Role of Reproductive Health Commodity Security on Maternal and Child Health Care in the West African Sub-Region

***Adinma ED**

ABSTRACT

Background: *Maternal health is a foremost component of reproductive health requiring global attention on account of the burden of maternal and child mortality. Reducing maternal, infant and child mortality are key targets of the United Nations Millennium Development Goals achievable primarily through an effective and sustained reproductive health commodity security.*

Objective: *To review the relationship between maternal and child health and Reproductive health commodity security with emphasis on contraception; the current state of contraceptive commodity security in some countries in West Africa; and the options for strengthening Reproductive health commodity security.*

Methods: *A Medline search and search of other internet search engines for published studies on contraceptive commodity security and maternal and child health in West Africa was done. The journals were accessed online and from public libraries.*

Results: *Contraceptive prevalence rate in West Africa is generally low. Countries with high contraceptive prevalence rate have low maternal and child mortality. Contraceptive usage has markedly improved in few countries but is generally low compared to other parts of the world. Unmet need for contraception is high. Options for strengthening contraceptive commodity include adopting policies and regulations that support family planning and women's rights; lifting restrictions that affect family planning service providers and prescribing practices, amongst others.*

Conclusion: *The effective adoption of strategies that strengthen reproductive health commodity security would improve family planning services, increase contraceptive prevalence rate, and result in an overall reduction in maternal and child mortality in the West African sub-region.*

Key Words: *Reproductive health commodity security, West Africa*

Afrimedic Journal 2011;2(1):1-7

INTRODUCTION

Reproductive health has been defined within the context of the positive definition of health as contained in the constitution of World Health Organization as a complete state of physical, mental, and social well-being and not merely the absence of disease or infirmity of reproductive system, function, and processes.[1,2] Reproductive health has tremendous burden on women and young people. Maternal health represents a foremost component of Reproductive health requiring global attention on account of the burden of maternal and child mortality. Globally, over 50 million women suffer from poor reproductive health and serious pregnancy-related illness and disability.[3] World Health Organisation estimates that approximately 536,000 women die of pregnancy and childbirth-related complications each year with 95% of these deaths occurring in sub-Saharan Africa and Asia.[4] Amongst all public health statistics, maternal mortality has been recognized to exhibit the widest discrepancy between developed and developing nations. Furthermore, it constitutes a manifestation of the disparity and inequity between men and women, and of women's place in society.[5] Regional variations occur in maternal mortality with high figures in developing countries of sub-Saharan Africa and low figures in developed countries. Maternal mortality ratio (MMR) in West Africa is 1,100/100,000 live births compared with 190/100,000 in Latin America and 280/100,000 in Asia. Some developed countries have maternal mortalities as low as 5-10/100,000 live births.[6] In Nigeria for example, 59,000 maternal deaths occur annually. This represents more than 10% of global maternal mortality. This is in spite of the fact that Nigeria accounts for under 2% of the world's population.[7] Infant, child, and under five mortalities also adopt a similar pattern as maternal mortality with Nigerian figures as high as 88, 100, and 157 per 1,000 live births respectively from the Nigerians 2008 National Demographic and Health Survey.[8] Women in high-fertility countries in sub-Saharan Africa have a 1-in-13 lifetime risk of dying from maternal causes. This is in contradistinction to relatively lower values obtained for low-fertility countries of Europe, and North America, who have 1-in-2,000 and 1-in-3,700 risk of dying respectively.[9-13]

One key approach to maternal mortality reduction is family planning services. Recently, family planning has re-emerged as a foremost contemporary global reproductive health issue largely on account of its implication to world's population dynamics. It refers to the control of world population in relation to the available food and economic resources, and often has been used synonymously with contraception.[14,15] Contraception reduces maternal mortality through the lowering of the absolute number of women getting pregnant especially those that would have had unwanted or unintended pregnancies and become potential victims of unsafe abortion and abortion mortality. A vital indicator of family planning utilization is contraceptive prevalence rate. Contraceptive prevalence rate is low in most countries of sub-Saharan

**Department of Community Medicine, Nnamdi Azikiwe University and Teaching Hospital, P.M.B. 5025, Nnewi, Anambra State, Nigeria.*
E-mail: *drechenduadinma@yahoo.com*

Africa. In Nigeria for instance, over the past ten years contraceptive prevalence rate had increased only from 8.6% to 14%, figures considered to be low by all standards. [8, 16]

The International Conference on Population and Development (ICPD) held in Cairo, Egypt, in 1994, highlighted the objective of universal access to reproductive health by 2015. This was further captured as the second target of the fifth component of the United Nations Millennium Development Goals.[17] Many countries will not be able to meet the ICPD goal and MDG target, of universal access to reproductive health services by 2015 unless they have secure supplies of contraceptives and other reproductive health commodities. Reproductive Health Commodity Security (RHCS) is defined as a secure supply and choice of quality contraceptives and other reproductive health commodities to meet every person's needs at the right time and in the right place. Commodity security is the coordination of effective systems to ensure that every person is able to choose, obtain, and use quality contraceptives and other reproductive health products whenever he/she needs them. Efforts have to be accelerated significantly, including ensuring reproductive health commodity security, for maternal mortality to be reduced by three quarters and child mortality by two thirds by the target date of 2015 the targets set by the Millennium Declaration. [18, 19]

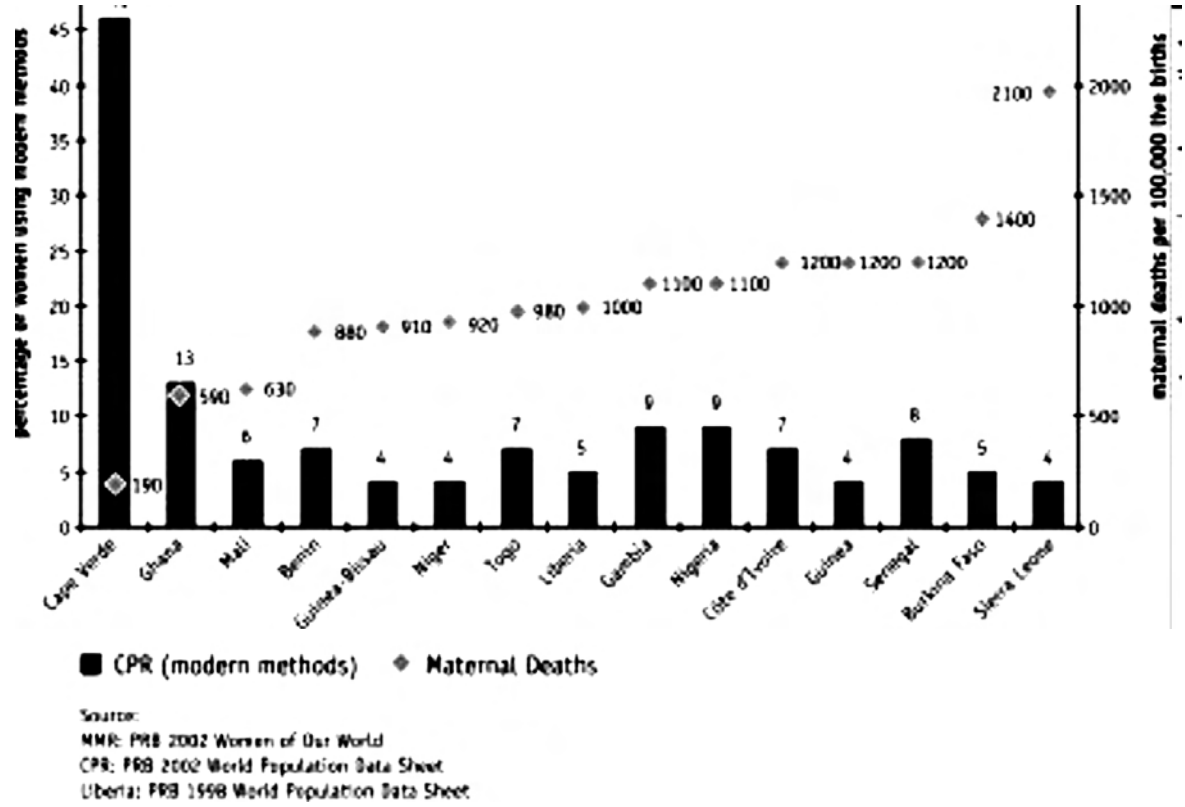
This review is aimed at highlighting the relationship between maternal and child health and Reproductive health commodity security with emphasis on contraception; the current state of contraceptive commodity security in some countries in West Africa; and the options for strengthening Reproductive health commodity security to support maternal and child health. The knowledge of this is expected to guide the government, health policy makers, and donor agencies towards ensuring reproductive health commodity security that will facilitate an improvement in maternal and child health in the sub-region, which will ultimately facilitate the achievement of goals numbers 4 and 5 of the Millennium Development Goals.

Contraceptive Commodity Security and Maternal and Child Health in West Africa

Reduction in maternal mortality constitutes a major challenge to most developing countries. Major approaches to reducing maternal mortality include - access to family planning, good antenatal care, availability of skilled personnel, and emergency obstetric care. Family planning programmes can reduce maternal mortalities in several ways viz at national level, by reducing absolute number of pregnancies; it will invariably effect an overall reduction in maternal deaths. In addition, when targeted at the highly vulnerable groups - the too young, the too old, and women of high parity, considered to be high risk groups, will reduce maternal mortality. Unsafe abortion contributes immensely to maternal mortality, accounting for 12 % to 40 % of maternal deaths. WHO estimates that 55,000 unsafe abortions occur everyday all over the world resulting in the death of about 200 women daily. Altogether, approximately 80,000 maternal deaths occur annually from unsafe abortion. [20,21] Preventing unwanted pregnancy through the effective usage of high quality contraceptive commodities will undoubtedly contribute to the reduction of maternal mortality. Generally, a combination of family planning and abortion services especially for high risk women might effectively address about half of the maternal mortality in the developing world.[22]

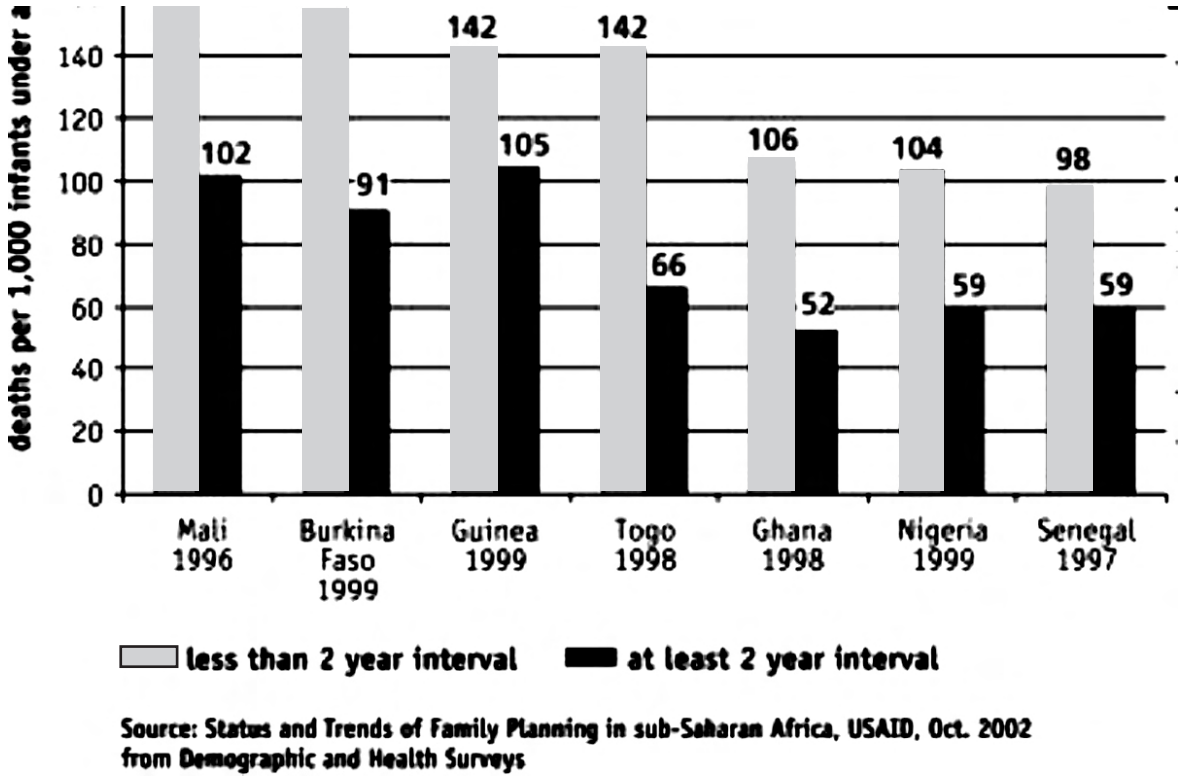
A significant way of improving maternal and child health is by increasing the interval between births through an effective and high quality family planning method. Contraceptive prevalence rate which is a measure of the effectiveness of family planning services has been shown to relate to maternal mortality. Figure I below shows the relationship between Contraceptive Prevalence Rate (CPR) and maternal mortality ratios in some countries in West Africa. Increased family planning use CPR correlates with reduced maternal mortality. The relationship between CPR and level of maternal mortality ratio is particularly striking in Cape Verde and Sierra Leone. The former has the highest CPR and lowest Maternal Mortality Ratio (MMR) while the latter has the lowest CPR and highest maternal mortality ratio.

Figure I: Contraceptive Prevalence Rate compared to Maternal Mortality



Worthy of note also is the fact that improved family planning services benefit infant and child health. As shown in Figure II, when mothers space their births at least two years apart, infant mortality is significantly reduced. With birth intervals greater than two years, Mali and Guinea reduced her infant mortality by 45 % and 26 % respectively.

Figure II: Infant Mortality by Birth Interval

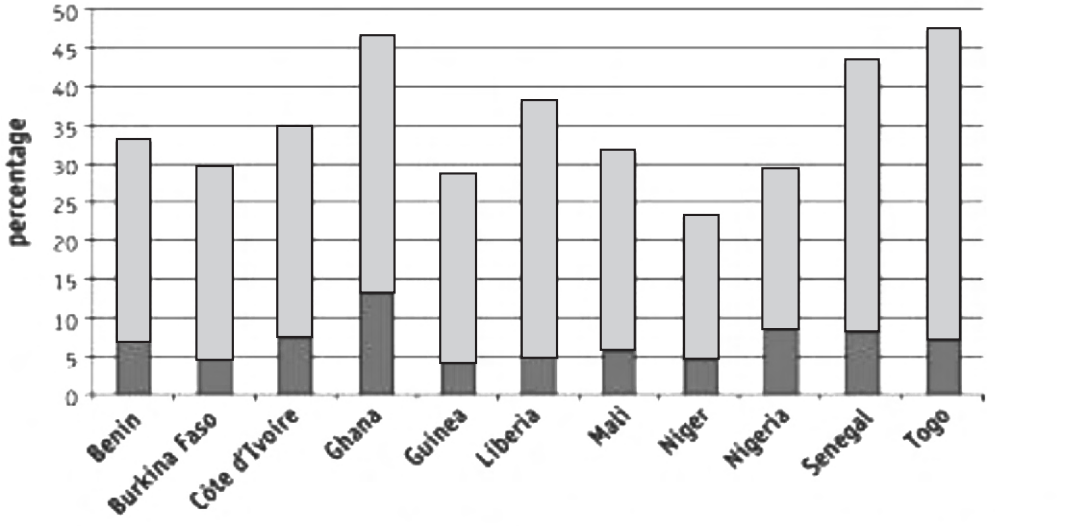


Source: Status and Trends of Family Planning in sub-Saharan Africa, USAID, Oct. 2002 from Demographic and Health Surveys

Status of contraceptive commodity security in West African countries

The sub-region has made significant progress in increasing the use of family planning services over the last decade. CPR doubled in a number of countries. However, it remains lower than other regions of the world including the rest of sub-Saharan Africa 8% CPR compared with 13% in sub-Saharan Africa. Figure III shows that the use of family planning is still low and unmet need is high. If these women had access to, and were using quality contraception, there would be corresponding declines in maternal and infant mortality rates.

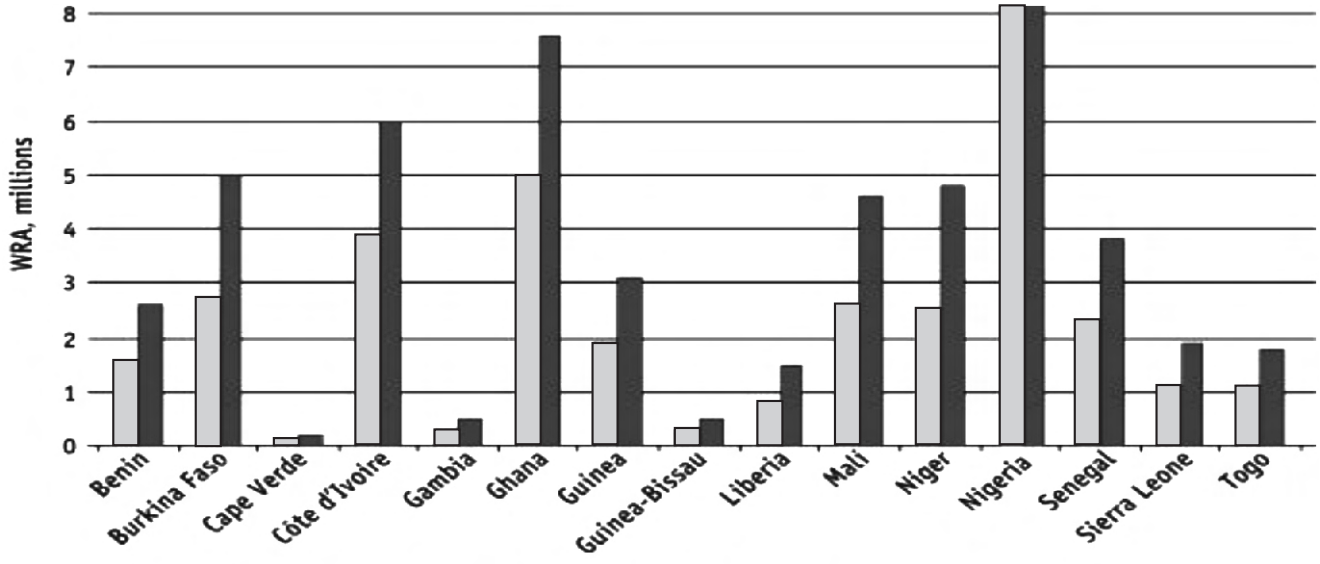
Figure III: Contraceptive Prevalence and Unmet Need for Family Planning



Source: CPR, Demographic and Health Surveys and unmet need, Profiles for Family Planning and Reproductive Health Programs (The Futures Group International)

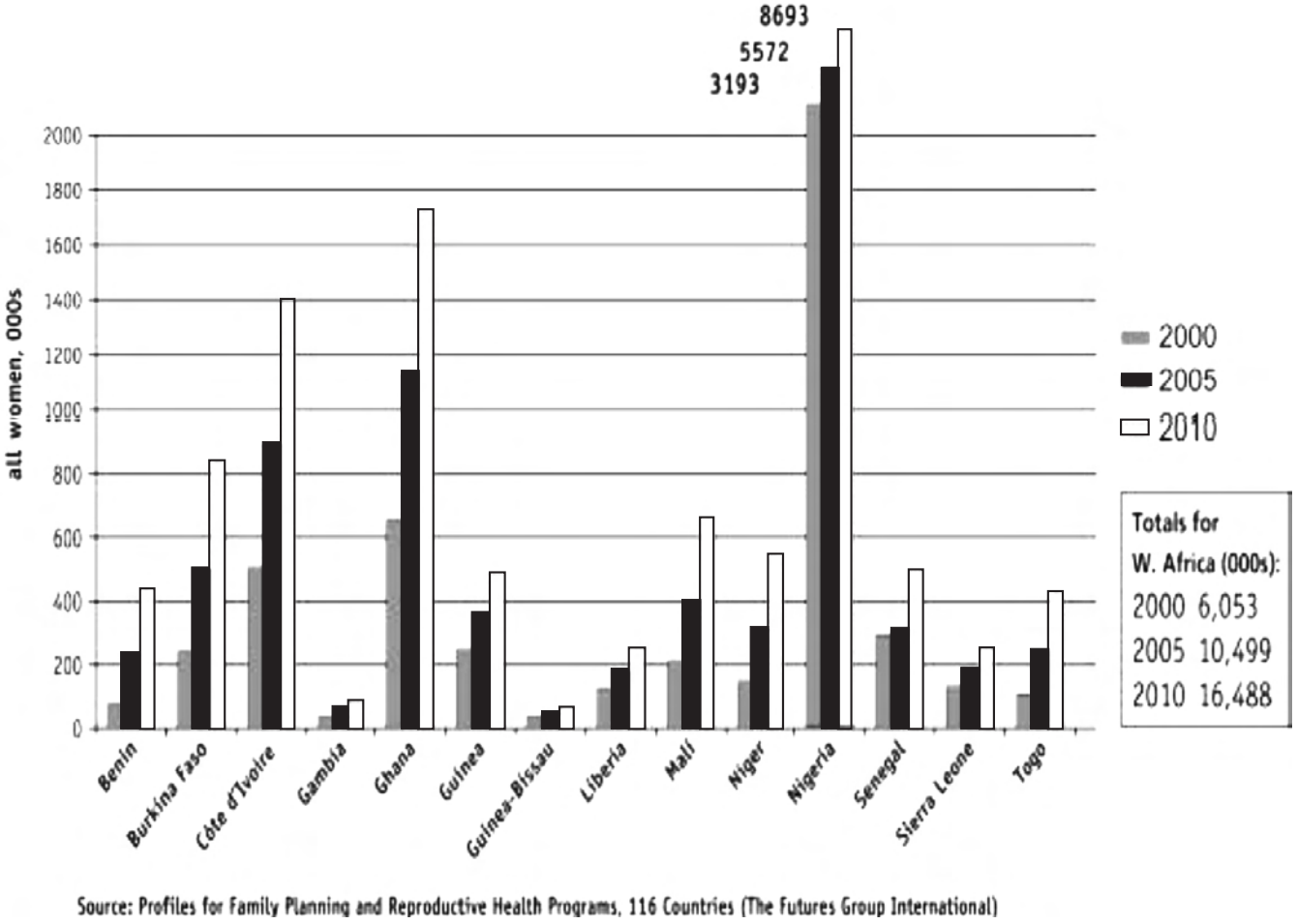
When this situation is viewed in the light of the large population projection of women in the reproductive age group of 15-49 years as shown in Fig. IV, it is obvious that the number of users of reproductive health services and products would invariably increase as shown in Fig. V below.

Figure IV: Projected growth of women of reproductive age in West Africa: 2002-2020



Source: PRB 2002 Women of Our World

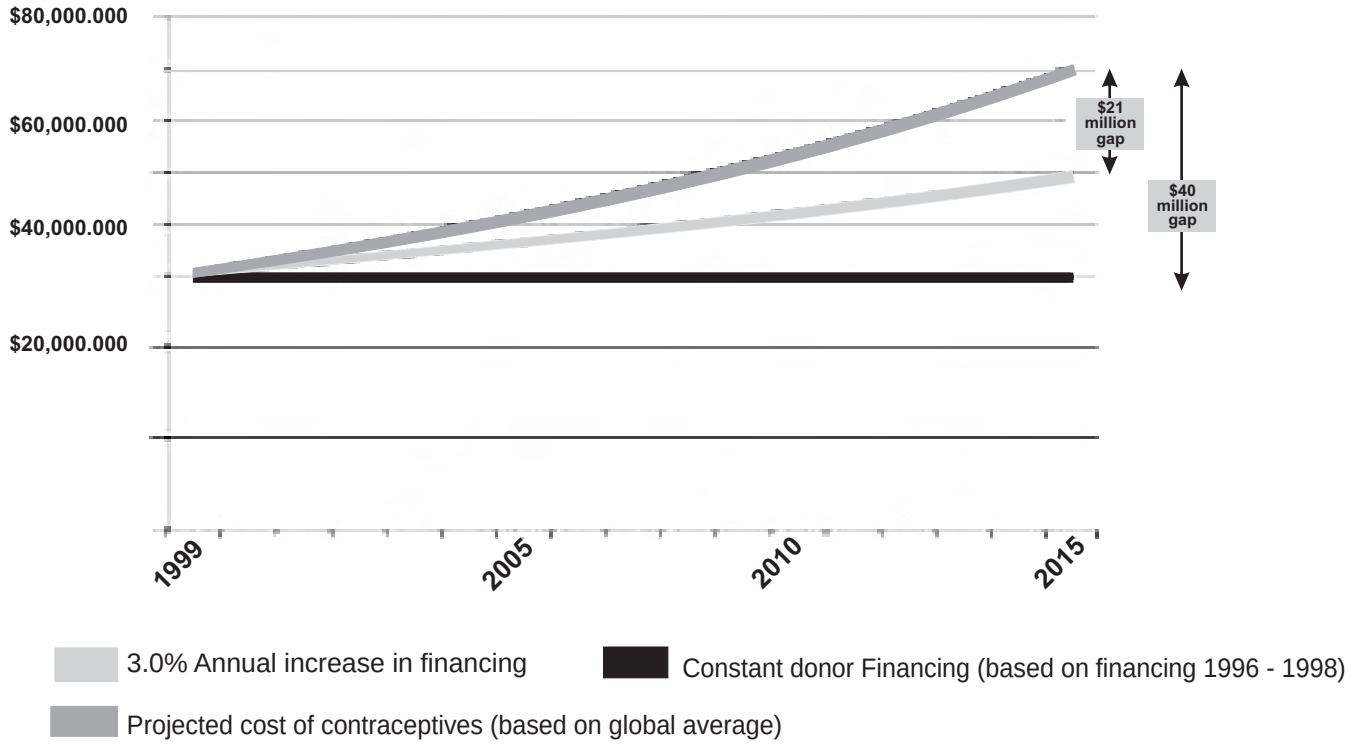
Figure V: Projected numbers of contraceptive users



Source: Profiles for Family Planning and Reproductive Health Programs, 116 Countries (The Futures Group International)

In addition, this growth in the number of contraceptive users has important financial implications. The cost of the commodities increases as use increases. Estimates show that the funding required for contraceptive commodities will more than double over the next fifteen years. This funding usually comes from a combination of sources - governments, donors, and clients. Donor agencies have played leading roles in most West African countries in funding these family planning services and commodities. Unfortunately, while the amount of funding required to finance these services and products will increase, donor funding, which has been unstable in recent years, does not appear likely to keep pace with the funding requirements. FigureVI reveals that if current trends in donor support are maintained, in the next decade the funding shortfall will be colossal.

Figure VI: Donor financing for contraceptives compared to projected needs in West Africa



Source: Contraceptive Projections and the Donor Gap (The Futures Group International)

Options for strengthening contraceptive commodity security to support maternal and child health

A number of strategies and process improvements should be undertaken to ensure that people are able to choose, obtain, and use reproductive health commodities whenever they need them. There are cross-cutting issues, including policies and resource mobilization, that impact on these strategies and processes. These should be included in any effort to enhance reproductive health commodity security.

Countries in the sub-region should adopt policies and regulations that support family planning and women's rights. They should in addition lift restrictions that affect family planning service providers and prescribing practices. Adequate funding to support reproductive health commodity security is a foremost cornerstone of any national reproductive health funding. Therefore, budgetary allocations for reproductive health services and commodities should be sufficient. Nations should create line item budget for family planning and other reproductive health commodity security activities within their reproductive health budget. Tariffs, taxes, and duties of family planning commodities should be waived or reduced to a minimum in countries of the sub-region.

Reproductive health commodity security requires a logistics system that is effective and efficient at forecasting the required commodities; procuring high quality products; adequate storage facilities for commodities; delivering of commodities in good condition; and monitoring the commodity flow from the client up the supply chain, and using the information to make key decisions. This requires adequate number of human resources, effective data management, sufficient warehousing, and good transportation to provide timely distribution of commodities at various levels of the supply chain.

Coordination of reproductive health activities including family planning commodities among key stakeholders and markets facilitates commodity security by leveraging resources and avoiding duplication of efforts. Premium should therefore be placed on effective coordination between government, donors, and implementing agencies to minimize overlap, as well as mobilize additional resources.

CONCLUSION

This review has highlighted the relationship between maternal and child health and reproductive health commodity security, the current state of contraceptive commodity security in some countries in West Africa, as

well as the options for strengthening reproductive health commodity security. The options discussed in this review have the potential to improve reproductive health commodity security and invariably contribute to improving maternal and child health within the sub-region.

REFERENCES

1. Fathalla MF. Promotion of Research in Human Reproduction: Global Needs and Perspectives. Human Reproduction, 1988; 3: 7-10.
2. Akande EO. Components of Sexual and Reproductive Health and Rights. Guest Lecture at the Curriculum Review Meeting on Reproductive Health, Ota, Nigeria. 22-25 February 2001.
3. WHO, UNICEF, UNFPA. Maternal Mortality in 1995. Estimates Developed by WHO, NICEF, and UNFPA. Geneva. WHO. WHO/RHR/01.9.
4. World Health Organisation (WHO): Maternal Mortality in 2005: Estimates Developed by WHO, UNICEF, UNFPA, and the World Bank. Geneva, WHO; 2007.
5. Starrs A. The Safe Motherhood Action Agenda: Priorities for the Next Decade. Report on the Safe Motherhood Technical Consultation, 18-23 October 1997 Colombo, Sri Lanka. New York, NY: Family Care International, 1997: 94.
6. Population Reference Bureau (PRB). 2002. 2002 Women of Our World. Washington, DC: PRB.
7. Federal Ministry of Health (FMOH), Nigeria. Road Map for Accelerating the Attainment of the Millennium Development Goals Related to Maternal and Newborn Health in Nigeria. Abuja, FMOH; 2005.
8. National Population Commission (NPC) {Nigeria}and ICF Macro. (2008). Nigeria Demographic and Health Survey 2009. Calverton, Maryland: National Population Commission and ICF Macro.
9. World Health Organization. Maternal Mortality in 2005: Estimates Developed by WHO, UNICEF, UNFPA, and the World Bank. Geneva, WHO; 2007.
10. Takrouri MS. Reproductive Health: The Issues of Maternal Morbidity and Mortality. The Internet Journal of Health. 2004; 3 (2).
11. Department of Health, Welsh Office, Scottish Office Department of Health, Department of Health and Social Services, Northern Ireland. Report on Confidential Enquiries into Maternal Deaths in the United Kingdom 1994-1996. London: HMSO, 1998.
12. Bogod DG. A Long and Dangerous Journey: Maternal Mortality in Africa. Anaesthesia 1999; 54 (11):1025-1027.
13. Cooper GM, Lewis G, Neilson J. Confidential Enquiries into Maternal Death 1997-1999 (Editorial) BJA 2002;89 (3): 369-372.
14. Adinma JIB: Reproductive Health Problems in Nigeria: An Overview with Focus on Family Planning. Tropical Journal of Medical Research; 1998; 2/1: 7-11.
15. Adinma ED, Adinma JIB. Family Planning in Contemporary Reproductive Health and Rights. Tropical Journal of Obstetrics and Gynaecology. 2010 (In press).
16. National Population Commission (Nigeria). Nigerian Demographic and Health Survey 1999 (Nigeria DHS 1999). Calverton, Maryland: National Population Commission and ORC/Macro, 2000.
17. United Nations. Millennium Development Goals. New York, NY: United Nations, 2004. http://www.un.org/millenniumgoals (Accessed 15 November 2010).
18. Haines A, Cassels A. Can the Millennium Development Goals be Attained? BMJ, 2004; 329: 394397.
19. Nullis-Kapp C. The knowledge is there to achieve development goals, but is the will? Bulletin of the World Health Organization, 2004; 82:804805.
20. Adinma JIB. Policy prescription for reducing maternal mortality in Nigeria. Lead Lecture presented at a stakeholders' forum on Reproductive Health by the Independent Policy Group (IPG)/EHANSE at Kano, Nigeria, 20th April 2006.
21. World Health Organization. Unsafe abortion: Global and regional estimates of incidence of and mortality due to unsafe abortion with a listing of available country data. Geneva: WHO, 3rd Edn., 1997, WHO/RHT/MSM/97. 16, 3-14.
22. World Health Organization. Advancing safe motherhood through human rights. WHO/RHR/01.5.