

How Effective is the 2012 Maternal, Newborn and Child Health Week (MNCHW) in Rivers State?

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ABSTRACT

Background: Nigeria is one of the countries noted to have made insufficient progress towards the attainment of the health-related MDGs. Experience has however shown that a few cost-effective interventions that can be delivered in resource poor settings, through family/community-level action and schedulable population-oriented services, are able to rapidly attain these goals. This was the basis of the Maternal, Newborn and Child Health Week (MNCHW) in Nigeria, designed to achieve rapid population coverage of chosen interventions, within the one week period of the programme. This study assessed the effectiveness of the week held in Rivers State, in June 2012.

Materials and Methods: The data for the assessment was collected through on-the-spot observations, three semi-structured questionnaires, and the final summaries of the week, provided by the State Ministry of Health. The questionnaires were administered in nine health centers, in three randomly selected LGAs. The first questionnaire was used to assess the extent of the social mobilization carried out for the week; the second was an exit interview of clients of the health facilities, and used to assess the success of the social mobilization campaign; while the third questionnaire was used to assess the availability of the intervention commodities, and the quality of care given to the clients.

Results: The social mobilization campaign for the week was poorly funded and did not have much effect, as only 28.57% of the clients of the health facilities were aware of

the week. Most of the commodities for the week, except the NPI vaccines and vitamin A, were not available in the required quantities. Long Lasting Insecticide-treated Nets (LLINs) and Sulphadoxine-Pyrimethamine (SP) were not available in 65.22% of the LGAs, family planning commodities were not available in 30.43% of the LGAs, while iron and folate tablets were given to just 2.86% of the targeted total. The coverage rate of the vaccines ranged from 1.29% recorded with the measles vaccine, to the 14.85%, for the DPT vaccine. The coverage with vitamin A of 43.41% was the highest of all the interventions, while the 0.36% coverage for family planning commodities was the least.

Conclusions: The MNCHW in Rivers State did not meet the stated objectives. Efforts should be made to leverage on the political will of the current government of the State for health programmes.

Keywords: Cost-effective interventions; Rapid population coverage; Maternal,

INTRODUCTION

At the dawn of the 21st century, world leaders met under the aegis of the United Nations to sign the Millennium Declaration, aimed at addressing extreme poverty, in all its ramifications. The reduction of child mortality, improvement in maternal health and the control of HIV/AIDS, malaria and other diseases are three of the Millennium Development Goals (MDGs) set to be met by the year 2015¹. Three years to the year 2015, Nigeria is one of the countries noted to have made insufficient progress towards the

attainment of the MDGs. Although progress was made between 2003 and 2008, as shown by the 2008 Nigeria Demographic and Health Survey, mortality rates remain very high, and would therefore require a tripled pace to attain the MDGs².

Experience has shown that a few low-cost, effective and easily scalable interventions are able to rapidly reduce neonatal, child and maternal morbidity and mortality rates. These interventions are also known to be easy to deliver in resource poor settings, through family/community-level action and schedulable population-oriented services³. In recognition of this, the Federal Government of Nigeria, through the Ministry of Health launched the Maternal, Newborn and Child Health Week (MNCHW) in 2009, to rapidly increase the population coverage of the low cost, high impact interventions⁴. The week has since been held twice each year. This study assessed the effectiveness of the first Maternal, Newborn and Child Health Week (MNCHW) for 2012 in Rivers State, held between Monday, 18th and Sunday 24th June, 2012, in all the primary health care facilities in the State.

MATERIALS AND METHODS

Study area: Rivers State has a population of 5, 185, 400, according to the 2006 National census, and is one of the richest States in Nigeria, with an annual expenditure budget that often exceeds one hundred billion Naira; funded mainly through receipts from the derivatives from crude oil sales, and internally generated revenue estimated at four billion Naira every month⁵. Rivers State has 23 Local Government councils that have an average annual budget that often exceeds one billion Naira⁵. A substantial part of the State and Local Governments annual budgets have in recent years been spent in the provision of health services, far in excess of the extra US\$1.46 per capita required to achieve the universal coverage of key child survival interventions, needed to achieve the MDGs⁶.

Almost all the communities in Rivers State currently have access to primary health care facilities, within the prescribed 30 minutes

travel time. These health centers have in recent years received massive structural and human resources upgrade, with the building of an initial 160 health centers, at a cost of over a hundred million Naira each, and the employment of scores of doctors to run the health centers. All the health centers currently have human and material resources, far in excess of the national standard⁷. The administration of the primary health care centers has also been streamlined with the ceding of responsibility from the Local Government councils and the Primary Health Care department of the Ministry of Health, to the newly created Rivers State Primary Health Care Board. The board is modeled after the National Primary Health Care Development Agency (NPHCDA), and has the full administrative and funding responsibilities over the more than 200 primary health care centers in the State.

The Maternal, Newborn and Child Health Week (MNCHW) under study was held between Monday, 18th and Sunday 24th June, 2012, in all the primary health care facilities, in the 23 LGAs of the State. The objective was to achieve rapid population coverage for the following interventions: Focused Ante-Natal Care; delivery with Skilled Birth Attendants; essential newborn care; immunization, using the NPI vaccines; provision of LLINs; Intermittent Preventive Treatment (IPT) for malaria, using Sulfadoxine-Pyrimethamine combination; birth registration; nutrition screening; provision of low osmolar Oral Rehydration Salts (ORS); provision of zinc tablets, for the treatment of diarrhea; vitamin A supplementation; deworming; family planning services; and health promotion, including key household practices such as exclusive breast feeding, complementary feeding, hand-washing, hygiene and sanitation.

The main challenge for realizing the objective of rapid population coverage was how to provide the interventions as an integrated service in the health centers, when they exist as seven different vertical programmes, in even the Local Government councils. Efforts were however made to nullify this challenge by including all the vertical programmes, and the funding agencies in the implementation committees of the week.

The data for the assessment of the week was collected through on-the-spot observations, three semi-structured questionnaires, and the final summaries of the week, provided by the State Ministry of Health. The questionnaires were administered in nine health centers, in the three randomly selected Local Government Areas of Ikwerre, Ogba/Egbema/Ndoni and Emohua. The first questionnaire was administered on the Local Governments' Social Mobilization Officers and the health facility focal persons, and used to assess the extent of the social mobilization carried out for the week, the second was an exit interview of clients of the health facilities, and used to assess the success of the social mobilization campaign; while the third questionnaire was used to assess the availability of the intervention commodities, and the quality of care given to the clients. The collected data were analyzed using standard methods, and summary measures calculated for each outcome of interest.

RESULTS

A social mobilization campaign was used to promote the week in all the communities of the State, with implementation committees at the State, Local Government and health facility levels. The activities of the committees were however poorly funded, as the Local Government Implementation Committees typically received just 10% of the budgeted amount. This and the fact that the money was either released two weeks before the week, or during the week, meant that the committees couldn't fund the printing of poster and flyers for the week, and were forced to use inexpensive methods such as announcements in worship centers, town criers, few community rallies and recycled banners.

The awareness of members of the communities of the week was poor, as 18 (28.57%) of the respondents of the exit interviews of the clients of the health facilities were aware of the week. Most 45 (71.43%) of the clients came to access the normal scheduled services, and were not in the health facilities to access the integrated services promised by the week.

Services during the week were disrupted by rain, and the staff verification exercise carried out by the Rivers State Primary Health Care Board that took the health workers from the health facilities to the Board's headquarters in Port Harcourt, for at least one day. The staff complained of loss of momentum, while clients were disappointed to find an empty health center, in spite of the information given about the week.

The week was considered in most of the health centers as a programme for Community Health Workers, which alienated the other health workers in the health centers. According to a nurse/midwife in one of the health center: "we were not involved in the organization of the week, and therefore have little extra to provide during the week, apart from our scheduled services".

The summaries of the interventions delivered during the week are presented in Table I. All the interventions were made available during the week, except in some Local Government Areas. Long Lasting Insecticide-treated Nets (LLINs) and Sulphadoxine-Pyrimethamine (SP) were not available in 15 (65.22%) of the LGAs, while 5 (21.74%) LGAs gave out less than a hundred LLINs throughout the week. Family planning commodities were not available in 7 (30.43%) of the LGAs, with 8 (34.78%) of the LGAs attended to less than one hundred eligible women. Iron folate was not given in two LGAs, while 7 LGAs were only able to attend to 2, 686 pregnant women (2.86%), out of the targeted total of 94, 014.

Table I: The summaries of the interventions delivered during the June 2012 MNCHW

Intervention	Target population	Total doses given	Coverage rate
BCG	253, 493	15, 975	6.30
OPV	1, 267, 464	56, 224	4.44
DPT	253, 493	37, 638	14.85
Hepatitis B	253, 493	5, 420	2.14
Measles	1, 267, 464	16, 322	1.29
Yellow fever	253, 493	4, 475	1.77
Tetanus toxoid	316, 866	36, 982	11.67
Vitamin A	1, 140, 717	405, 210	43.41
Deworming	1, 013, 971	161, 511	15.93
MUAC	1, 140, 717	210, 300	18.44
LLINs	253, 493	2, 809	1.11
Iron folate	316, 866	49, 163	15.52
SP	316, 866	1, 617	0.51
Family planning commodities	1, 267, 464	4, 508	0.36
Health talk	1, 267, 464	120, 014	9.47

The NPI vaccines, vitamin A and their bundled commodities were widely available in the LGAs, except for yellow fever vaccine that was not available in 5 (21.74%) of the LGAs. The coverage rate of the vaccines ranged from 1.29% recorded with the measles vaccine, to the 14.85% for the DPT vaccine. The coverage with vitamin A of 43.41% was the highest of all the interventions, while the coverage for family planning commodities was the least, with coverage of 0.36%.

The nutritional status of 210, 300 children aged 6–59 months were assessed during the week, using the Mid Upper Arm Circumference (MUAC); out of this, 207, 703 (98.86%) had good nutrition, 2,379 (1.13%) were borderline, while 13 (0.062%) were malnourished.

DISCUSSION

The week achieved less than 25% coverage of the target population, in almost all the interventions. This is disappointing considering the availability of material and human resources for the delivery of all the interventions, in all the nooks and crannies of the State. It is also surprising considering the financial might of the State, and the political will for health programmes, demonstrated in several instances, by the present government of the State.

The NPI vaccines are one of the most cost-effective interventions for the rapid reduction of childhood morbidity and mortality. Immunization is widely accepted in Rivers State, such that any problem with coverage is often not due to the demand. This high acceptability is not only because traditional forms of vaccination was practiced in various communities in Rivers State, with different scarification rituals, but also stem from the success achieved with immunization in the control of smallpox, a disease that once killed thousands, in regular epidemics, to the extent that it was deified and worshipped in Yorubaland, as *sopona*⁸. The coverage rate for the NPI vaccines ranged from 1.29 for the measles vaccine, to 14.85% for the DPT vaccine. This coverage is low, considering the wide availability of the vaccines and their bundled products during the week, and the fact that the universal coverage target for the

vaccines is as high as 90%⁹. The coverage rates achieved during the week could actually be the rates regularly achieved with routine immunization, especially as most of the clients seen during the MNCHW professed to have come to access routine services. Apart from this, the high immunization rates in the State, achieved with routine immunization would have left very few unimmunized children for the MNCHW.

Apart from the NPI vaccines, the other commodities needed for the week were either not available, or were supplied in quantities that would not make any significant impact on the population coverage rate of the interventions. This is very bad, considering the financial might of the Rivers State government, the commitment of the donor agencies, and the cost-effectiveness of the commodities. The Long Lasting Insecticide-treated Nets (LLINs) were not available in 65.22% of the LGAs, and more than a fifth of the LGAs were only able to give out a few nets during this week. This in spite of the fact that the LLINs is considered the most efficacious of all the currently feasible interventions for malaria control in Africa.¹⁰ Its cost-effectiveness in preventing malaria morbidity and mortality is comparable to that of measles vaccination¹¹; and is generally found to be easier to implement and better accepted by the local communities than most other control measures.¹² Besides this, LLINs are widely used for mosquito-nuisance control in Rivers State and are highly appreciated during the rainy season, when mosquito nuisance is at the highest¹³. The nets would have been a big incentive to attend the week. It was not clear why the LLINs were not given the priority it deserved, and distributed as planned.

Only 1,617 women were given SP that cost less than N200, out of a total target population of 316, 866. This obviously did not take into consideration the fact that IPT with SP in areas without SP resistant strains of malaria parasites, is ranked highest in terms of cost-effectiveness, low-cost, wide availability, easy of delivery and wide acceptability¹⁴. A Kenyan study found that even a single dose of SP during pregnancy is able

to achieve a significant reduction in the rate of low birth weight¹⁵, while a Cochrane review of 15 studies found that women who were given regular, routine antimalarial drugs had less risk of developing severe anemia and had fewer episodes of fever during the antenatal period, while their newborn infants were more likely to have higher birth weight¹⁶.

Iron and folate tablets cost less than 50 kobo a tablet, but only a total of only 15.52% of the targeted women were given these drugs. The drugs were not even provided in Ahoada-West and Akuko-Toru LGAs, while seven LGAs were only able to attend to less than 3% of the targeted women. Yet, iron and folate supplementation during pregnancy is considered very essential, because the amounts supplied through diet are often not enough to meet the demand of pregnancy. Iron deficiency anaemia affects about two billion people worldwide, and underlies 8–15% of maternal deaths in developing countries¹⁷, while low maternal serum folate levels have been associated with low birth weight and prematurity¹⁸. A large US study found an association between higher maternal serum folate at 30 weeks' gestation and lower risk of Intra-Uterine Growth Retardation (IUGR), higher birth weight, and higher Apgar scores¹⁹.

Family planning commodities were to be given free of charge to clients, as a national policy, thanks to huge donor support; but family planning commodities were only available in about two third of the LGAs, who were only able to attend to 0.36% of the targeted women. This is really poor, considering that family planning, according to the Alma Ata declaration, is an essential health care that should be made universally available and accessible. It has also been recognized as vital to the realization of Nigeria's reproductive health aspirations, and recognized by UNICEF as essential for child survival. The reason for the poor coverage during the week could be attributed to the passive attitude of nurse/midwives in the health centers. The MNCHW was seen in the health centers as belonging to the Community Health Workers, whereas it is the nurse/midwives that are the main providers of reproductive health services in

the health centers. According to a nurse/midwife in one of the health center: “we were not involved in the organization of the week, and therefore have little extra to provide during the week, apart from our scheduled services”.

A coverage rate of 15.93% was achieved with deworming. This was largely thanks to the deworming programme of the wife of the State Governor (Mrs. Judith Amaechi) that provided the drugs and logistics for the deworming. But even at this, the deworming exercise was not carried out in four LGAs, ten LGAs were only able to deworm less than 300 children, while the anti-helminths were so thinly distributed that health centers, in some LGAs, were given just 20 doses, to attend to all the eligible children in their catchment communities. The albendazole used for the deworming cost less than N100 for a complete dose, so it is unjustifiable to give such a meager quantity, especially as the ability of deworming to correct anaemia and improve the academic performance of children has been demonstrated in a similar deworming exercise in Rivers State²⁰.

The week recorded a prevalence of malnutrition of less than 1%, using the mid upper arm circumference (MUAC). This is a fraction of the 10.6% recorded during the last National Demographic and Health Survey². This wide difference is more likely to be due to the difference in the assessment method, as the situation in the State seems to have worsened in recent years, with the economic situation and environmental degradation²¹. The weight for age used during the NDHS is considered a more sensitive measure of childhood malnutrition²², and therefore a closer reflection of the prevalence of malnutrition in Rivers State.

The several reasons could have been responsible for the poor coverage achieved during the week; one of the most important reasons is the lukewarm attitude of some of the stakeholders. For example, the RBM programme did not make any concrete arrangement for the issuance of LLINs and SP during the week. The LGA focal persons for the week were simply told to collect

the nets from the LGA RBM store, which turned out that there were either no nets in the store, or very inadequate quantity. The same was also observed with the family planning commodities. In another instance, the Rivers State Primary Health Care Board that currently manages the PHC centers in the State scheduled a staff verification exercise during the week. This took the health workers from the health facilities, to the Board's headquarters in Port Harcourt, for at least one day. The staff complained of loss of momentum, while clients were disappointed to find an empty health center, in spite of the information given about the week.

The input of the Local Government Councils in the week was minimal, because the councils were just relieved of their responsibility in the provision of primary health care. The LGA implementation committees complained of lack of support from the council, and the lack of political support was shown by the absence of a formal flag-off ceremony in most of the local governments.

The overlapping roles of the Department of Primary Health Care in the Rivers State Ministry of Health, and the Rivers State Primary Health Care Board also affected the success of the week. The MNCHW is coordinated by the Director of Primary Health Care, who technically does not have any control over the health workers in the PHC centers.

The publicity of the week was also defective. The Social Mobilization Committees for the week were given money for their activities, but the money actually released was most times just 10% of the budgeted amount. The money was released so late that that the committees couldn't fund the printing of poster and flyers for the week, and were forced to use announcements in worship centers and town criers; which proved ineffective. The traditional channels of communication have waned in effectiveness because Christian worship centers in the State have fragmented into many small churches that are difficult to cover; and town criers currently demand money to disseminate messages. The effectiveness of the town criers

has also waned, with the increased noise levels in the communities that easily drown out their voice.

Team work, a vital ingredient in the delivery of PHC services, and key to the success of the MNCHW seems to be lacking in the PHC facilities in Rivers State. The health centers are not uniformly staffed with Community Health Workers, but also have nurse/midwives and medical doctors, with no clear organogram. The Focal Person for the MNCHW is often a Community Health Worker, who is usually in charge of immunization services and growth monitoring in the health facility. He/she is often not in direct control and contact with the nurses/midwives that provide most of the ANC and maternity services in the health facility. The doctor in the health centers are mainly in charge of curative services. The new Primary Health Care Board in Rivers State must ensure team work among the different categories of staff.

The timing of the week shortly after the launching and introduction of the pentavalent vaccine for hepatitis, Haemophilus Influenza, Diphtheria, Tetanus and Pertusis did not help matters. The health workers were fatigued, and several of them saw the week as an extension of the launching of the pentavalent vaccine. When asked to show the IEC materials for the week, nearly all the health workers brought posters and handbills printed for the launching of the vaccine. The timing of the week might need to be reconsidered to ensure that heavy rains do not disrupt the mobilization and service delivery. The ideal time would have been just before the rains, between March and April, and then six months later. This is the ideal time, based on the seasonal calendar of the communities in Rivers State.

CONCLUSIONS

The MNCHW in Rivers State promised much, but delivered very little. This is sad considering the huge human and financial resources of the State, and the potential of the week to rapidly increase the population coverage for the high impact interventions. The blame squarely rests on the organizers in the State, who simply failed

to tap the political will of the current government of the State for health programmes.

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