IMPLEMENTING FOCUSSED ANTENATAL CARE IN SUB-SAHARAN AFRICA: AN IMPORTANT AND NECESSARY STRIDE TOWARDS ACHIEVING THE MDGs.

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ABSTRACT

Antenatal care programmes in sub-Saharan Africa are patterned after the Western world model that was developed in Europe around the 1900s. Their components are not backed by evidence because they have not been scientifically tested. The implementation of this model in the developing countries is even of poor quality and is fraught with many problems including irregular clinic visits, long waiting times and poor feedback mechanism. The World Health Organisation has piloted a new model with reduced number of visits in low-risk pregnancies that is cost-effective, safe, more sustainable and equally effective as models with a higher number of visits.

This is a review that looked at the new WHO Antenatal care model within the context of a resource-constrained setting, and explored the issues that are likely to influence its widespread implementation in sub-Saharan Africa given the region's manpower and infrastructural constraints and the high maternal and neonatal morbidity and mortality figures. A SWOT Analysis framework was used to assess the situational analysis of antenatal care programmes in sub-Saharan Africa while the Walt and Gilson policy analysis triangle was used to analyse the feasibility of introducing the new WHO ANC model into the sub-region.

The content of the WHO model may need to be adapted to suit the prevailing context in the sub-Saharan region. Emphasis must also be placed on carefully handling the processes of the introduction by advocacy to the different actors that would be involved in the implementation of the new model.

Keyword: Focused antenatal care, sub-Saharan Africa, implementation.

INTRODUCTION

Antenatal care (ANC) programmes in sub-Saharan Africa like in much of the developing world are patterned after the so-called standard 'Western' world model, which was developed in Europe around the 1900s[1]. The implementation in the developing countries is however of poor quality with irregular clinic visits, long waiting times and poor feedback mechanism[2]. This has partly resulted in the missing link between ANC and skilled attendance at birth leading to the disturbingly poor maternal and neonatal morbidity and mortality statistics[2]. Sadly, many components of the traditional antenatal care programmes are not backed by evidence. They have not been subjected to, and therefore have not withstood, any rigorous scientific scrutiny to confirm their effectiveness[2].

The scarcity of evidence to support much of the traditional ANC programme has in turn impeded the selection and prioritisation of effective interventions, and by extension the optimal allocation of scarce resources[2] especially in low and middle-income countries. To address this gap, the World Health Organisation (WHO) designed and piloted a multi-centre randomised

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controlled trial that compared the traditional ANC model with a new WHO model[3-6]. This new model has a reduced number of clinic visits and restricts the tests, clinical procedures and follow-up actions to only those with proven effectiveness. However, it is worth mentioning that the new WHO model is targeted at only those pregnant women with no demonstrable pregnancy-related complications, medical conditions or health-related risk factors[2]. These women would generally be attended to by trained nurses, midwives and medical assistants with possible supervision by qualified physicians and Obstetricians / Gynaecologists. Antenatal care performed by midwives or general practitioners in low-risk pregnancies is cost-effective and the new WHO model has been demonstrated to be safe, more sustainable and equally effective as models with a higher number of visits[3].

The aim of this review is to look at the new WHO Antenatal care model within the context of a resource-constrained setting, and explore the issues that are likely to influence its widespread implementation in sub-Saharan Africa given the region's manpower and infrastructural constraints and the high maternal and neonatal morbidity and mortality figures.

It is hypothesised here that given the lean resources in sub-Saharan Africa, the new WHO model which has been found to be cheaper, cost-effective, safe and more user-friendly is more suitable for the region than the traditional antenatal care model which has not been effective enough to stimulate women to have skilled birth attendants at delivery leading to the high maternal and neonatal mortality figures, poor postnatal clinic attendance and dismal contraceptive uptake[4-6].

DEFINITION OF KEY CONCEPTS

The traditional antenatal care approach prescribes frequent visits and the women are classified by risk category to determine the chances of developing complications. This model assumes that more visits implies more care and all the women are usually seen monthly until 28 weeks of pregnancy, then every 2 weeks until 36 weeks and then weekly until delivery. A woman may therefore be seen between 12 and18 times.

In Focused Antenatal care, which emphasises quality over quantity, each antenatal visit includes interventions that are ''focused'' and appropriate to the stage of pregnancy of each woman and which addresses her overall hea lth and preparation for birth and care of the newborn. The WHO recommends four visits for a woman whose pregnancy is progressing normally but if problems or potential problems arise, the frequency of visits is tailored appropriately. The scheduled four vis its in FANC are: first visit is in the first trimester ideally but not later than the 16 weeks of pregnancy, and then at 20 -24 weeks, 28 -32 weeks and 36 weeks[5, 6].

RATIONALE OF THE REVIEW

The whole aim of ANC is to help pregnant women to remain healthy by prompt discovery and correction of adverse conditions[7]. Moreover, ANC should provide a holistic guidance to not only the women and their partners but to the entire families on the biological care and other issues bordering on the emotional, social and cultural needs of the women, their partners, babies and families during pregnancy[3, 7]. The major challenges however that remain for health policy-makers is the provision of ANC interventions which are backed by evidence, socially and culturally acceptable to women and at a level that is sufficient to deliver high-quality of care without over-burdening the health system[3]. Because of the extreme weakness of the health care delivery systems in most sub-Saharan African countries, it becomes pivotally important to identify those ANC strategies that provide the requisite quality of care to women

spread across a wide geographical area without forcing other sundry health issues to slip off the health agenda, by consuming more than the minimally required resources.

MATERIALS AND METHODS

This is a review of the relevant literature on antenatal care. A situational analysis of antenatal care programmes in developing countries would be undertaken using the SWOT Analysis framework while the Walt and Gilson policy analysis triangle[8] would be employed to analyse the feasibility of introducing the new WHO ANC model.

SWOT is an acronym for the strength, the weakness, the opportunities and the threats to a programme or organisation. The SWOT analysis is chosen to enable the elucidation of the strengths and weaknesses of the current ANC programmes in sub-Saharan Africa while also allowing the assessment of the opportunities and threats that exist to strengthening the ANC programmes. The Walt and Gilson policy analysis triangle[8] is depicted in figure 1 below.

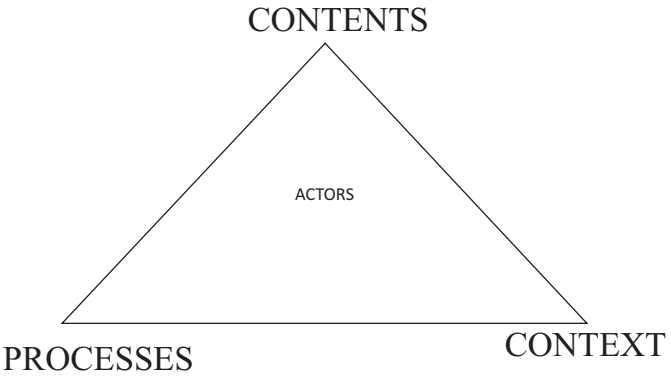

Figure 1: The Walt and Gilson Policy Analysis Triangle (1994)[8]

The components of the Walt and Gilson policy analysis framework would provide an elaborate platform to analyse the influence of the contents of the new WHO model, the context in the sub-Saharan African region, the processes and the major actors involved in the implementation of the focused antenatal care (FANC); be they government, health policy makers, health care workers, international donor organisations, professional bodies, training institutions, pregnant women and their families, the community, traditional and religious organisations. This framework would enable the analysis of the interactions and interplay of all these actors given the policy content and contextual terrain and the necessary processes that attend the introduction and implementation of a new policy[9]. Some of the actors would indeed be supportive of the introduction of the new model while others would obviously oppose it in favour of the status quo depending on their vested interest.

SITUATIONAL ANALYSIS OF ANC IN SUB-SAHARAN AFRICA

This section would use the SWOT framework for the analysis of the current state of the ANC programmes in the sub-Saharan African region.

STRENGTH

There is evidence that women have embraced the concept of antenatal care with enthusiasm wherever there are available services[4]. Many studies have shown that the level of acceptance of antenatal care in sub-Saharan Africa far exceeds those of delivery services and coverage is also rising[4].

In many settings in Africa, the antenatal care period may represent the first point of contact with health care workers. This makes antenatal care the privileged entry point for many programmes of public health importance; voluntary counselling and testing for HIV, Prevention of mother to child transmission (PMTCT) of HIV, Intermittent preventive

treatment (IPT) for malaria and advice for use of insecticide-treated bed nets, counselling on nutrition and screening for tuberculosis[4]. Others are family planning counselling for child spacing and cervical cancer screening. However, this advantage of antenatal care is underexploited[4] in most parts of sub-Saharan Africa probably because the services are not provided in an integrated manner in most facilities.

There are many facilities in the sub region that offer antenatal services. Most of these facilities have trained staff whose salaries are paid by the various governments. Other private organisations and NGOs are also involved in providing antenatal services. The real challenges lie in the fact that the distribution of these facilities are not equitable and therefore there is the need to reach those women in the rural areas, the poor and those without any education who are the most vulnerable[4].

WEAKNESS

The traditional ANC presupposes that more visits translate into better care for pregnant women and developing countries that still practise it have not made adjustments for their local needs and have not taken into account their limited resources[1, 5]. These frequent visits made by the women are thought to improve pregnancy outcomes without any scientific validation of their effectiveness. They are sometimes financially and logistically impracticable for many rural women to accomplish besides being a burden to the health system[1, 5, 6, 10]. It is especially more difficult for rural women to access ANC because the facilities are not evenly distributed with the rural communities being worse off[4].

An analysis of antenatal care in developing countries to assess the promises, achievements and missed opportunities has revealed that far too many of the patients that even attend antenatal care do not utilise skilled birth attendants at delivery[4]. Poor quality of the current antenatal regime where there is little real contact between the provider and the clients maybe the reason, resulting in low confidence in the efficacy of the delivery services. Another reason may be over-emphasis on antenatal care over delivery services and use of emergency obstetric services since there is no inclusion of birth preparedness and complication readiness in the traditional model[4]. Furthermore, most of the maternal and peri-natal deaths occur in the postpartum period, yet the traditional model does not emphasise care beyond delivery with only a small percentage of the women attending postnatal care[11].

Another flaw of the traditional model is that it is a risk-based approach where many women with identified risk factors consume disproportionately higher health care resources but never develop any complications while those who are assessed to be low risk are seldom prepared to recognise or respond to signs of complications which occasionally occur despite their classification into low risk group[12-14].

Most traditional ANC programmes in sub-Saharan Africa require that the women all gather in the facility in the morning, sometimes before the arrival of the care givers. These women generally have no alternatives since they would not receive services if they come after a specified time[15]. This arrangement usually results in overcrowding of the facility leading to 'absolute chaos' with shouting and abuses meted out to the patients in order to restore some sanity and long waits running into hours at the clinic. Much of this time however, is spent waiting and only a

few minutes spent in contact with the different providers. Clients have expressed immense dissatisfaction with these long waiting times in many settings in Africa[15]. In a study in Kwazu-Natal, South Africa, some patients indicated that they waited for up to five hours only to be attended to for five minutes or less and they were hardly given the chance to ask any questions[11]

OPPORTUNITIES

About 68% of pregnant women in the developing world attend ANC at least once while majority of those who visit do so more than four times. This implies that there is some knowledge and willingness by women to be reached by this promotive and preventive measure in order to ensure healthy outcomes for the mother and neonate[4].

Also, there are many health development partners and technical agencies who are willing to assist in the implementation of the different aspects of the focused ANC; WHO, UNICEF, JHIEPEGO, USAID, UNFPA, Population Council etc. Support by these agencies could be through training and improving capacity to implement and scale up the focused ANC in the sub-Saharan African region[1,2,4,16].

The focus of the world is currently riveted on the achievement of the MDGs. Most of the goals are health related and interlinked. While antenatal care on its own without linkage to delivery and emergence obstetric services cannot eliminate maternal and neonatal mortality, it is an acknowledged basis for the entry of many public health programmes that could help in the efforts towards the MDGs[4,17].

THREATS

Reproductive health programmes in sub-Saharan Africa are traditionally not designed to involve men either as partners, fathers or community members[18]. In the few instances where men accompany their wives to such facilities, they are forced to wait outside and remain uninvited by the health care personnel. Men therefore do not generally accompany their wives to access reproductive health services such as antenatal, postnatal care or family planning counselling sessions[18]. This therefore partly explains why husbands are hardly present during labour and delivery except when their consent is required during emergencies for surgeries on their wives or to donate blood[18]. Understandably, this will cause institutional delay in receiving care, which sometimes leads to maternal mortality. This poor involvement of men in reproductive health care of their partners has other far reaching implications; including poor contraceptive uptake, poor understanding of the reproductive interests of men, gender-based violence and men's poor understanding of the danger signs in pregnancy[18,19].

Commentaries on the WHO model for antenatal care have been raised. The rationality of excluding countries in sub-Saharan Africa in the pilot multicentre randomised trial of the WHO model has been challenged by Ekele and others[20]. The defects identified in the rejoinder are well placed because the chief aim of the model is to reduce maternal mortality in the world, and sub-Saharan Africa is home to most of all the maternal mortality cases that occur globally[4]. Inclusion of countries in the sub-region, the commentary posited, would have subjected the contextual factors under-pinning maternal mortality in these places to the test[20]. However because this was not done, there may be some lingering scepticism among members of the professional bodies and training institutions about the ability of the new WHO model to succeed in addressing many of the

contextual problems that face pregnant women in sub-Saharan Africa thereby resulting in reducing maternal mortality.

The reduced number of visits is also not acceptable to some clients in some pilot studies in Ghana, Kenya and South Africa[2]. These clients still preferred the frequent visits of the traditional model. This may be partly due to the fact that some clients in some deeply patriarchal and conservative societies see the frequent ANC visits as great opportunities to go out of the home, socialise and meet with other friends[20]. In other studies however, the preference for frequent visits as contained in the traditional ANC was because of the notion that it would increase the probability of detecting problems with their foetuses[11].

FACTORS THAT WOULD INFLUENCE THE INTRODUCTION OF THE WHO ANC MODEL

The Walt and Gilson policy analysis framework is now going to be employed to analyse the possible effects of the content of the policy, prevailing contextual factors, the processes and actors as they possibly apply to the new WHO antenatal care model.

CONTEXT:

There is a global stagnation or decline of funding for reproductive health services despite indication of increased demand for services due to population increase projections especially in Africa[5]. The US Census Bureau 2004[21] estimates that the population of women in the reproductive age (15-49) will increase by 2% annually in sub-Saharan Africa between 2002 and 2025. This will increase the need for reproductive health services including contraception, antenatal care, safe birthing services and postpartum care[21]. This has necessitated the need for governments and programme managers to look for new innovative and efficient ways of using existing resources to boost productivity[15]. The WHO model would provide one of those innovations to meet this aspiration since it has been found to be safe, cheap and sustainable[1,2,4].

Despite the willingness of the different health development partners to support the implementation of FANC, there are still many threats that exist. First of all, there is a fall in the amount of donor funds to the developing countries due to the global melt down as illustrated above. Furthermore, most of the donor funds that still come are concentrated in the fight against the HIV pandemic to the detriment of other components of reproductive health. Indeed the "gag rule" enacted by the 8-year rule of America under Mr George W. Bush further diminished support for many components of reproductive health across the world. Moreover, many of these development partners are supporting different vertical programmes like HIV, malaria, Safe motherhood and immunisation. This will result in the fragmentation of the FANC programme. The real challenge lies in the coordination of these efforts to enable integration of these partners to support the comprehensive package of focused ANC. Governments in the sub-region would also need to make substantial investments into the programme otherwise sustainability would be threatened if donor funds dry up.

CONTENT

FANC based on its design to involve women, their families and communities have the potentials to provide the structure upon which other health programmes such as PMTCT, IPT and Roll back malaria can be anchored.

One of the important introductions by the new

WHO ANC model is the emphasis on birth and emergency preparedness during the third and fourth visits. Birth and emergency preparedness is a vital strategy for safe motherhood programmes and generally accepted by international agencies[22, 23]. Lack of concrete plans to use a skilled birth attendant and poor preparation for action during complications contributes significantly to delays[24]. Birth and emergency preparedness is therefore closely related to the development of community transport and financing schemes and increasing the involvement of men in maternity care of women[22].

The health outcomes of pregnant women and their newborns, whether positive or negative, are significantly influenced by the decisions and timeliness of actions made by the woman, her partner and the family and sometimes the entire community[22]. Affirmative action is required to promote healthy households and communities leading to increased capacities and awareness of women, men and the entire family for seeking and utilising skilled care, improved support for the pregnant woman from the partner and family during pregnancy, delivery and post delivery period including a better status for the women within the community[22]. The goal therefore is to create an informed, participatory and supportive community, which is fully involved in supporting access to skilled care by devising community financing and transport schemes, supporting breastfeeding and reduced workload for pregnant women[22]. Many maternal health projects in Africa and Asia have shown that community-based emergency transport systems have been effectively used to reduce the delay in accessing care in the absence of public transport[25].

The major complaint against the current traditional ANC is long waiting times. The new WHO model in its original design would cut these long waiting times because women would be seen by scheduled appointments[2]. Implementation of the appointment system as part of the new WHO model is vitally important because a pilot study to determine its feasibility in South Africa resulted in both clients and provider satisfaction except that long waiting times persisted[2]. This was largely because the pilot study did not include scheduled appointments for attending to the clients. However, experience with appointment system in a family planning clinic in Jamaica has revealed resistance to scheduled appointments at times other than the ones clients were familiar with getting services[15,26]. Community mobilisation would therefore be required in sensitising the people about the new model and the importance of scheduling appointments to reduce waiting times. In countries where clients pay for consultations, lower prices could be charged for the less busy afternoon to encourage clients to use those periods[15]. Scheduling appointments to attend to clients especially in the less busy hours of the day could also allow more clients to be seen thereby reducing the cost per visit for each client[15]. An appointment system therefore, if properly managed, could result in increased productivity and better client satisfaction.

However it must be borne in mind that keeping appointments and sticking to timelines is not the greatest virtue of Africans. Besides, infrastructures such as communication and transport system are not fully developed to support the appointment system prevalent in many developed parts of the world. Implementers would have to give some latitudes

to the appointments initially before the culture of strict appointment is imbibed. However, when fully functional it will be clear that most of the time spent in the facility by the client under the appointment system will be in contact with service providers with little time wasted waiting. This measure of quality of the service would then create the willingness to sustain it.

The new ANC model proposes the use of nurses, midwives and medical assistants to attend to the majority of the low-risk pregnant women. This has been found to be cost-effective and sustainable[3]. This indeed is a model that is best suited for the developing countries if properly implemented because of the dearth of skilled manpower occasioned by the never-ending migration to Europe and North America in search of the Golden Fleece. The use of medium cadre health workers will help free the limited skilled manpower from attending to these low-risk women and allow them to be deployed in other aspects of the health system begging for attention. This will inevitably lead to appropriate and optimum use of the available health personnel. However, it remains to be seen how the physicians who traditionally attend to these women would react to this task shifting and/or sharing in the system. It would seem appropriate to suggest that this task shifting should be preceded by advocacy to the doctors and their professional associations to mitigate the misunderstanding and tensions that can arise from such a policy.

The nurses, midwives and medical assistants are a lot easier to train over a shorter period than physicians. Therefore implementation of FANC should be sustainable since training and deployment of the major human resources to support the programme is easily achievable.

ACTORS:

Scheduling appointment inherent in the new WHO model[2] maybe a good option for policy makers to cut down on long waiting times and increase productivity as alluded above. However, great consideration must be given to certain systemic and providers' barrier that may prevent this benefit from taking hold. Too often in sub-Saharan Africa where remunerations of public health workers are low, providers are encouraged to boost productivity without a commensurate increase in compensation. In these settings, workers usually come late to work while doctors sometimes leave early so as to attend to their private practices. Others may just prefer to work hard in the morning and have the afternoons free of client care so as to attend to administrative duties. These staff may not be motivated enough to start attending to clients with scheduled appointments from morning right into the evening. Implementing the new WHO model would have to factor this into consideration. Programme implementers may therefore consider incentivising providers more, if they attend to clients during the less crowded times in the late afternoon. This may indeed increase the number of women that are attended to in any facility[2].

PROCESSES:

Following the multicentre randomised controlled trials on the WHO model, several studies were conducted in Africa to assess the feasibility and acceptability of the model in the sub-Saharan region[2]. Results showed that the model is acceptable to both clients and providers and that it led to improvement in the overall quality of ANC in the countries studied[2]. It however recommended that rigorous training

and retraining of staff is required and that countries in Africa should domesticate the new model according to their local needs and resource[2]. Furthermore there is the need to create the enabling policy environment by the various governments and change the curricula in the various training centres in order to ensure the institutionalisation of the new model[2].

Policy makers in reproductive health have become increasingly more aware of the need to involve men in maternal and newborn health as partners, fathers, decision makers at the household level and community members[22]. This new and emerging recognition is very necessary since the cultural, social and gender dynamics in Africa do not generally prepare men to take active role in the crucial aspects of pregnancy, childbirth and postnatal care[27]. FANC by the nature of its design for birth preparedness and complication readiness would have to take on men and the community as partners. Researchers in South Africa and India have shown that there is a willingness for men to be involved in the ANC of their wives and even more[18,19]. Yet to be able to accomplish this, there must be adjustments to current programmes, which have typically not been designed to interact with men at all. Health care workers must also be trained to acquire the interpersonal skills to successfully engage men to support women during pregnancy, labour and postpartum period and to develop the capacities to appreciate the risks and danger signs associated with these crucial times[22].

The active and informed involvement of men in maternity, childbirth and childcare could also form a very strong entry point for community and health service collaboration[22,28]. This will empower the communities to work with the health sector and strengthens relationship. This collaboration will also help in addressing determinants of utilisation of health services such as belief in the efficacy of care, socio-cultural sensitivities and other community-defined quality of service. Cultural differences between community preferences and health worker treatment have been shown to limit the utilisation of health care even in the face of improved services[29]. Community involvement in the planning and evaluation of services is therefore important in improving the quality of care from the perspectives and preferences of women taking into account their social and cultural values[22]. For instance, the new WHO model advocated for postnatal visit one week after delivery[5,6.] Commentary from West African service providers suggests that this will not be feasible in many communities in the region because that period exactly coincides with an important socio-cultural rite in the family and the community- that is the naming ceremony of the newborn[20]. Community dialogue would be an important strategy to enable implementers of the new model to resolve such tensions.

Community dialogue would also engender other wider processes that have far-reaching positive bearings on reproductive health of women leading to a reduction in maternal mortality. It could be the basis of advocacy for girl-child education in many of those conservative and patriarchal societies where girls have very limited opportunities[22]. Girls' education must be prioritised as there is a close link between access to education for girls and reduced maternal mortality[16]. UNICEF has acclaimed that formal education in developing countries through health promoting schools is a fundamental channel for addressing reproductive health issues[30] and has

clear benefits like reduced fertility rate, delayed age of marriage, increased use of family planning methods and better health care seeking behaviour[31]. Community dialogue would also improve understanding of health workers in settings where women actually attend antenatal care but fail to use the delivery facility. One of such reasons maybe because male workers sometimes conduct deliveries, a situation that is not culturally acceptable to the community[22]. Community dialogue can therefore seize such opportunity to begin the debate on the need to allow girls to complete their education and become health care workers in order to fill this yawning gap in the community.

CONCLUSION

The WHO antenatal care model would appear to be safe and suitable for scale up in sub-Saharan Africa in order to benefit from the full complements of the new intervention as a way of linking pregnant women and the many other reproductive health services so as to improve maternal health. The content of the WHO model may need to be adapted to suit the prevailing context in the sub-Saharan region. Emphasis must also be placed on carefully handling the processes of the introduction by advocacy to the different actors that would be involved in the implementation of the new model.

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