (0-60 mths)	0	7717	29,424
Total Lives Saved	**0**	7717	**29,424**
Increasing CPR to 36% by 2018			
WRA (15-49)	0	3,991	19,003
Children (0-60 mths)	0	103,347	292,357
Total Lives Saved	**0**	**107,338**	**311,360**

Result Summary

- To achieve a CPR of 36% by 2018, an additional NGN 4.1b ($200m) will be invested on commodity procurement and distribution.

- The quantity of additional contraceptive commodities needed to meet this goal include; 1.2 million condoms, 8.6 million 3-monthly injectable contraceptives, 14,000 IUCD, 83,000 implants and 14 million combined oral pills.

- Increased in number of new users.

- This additional investment alone will save the lives of an estimated 19,000 WRA and 292,300 under-fives.

Conclusion

- This study outline the resource implications and impacts of meeting the National CPR goal by 2018

- Exposed resulting impact on the lives of mothers and children.

- The result will support the Program Managers at the Office of the Minister of State for Health in their planning and investment of the SURE-P and other MNCH programs.

- Will also identify funding gaps when compared with currently available funds.

- The report will also be of good use to organizations and institutions that are focused on maternal health advocacies and in holding government accountable to their roles and pledges.

References

- WHO & UNICEF 2012. Countdown to 2015, Maternal, Newborn & Child Survival: Building a Future for Women and Children – The 2012 Report.

- GON 2012. Nigeria Millennium Development Goals Report 2012. www.mdgs.gov.ng

- National Population Commission (NPC) [Nigeria] and ICF Macro. 2009. Nigerian Demographic and Health Survey 2008. Abuja, Nigeria: National Population Commission and ICF Macro

- UN Millennium Project (2005). Who's got the power? Transforming Health Systems for Women and Children. Summary version of the report of the Task Force on Child Health and Maternal Health. New York, USA

- Moore, A (2009). If we're serious about the Millennium Development Goals, let's get serious about family planning. Washington DC, The Henry L Simpson Center.

- NSHDP: FMoH. National Health Strategic Development Plan (NHSDP 2010 - 2015). November 2010

- Stover J, McKinnon R, Winfrey B. Spectrum: a model platform for linking maternal and child survival interventions with AIDS, family planning and demographic Projections. International Journal of Epidemiology 2010: 39:i7-i10. doi: 10.1093/ije/dyq016.

- Winfrey W, McKinnon R, Stover John. Methods used in Lives Saved Tool (LIST). BMC Public Health 2011, 11 (suppl):S32

- John Bongaarts. A framework for Analyzing the Proximate Determinants of Fertility. Population and Development Review, vol 4, Issue 1; Mar 1978; 105-132.

Many THANKS for Your Attention

Dziękuję Ďakujem dhanya-waad Дякую

bedankt ありがとう go raibh maith agat

tesekkürle Спасибо شكراً Ese gan

Na gode m' Merci köszi tack så mycket

uku Thank you faleminderit

We k'obiruo

takk Danke hvala díky kiitos

Obrigada Mulţumesc nandri

Ευχαριστώ Grazie anugurihiitosumi תודה

Muchas gracias dhanya-waad köszönöm

tack

Dalu nu o ačiû Terima Kasih

aitäh děkuji vam mange tak salamat