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Ensuring health security for Nigerians by 2050: closing the equity gaps in reproductive health

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Abstract

Background: Reproductive health is a key foundation for strategies to address health security. It constitutes a vital element in the vision to achieve improved health, quality of life and well-being of individuals and families and the realisation of national economic goals. Developing a blue print for health security in reproductive health matters may contribute to closing the equity gaps in Nigeria by the year 2050.

Methods: Gaps in reproductive health were identified through situation analysis of selected reproductive health indices. SWOT analysis was also conducted to outline areas of strengths and opportunities, in addition to weaknesses and threats. Key reproductive health indicators were forecasted for 2050.

Results: Despite all efforts, gaps still exist in the country's reproductive health indices including maternal, perinatal, contraceptive, abortion and gynaecological. Most pregnancy-related deaths are linked largely to preventable causes. If unaddressed, these challenges would undermine gains from previous interventions and responses from governmental and non-governmental organizations and pose serious threats to the nation's health security.

Conclusions: The country must be committed to reproductive health agenda that is focused on the International Conference on Population and Development goal in its bid to achieve health security by the year 2050. Due considerations must be accorded to emerging reproductive health issues like men's reproductive health and their involvement in their partners' reproductive health, and the reproductive health needs of the aged, people with disabilities and those in humanitarian settings. Further in achieving health security for Nigerians by the year 2050, the principles underlying the reproductive health policy of the country must be upheld. These include equity, right based approach, gender and age responsiveness, cultural sensitivity and continuum of care amongst others.

Keywords: *Health security; Reproductive health; Maternal indices; perinatal health; Nigeria.*

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Abstrait

Contexte : La santé reproductive est une fondation essentielle des stratégies visant à assurer la sécurité sanitaire. Elle constitue un élément essentiel de la vision pour améliorer la santé, la qualité de vie et le bien-être des individus et des familles, ainsi que la réalisation des objectifs économiques nationaux. L'élaboration d'un schéma directeur pour la sécurité sanitaire en matière de santé reproductive pourrait contribuer à combler les écarts d'équité au Nigéria d'ici à 2050.

Méthodes : Des lacunes en matière de santé reproductive ont été identifiées à l'aide d'une analyse de la situation de certains indices de santé reproductive. Une analyse SWOT a également été réalisée pour définir les zones de forces et d'opportunités, et aussi des faiblesses et des menaces. Les principaux indicateurs de la santé reproductive ont été prévus pour 2050.

Résultats : Malgré tous les efforts déployés, il y'a encore des déficiences dans les indices de la santé reproductive du pays, notamment en matière de santé maternelle, périnatale, contraceptive, avortement et gynécologique. La plupart des décès liés à la grossesse sont largement liés à des causes évitables. Si ces problèmes ne sont pas résolus, ces défis affaibliraient les gains tirés des antérieures interventions et réponses des organisations gouvernementales et non gouvernementales et menaceraient gravement la sécurité sanitaire du pays.

Conclusions : Le pays doit être commis à un programme de santé reproductive axé sur l'objectif de la Conférence Internationale sur la Population et le Développement visant à instaurer la sécurité sanitaire à l'horizon 2050. Il convient de tenir dûment compte des problèmes émergents en matière de santé reproductive, tels que la santé reproductive des hommes et leurs participations dans la santé reproductive de leurs partenaires, et les besoins en matière de santé reproductive des personnes âgées, des personnes handicapées et de ceux dans des situations humanitaires. En plus, pour garantir la sécurité sanitaire des Nigérians d'ici 2050, les principes qui sous-tendent la politique de santé reproductive du pays doivent être respectés. Ceux-ci incluent l'équité, l'approche fondée sur les droits, la réactivité au genre et à l'âge, la sensibilité culturelle et le continuum de soins, entre autres.

Mots-clés : sécurité sanitaire ; La santé reproductive; Indices maternels; santé périnatale; Nigeria.

The primary focus of global health security is outbreak of infectious diseases of which Low and Middle Income Countries (LMICs) are at greater risk. The major threats to achieving health security in Nigeria by the year 2050 when its population is expected to double are inadequate resources, weak health systems and poverty. While inadequate resources and weak health systems remain perennial challenges to effective and efficient healthcare delivery in Nigeria, population dynamics is mainly driven by reproductive health factors. Hence, reproductive health is a key foundation for strategies to addressing health security in Nigeria.

The ICPD, held in Cairo in 1994, arrived at a consensus view of reproductive health that was sanctioned by 165 countries, defining it as "a state of complete physical, mental and social well-being, and not merely the absence of disease or infirmity, in all matters relating to the reproductive system and its functions and processes" [1]. The definition implies that both men and women have the rights to be informed of, and have access to safe, effective, affordable and acceptable methods of fertility regulation of their choice and rights to have access to appropriate health care services that will enable women to go through pregnancy and childbirth safely, and provide couples with the best chance of having a healthy infant [1]. The issues of reproductive health rights do not exclude adolescents and people with physical and mental needs and those in humanitarian settings.

Nigeria continues to take the lead in the African sub-region with regards to signing on to global initiatives, while at the same time adopting, adapting and/or making policy pronouncements as to the readiness of the government to implement the tenets of the respective initiatives [1,2]. Even though the ICPD principles and benchmarks informed the Millennium Development Goals (MDGs), especially the fifth goal, the achievement of the reproductive health indices in the country remains a mirage. The Nigerian Demographic and Health Survey (NDHS) showed that there is continuing high rates of maternal and perinatal morbidity and mortality, poor contraceptive prevalence rate, high incidences of unsafe abortions and its sequelae, high rates of vesicovaginal fistula and female genital tract malignancies among other reproductive health challenges [2,3]. Perinatal mortality has long been recognized as an index of the quality of obstetric care reflecting access to basic care and life saving interventions in any given population. Perinatal mortality remains a huge global burden given that it accounts for three quarters of neonatal deaths which in turn is responsible for half of under-5 mortalities [4]. The reproductive health needs and of the older population, people with special physical and mental problems and those in humanitarian settings are equally neglected. These challenges are further aggravated by economic (high unemployment and poverty rates), sociocultural, political and religious factors. If care is not taken; these challenges would undermine gains from previous interventions and responses from governmental and non-governmental organizations and pose serious threats to the nation's health security. It is on this note that the Federal Government of Nigeria has deemed it necessary to develop a blue print for health security in reproductive health matters including perinatal health by the year 2050.

Situation analysis

Nigeria is one of the six high burden countries accounting for over 50% of the total pregnancy-related deaths worldwide [5]. The recent national data by the National Population Commission estimates the maternal mortality ratio (MMR) for Nigeria to be 576 deaths per 100,000 live births [3]. Most pregnancy related deaths in Nigeria are linked largely to preventable causes such as prolonged obstructed labour, eclampsia, post-delivery infection and haemorrhage [6]. Other associated factors are the low contraceptive utilisation rate resulting in unintended pregnancies and unsafe abortion.

Recent perinatal mortality data provided by research studies and population surveys in the 2013 NDHS in Nigeria reported the perinatal mortality rate as 41 per 1000 pregnancies [3]. Facility based studies reported consistently high perinatal mortality rates that ranged from 62.7 per 1000 live births to 81 per 1000 live births [7-11].

Nigeria is the most populous country in the African region with a population of over 180 million and a Total Fertility Rate of 5.5 per woman [3]. If nothing is done to reverse the demographic momentum, Nigeria is set to double its population in 22 years [6]. Contraceptives utilisation rate for modern methods has remained persistently low stagnating at 10% among currently married women with variation across regions (2.7% in the North East versus 24.9% in the South West), age group (4.8% among all women aged 15-19 years versus 14% among women age 40-44), educational level (1.7%

for women who had no education versus 22.4% for *those who had more than secondary education*) and wealth quintile (0.9% for women in the lowest wealth quintile versus 23.4% in the highest); overall, unmet need for family planning is reported to be 16% [3].

Unsafe abortion also contributes to the high level of maternal deaths in Nigeria. Recent data indicate that approximately 1.25 million induced abortions occurred in Nigeria in 2012 which translates to 33 abortions per 1,000 women aged 15-49 years. About 212,000 women were treated for complications of unsafe abortion while 285,000 experienced serious health consequences but did not receive the treatment they needed. Regional abortion rates varied widely with the lowest in the North Central and South West zones (27 per 1,000 in each) and the highest in the North East (41 per 1,000) and South South (44 per 1,000) [12].

In the last three decades, sexually transmitted infections most especially HIV &AIDS has remained a global health challenge affecting people from all walks of life, decimating the future generation and most productive segments of the population particularly young people. Over 3.6 million Nigerians are living with HIV and the country has the second highest burden of the infection, 10% of new HIV infections and 14% of HIV-related deaths in the world in 2013 [13]. Nationally, the HIV prevalence in the general population is 3.0% which is lower than 3.6% reported in 2007. The HIV prevalence is higher among women (3.5%) and those aged 35-39 years old (4.4%) compared to men (3.3%) and those aged 15-19 years old (2.9%) [14]. There is significant variation in the sero-prevalence rate at the regions with the North West having the lowest value of 1.9% compared to 5.8% in the North Central zone while six states – Akwa Ibom, Kaduna, Benue, Oyo, Lagos and Kano account for approximately two fifth of people living with HIV in Nigeria [15].

The results of the national HIV sentinel survey showed that the HIV sero-prevalence rate among pregnant women increased over the years from 1.8% in 1991 to peak at 5.8% in 2001 with a gradual decline to 3.0% in 2014. Nigeria has the highest number of mother-to-child transmission of HIV in the world and consequently the highest infections among pregnant women and children. Only 17% of all pregnant women were counselled and tested, 20.2% received anti-retroviral drugs and 6.2% of infants born to women living with HIV received prophylaxis [6,16]. This has grave implication resulting in a growing cohort of adolescents and young people who were infected with HIV through MTCT route.

With regards to other sexually transmitted infections (STIs), there is limited data but findings from the National Demographic Health Survey revealed that 8% of women and 4% of men reported that they had symptoms of a sexually transmitted infection (STI) 12 months prior the survey [3]. The self-reported prevalence of STIs and associated symptoms was highest among never-married women (15%) while educated females where twice as likely to report STIs or STI symptoms compared to their non-educated counterpart. With regards to geographical variations, women in the South East had the highest prevalence (15%) compared to zones. Health seeking behaviours was very poor; women (27%) were less likely than men (20%) not to seek advice or treatment for their STIs [3].

Cancers of the reproductive systems are emerging as major health problems in Africa due to the epidemiological transition [17]. The incidence of cancer in Africa is projected to reach 1.28 million cases annually and claim 970,000 lives yearly by 2030. In Nigeria, breast and cervical cancers are the leading causes of cancer-related deaths in women while for men, it is prostate cancer [18].

Harmful traditional practices such as early child marriage, female genital mutilation and gender based violence have grave implications for the reproductive health and rights of individuals most especially women. According to the NDHS 2013, 11.6% of adolescent females in Nigeria aged 15 to 19 years were already married by the age of 15 years, a quarter of women in the reproductive age group had been circumcised and gender based violence is still prevalent [3]. These practices impact negatively on health and require concerted, multi-sectoral efforts for its elimination.

Currently, the upsurge in terrorism-related activities is posing a major threat to access to the reproductive health services in several parts of the country with the possibility of reversing some of the gains achieved in previous years. The neglect of the reproductive health needs of special populations like the aged, people living with disabilities and internally displaced persons remains another major challenge. Male involvement in meeting the reproductive health needs of their partners is low. In addition, current RH services do not sufficiently address men's RH needs.

Table 1: SWOT ANALYSIS

Strenghts	Weakness
• Availability of reproductive health policy. • The current policy has consideration for special populations. e.g. aged, people with disabilities, people in humanitarian settings. • Operations of three tiers of government with emphasis on PHCs approach to health care delivery • Capacity for training and availability of reproductive health experts. • Availability of governmental and non-governmental organisations who are engaged in reproductive health related issues. • Availability of reliable sources of reproductive health information e.g. DHS, NARHS, HIV Sentinel Survey etc • Adoption of Family life and HIV education into school curriculum. • Availability of reproductive health indicators for monitoring and evaluation. • Adoption of Integrated Reproductive Health, Maternal, Newborn, Child and Adolescent Health Strategy (RMNCAH). • Adoption and implementation of the Task Shifting policy • Establishment of Health Insurance Scheme	• Poor implementation of reproductive health policy. • Ineffective health governance structure and poor enabling environment for implementation. • Poor coordination of reproductive health services/ programmes among the three tiers of government and donor partners within the countries. • Inadequate access to reproductive health information • Poor integration of reproductive health services. • RH programmes are not driven by evidence-based information • Poor government priority and funding for RH research • Lack or ineffective monitoring and evaluation of reproductive health services/initiatives. • Lack of evaluation of existing reproductive health programmes e.g. school health, FLHE, Family planning services. • Harmful traditional practices still entrenched in culture and religion. • Government's failure in funding or supporting RH programme. • Lack of sustainability of existing reproductive health programmes. • Poor engagement of reproductive health experts in the planning, implementation and evaluation of reproductive health services. • Lack of awareness and practice of reproductive health rights. • Lack of or reduced funding by the government/ relevant stakeholders. • Neglect of out-of-school youth in ASRH programmes • Inadequate facilities for RH service delivery e.g. • Inadequate Human Resources for RH • Poor enabling environment for RH service delivery at PHC level e.g. road network, infrastructure • Catastrophic out-of pocket expenditure • High cost of RH services • Poor attitude of healthcare workers • Poor healthcare seeking behaviours
Opportunities	**Threats**
• Availability of international development policies and frameworks. • Availability of agencies/development partners with interest in or special consideration for reproductive related issues or target populations. World Bank, WHO, Centre for Disease Control. • Adoption and endorsement of global agenda on reproductive health goals and strategies e.g. ICPD, MDGs, Sustainable Development Goals (SDGs) etc • Leveraging on the goodwill of corporate bodies, philanthropists, religious and traditional institutions to advance RH • Promoting Public Private Partnership Initiatives	• Government over-dependence on funding from donor agents • Partners/donor's interest in vertical programming/lack of integration in donor programmes. • Lack or inadequate involvement of relevant stakeholders in reproductive health activities like the academia. • Poor/late responses to global agenda related to reproductive health issues. • Lack of implementation of Abuja declaration of 15% National budget allocation to public health by 2015. • Insufficient/reduced international support from donors. • Rising wave of terrorism, insurgency, religious, ethnic and political upheaval

Table 2: Forecast for Key Reproductive Health Indicators (2019- 2050)

	Selected Indicators	Current status based on available national data	Year 2030	Year 2040	Year 2050	Assumption
1.	Total Fertility Rate (total births per woman)	5.5 **	4.3	3.1	2.1	Reduce the total fertility rate by at least 0.6 children every five years in line with the National Policy on Population for Sustainable Development
2.	Contraceptive prevalence (Modern method)	10%**	35%	55%	75%	Increase the contraceptive prevalence rate for modern methods by at least two percentage points per year in line with the National Policy on Population for Sustainable Development
3.	Unmet Need for FP	16**	12	8	4	Reduction by 25% every 10 years
4.	Maternal Mortality ratio (maternal deaths per 100,000 live births)	576 **	70	50	20	Target for 2030 in line with the SDGs
5.	Percentage of pregnant women receiving antenatal care from a skilled provide	60.6%**	75%	90%	100%	
6.	Births attended by skilled personnel	38%**	55%	75%	90%	
7.	Proportion of health care facilities providing basic emergency obstetric care services per 500,000 population	18.5%[$]	50%	70%	90%	The 2017 Reproductive Health Policy targets at least 80% by 2021
8.	Perinatal mortality rate (per 1,000 pregnancies)	41 **	10	8	6	
9.	Neonatal mortality rate (per 1,000 pregnancies)	37**	12	7	5	Target for 2030 in line with the SDGs
10.	Still birthrate (per 1,000 pregnancies)	---	10	8	6	
11.	Percentage of live births that weigh less than 2500g.	15.2%[##]	10%	5	2	
12.	Percentage of pregnant women (15–24) attending antenatal clinics, whose blood has been screened for syphilis, with positive serology for syphilis	0.7[+]	0.5	0.3	0.1	
13.	Percentage of women of reproductive age (15–49) screened for Qhaemoglobin levels with levels below 110 g/l for pregnant women and below 120 g/l for non-pregnant women	58%[#]	40%	25%	10%	Reduce anaemia in pregnant women by 25% every 10 years

14.	Abortion treatment rate (Women treated for abortion complications per 1,000 women of reproductive age)	5.6 [++]	4.5	3.0	1.0
15.	Reported prevalence of women with FGM	25%[**]	17	9	0
16.	Percentage of women of reproductive age (15–49) at risk of pregnancy (not pregnant, sexually active, non-contraception and non-lactating) who report trying for a pregnancy for two years or more.	3%[**]	2%	1%	0.5%
17.	Percentage of men who reported having STIs in the past 12 months	1.6%[**]	1.0%	0.5%	0.5%
18.	Percentage of women who reported having STIs in the past 12 months	3.9%[**]	3.0%	2.0%	1.0%
19.	Percentage of pregnant women (15–49) attending antenatal clinics who are sero-positive for HIV.	3%[*]	2%	1%	0.5%
20.	Percentage of mothers who received ARV/ART	58.2[55]	70%	80%	100%
21.	The percentage of all respondents who correctly identify all three major ways of preventing the sexual transmission of HIV and who reject three major misconceptions about HIV transmission or prevention.	37.4%[**]	50	75	100

Source of data

[**]National Population Commission, Nigeria

[*]World Health Organisation, Global Health Observatory Data Repository

[**] Federal Republic of Nigeria, National Bureau of Statistics and UNICEF. Nigeria Multiple Indicator Cluster Survey 2011

[*]National Agency for the Control of AIDS

[++]Bankole, A., Adewole, I. F., Hussain, R., Awolude, O., Singh, S., & Akinyemi, J. O. (2015). The incidence of abortion in Nigeria. International perspectives on sexual and reproductive health, *41*(4), 170

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[55]Federal Ministry of Health 2016 National Health Facilty Survey,Saving One Million Lives Programme for Result

Table 3: Short, Medium and Long Term Plan (2019- 2050)

	Priority areasAREAS	Objectives	Targets by Year 2030	Targets by Year 2040	Targets by Year 2050	Deliverables
1.	Achieving desired and intended fertility	To reduce Total Fertility Rate by at least 0.6 children every five years	4.3	3.1	2.1	Reduction in total fertility rate to replacement level
2.		To increase contraceptive prevalence (Modern method) by at least two percentage points per year	35%	55%	75%	At least three quarter of married women adopt modern contraceptives
3.		To reduce Unmet Need for FP	12	8	4	All women who require contraceptive methods have access to services
4.	Reduction in maternal, neonatal and child morbidity and mortality	To reduce maternal mortality	70	50	20	Reduction in maternal mortality
5.		To increase percentage of pregnant women receiving antenatal care from a skilled provider	75%	90%	100%	All pregnant women receive ANC from skilled birth personnel
6.		To increase births attended by skilled personnel	55%	75%	90%	Nine out of every 10 births attended by skilled personnel
7.		To increase proportion of health care facilities providing basic emergency obstetric care services per 500,000 population	50%	70%	90%	At least nine out of every 10 health facilities equipped to provide BEOC
8.		To reduce perinatal mortality pregnancies)	10	8	6	Reduction in perinatal mortality
9.		To reduce neonatal mortality rate	12	7	5	Reduction in neonatal mortality
10.		To reduce the percentage of live births that weigh less than 2500g.	10%	5	2	Reduction in low birth weight
11.		Percentage of women of reproductive age (15–49) screened for haemoglobin levels with levels below 110 g/l for pregnant women and below 120 g/l for non-pregnant women	40%	25%	10%	Reduction in anaemia in pregnancy to at least one out of every 10 women
12.		Abortion treatment rate (Women treated for abortion complications per 1,000 women of reproductive age)	4.5	3.0	1.0	Reduction in the complications of abortion to almost zero

13.	Control of sexually transmitted infections including HIV	Percentage of pregnant women (15–49) attending antenatal clinics who are sero-positive for HIV.	2%	1%	0.5%	Reduction in percentage of HIV positive pregnant women to almost zero level
14.		The percentage of all respondents who correctly identify all three major ways of preventing the sexual transmission of HIV and who reject three major misconceptions about HIV transmission or prevention.	50	75	100	Achieve comprehensive knowledge of HIV transmission and/or prevention
15.	Elimination of harmful practices	Repoted prevalence of women with FGM	17	9	0	Total elimination of FGM

Strategies to prevent maternal and perinatal Mortality

The continuum of care model for reproductive health, maternal, newborn and child health refers to continuity of individual care throughout the life cycle (childhood, adolescence, pregnancy, childbirth and postnatal period) and between points of provision of care including households, communities, health facility settings and outreach services. The model is illustrated in Figure 1. These services are to be delivered in an integrated manner rather than through vertical programmes. This model fits in with the strategic objectives of the WHO's Every Newborn action plan [19,20] which are to:

1. Strengthen and invest in maternal and neonatal care to include care during labour, birth and the first week of life.
2. Improve the quality of maternal and newborn care.
3. Reach every woman and newborn to reduce inequities.
4. Harness the power of parents, families and communities.
5. Count every newborn through measurement, programme-tracking and accountability.

For health systems to function effectively, human resource capacity, health facility infrastructure, supply systems, financial resources, governance, district level management and monitoring are components that require to be strengthened.

Monitoring and Evaluation

Existing reproductive health monitoring and evaluation (M&E) systems at the national, state and local government levels will be strengthened to track the implementation processes, outcome and impact indicators. A detailed M&E plan will be developed and this will indicate indicators and targets, data sources, data collection tools, data flow and the roles and responsibilities of key stakeholders. Data on reproductive health service delivery at the local, state and national levels will be submitted regularly to the reproductive health division of the Federal Ministry of Health (FMOH) through the relevant structures and they will coordinate all M&E activities at the national level. In addition, a comprehensive national reporting system will be developed to capture health and non-health sector data on RH interventions using a multi-sectoral technical working group.

At the end of the implementation of the short, medium and long term plans, the FMOH in collaboration with relevant Ministry, Departments and Agencies such as the National Population Commission and the National Agency for the Control of AIDS will evaluate the interventions using standards tools to objectively and effectively assess the extent of implementation of the blueprint in line with the agreed objectives and performance indicators. Other existing national surveys *(i.e. the Nigeria Demographic Survey, HIV sentinel survey)* will be leveraged upon to track the impact of the interventions. The FMOH will ensure the timely dissemination of the progress/impact evaluation reports in line with the forecast and projections for 2050.

Sources of funding

Funding will be mobilized from the government at every level through their budgetary processes. Other sources shall include global financing facility and National Health Act through the basic health provision fund, Insurance Health Scheme at national and state levels, SDGs funds, Social Investment and the reconstruction of North East budget for the provision of RH services for victims of insurgencies and IDPs. In addition, funds will be mobilized from partners, including private sector organization e.g. Telecommunication, Banking and Oil and gas Industries; philanthropists, indigenous and international development partners. Communities will also be involved in contributing to funding of RH services as part of their roles in partnering with the government.

Conclusion

The huge burden of reproductive health care has been neglected for far too long. Intricately linked with maternal mortality, the high rates of newborn deaths in LMICs reflect underlying problems of poverty and social inequities. Reduction of the huge numbers of preventable maternal and newborn deaths require pragmatic scale up of known cost-effective interventions delivered within the context of existing health care infrastructure with the active participation of an empowered community.

The country must be committed to reproductive health agenda that is focused on the ICPD goal in its bid to achieve health security by the year 2050. Due considerations must be accorded to emerging reproductive health issues like men's reproductive health and their involvement in their partners' reproductive health, and the reproductive health needs of the aged, people with disabilities and those in humanitarian settings. Further in achieving health security for Nigerians by the year 2050, the principles underlying the reproductive health policy of the country must be upheld. These include equity, right based approach, gender and age responsiveness, cultural sensitivity and continuum of care.

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