

Provision of Integrated Maternal, Newborn, and Child Health (IMNCH) Services and Its Challenges in Enugu State, Nigeria

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Abstract

Integrated maternal, newborn and child health (IMNCH) programme is designed to enhance the efficiency of health services delivered to mothers, neonates and children. The purpose of this study was to ascertain the IMNCH services provided and its challenges in Enugu State. To achieve this purpose, four specific objectives with corresponding research questions were formulated and two hypotheses postulated and tested at 0.05 level of significance. The study adopted descriptive survey research design. The population for the study was 2,410 health providers from which a sample of 520 was drawn using multi stage sampling procedure. The instrument used for data collection was questionnaire. Frequencies and percentages were used to answer research questions while Chi-square was used to test all the hypotheses. The findings of the study showed that outreach services (45.7%) and clinic services (40.5%) of the IMNCH programme were inadequately provided and inadequate number of staff, and misdistribution of equipment were among the challenges of services provision for IMNCH programme (94.4%) while community/family services (72.2%) were adequate. Also result showed that there was no significant difference in IMNCH services provision according to private and public health facilities while there was difference in challenges of IMNCH services provision according to private and public health facilities. Based on the findings the researcher recommended that government should bridge the challenges of IMNCH programme through distribution of drugs, equipment, training and recruitment of staff as well as creating avenue for workshops and seminars.

Keywords: Provision, Challenges, Maternal health, Newborn health, Child health programme

Introduction

The health and wellbeing of the mother is inextricably linked with the health and survival of the child. Survival of a child depicts the quality of maternal care during pregnancy and childbirth. Many women die from pregnancy-related diseases in both developed and developing countries. Globally, it was estimated that everyday 380 (three hundred and eighty) women die from pregnancy and childbirth complications, 14 per cent of these births are from Nigeria (World Health Organization [WHO], 2016). Nigeria is the second largest contributor to maternal deaths after India. Under-five deaths is also high in Nigeria with rate of 201 per 1,000 live births (Sloan et al., 2018). It was estimated that a woman's chance of dying from pregnancy and childbirth in Nigeria is one in thirteen compared with one in thirty five in Ghana and one in four thousand

nine hundred in developed countries (UNICEF, 2018). In Enugu State, Madu and Eze (2015) reported that health services have failed majority of mothers and their children. To the authors, the reasons were insufficient service provision, inadequate training of staff, poor referral services, antenatal care, and assistance during delivery by trained health personnel. Federal Ministry of Health (2018) reported that 90 per cent of maternal and child deaths could be averted through integrated maternal, newborn and child health programme yet women and children die because of complications during pregnancy and delivery. The rate of maternal and child mortality instigated the researcher to study the provision of IMNCH programme and its challenges.

Integrated maternal, newborn and child health programme is designed to improve the health of mothers, neonates and children. This programme was developed by Federal Ministry of Health in March 2007. The IMNCH programme encompasses all interventions delivered over a continuum of care which aim at improving the health of mothers, newborn babies and children. World Health Organization-WHO (2016) maintained that IMNCH programme seeks to address delay associated with maternal, newborn and child health by improving household and care seeking practices, empowering the community to create and maintain an enabling environment to improve the quality of service provision at the peripheral and district (LGAs) levels. In this study IMNCH programme is an approach designed to improve the health of the mothers, neonates, and children through integration of maternal, newborn and child health (MNCH) services.

Maternal, newborn and child health are important indicators of a nation's health care delivery system and the level of society development. The IMNCH programme seeks to improve Maternal and child health through adhering to its objectives. According to Federal Ministry of Health (2012) the objectives of IMNCH programme are: to improve good quality health services, ensure adequate medical supplies; strengthen capacity for provision of MNCH services; improve capacity management of MNCH; ensure adequate funding; strengthen supervision, monitoring, establish and sustain partnership and ensure good maternal health.

Proper care during pregnancy ensures better maternal health and pregnancy outcome. Bryce and Requejo (2015) viewed maternal health as the health of women through pregnancy, labour, childbirth and in the postpartum period. Maternal health in this study refers to health of women during pregnancy, childbirth and postpartum period who access IMNCH programme. Services to

be provided for mothers include recognition and management of pregnancy-related complications, recognition and treatment of illness, screening for conditions and diseases such as anemia, tetanus immunization and deworming (Findley et al., 2013). According to Lawn et al. (2010), the day of birth and the first day of life are the riskiest time for both the mother and the baby. WHO (2016) affirmed that children who lose their mothers during childbirth have 66 per cent higher risk of death than those whose mother survive. Similarly, CorisSubrammania (2014) mentioned that the major causes of neonatal mortality are intrapartum-related injury (asphyxia), complication of preterm birth and severe infections.

Wilunda et al. (2015) opined that death from infection may easily be prevented through birth hygiene and newborn health practices such as drying of newly delivered baby, sterile cord clamping and hygienic care, placing the baby in skin-to-skin contact with the mother, early and exclusive breastfeeding and routine eye care. In this study, newborn health is the health of a person within one month while child health refers to health of a person before the age of adolescence whose mothers are expected to access IMNCH programme. Integrated maternal, newborn and child health interventions are organized into three components. Sloan et al. (2018) identify these components thus: family/Community services, outreach services and clinic services. This study adopts these components.

Community/family care is services that can be delivered on daily basis by community health workers with periodic supervision from more skilled health staff. Smithe, Sudhinaraset, and Montagu (2016) affirmed that community services involve improved home-based care practices and facilitating the adoption of healthy behaviour as well as empowering individuals and families to demand quality services. Outreach care is services that are delivered either outside or within health facility on a scheduled program (examples ANC and Immunization) (FMOH, 2018). According to FMOH (2018) outreach services include: reproductive health care, antenatal care, postnatal care and immunization services. Clinical care services require skilled health workers (preferably registered Nurse, midwives, or physician) who are available on a permanent basis for skilled birth care level. WHO (2016) stated that clinical care for IMNCH encompasses all the health care rendered to mothers, neonates and children in the health facilities. Clinical care should be available 24 hours and the provider must be adequately trained, equipped and supervised.

Service provision reflect the extent which people in need actually received important health services. Findley et al. (2013), maintained that one of the goals of IMNCH programme is to ensure that health services are effectively provided in health facilities. Certain challenges hinder successful provision of health services. A challenge is a problem faced by a seeker for which he has not foreseeable solution. Challenges of IMNCH programme is based on the inadequate number and training of health workers, limited availability of equipment, poor service delivery and access to health facilities. Only registered health facilities were considered in this study. There are 504 government and 335 private health facility providing health services for mothers, neonate and children in Enugu State.

Purpose of the Study

The purpose of the study was to determine the integrated maternal, newborn and child health services provided and its challenges in Enugu State, Nigeria. Specifically, the study was to determine:

1. Clinical services of IMNCH programme provided in Enugu State;
2. Family/ community services of IMNCH programme provided in Enugu State;
3. Outreach services of IMNCH programme provided in Enugu State; and
4. challenges of IMNCH service provision in Enugu State;

Research Questions

What are the Clinical services of IMNCH programme provided in Enugu State?

1. What are the Family/ community services of IMNCH programme provided in Enugu State?
2. What are the Outreach services of IMNCH programme provided in Enugu State?
3. What are the challenges of IMNCH service provision in Enugu State?

Hypotheses

1. There is no significant difference in the services of IMNCH programme provided according to public and private health facilities in Enugu state.
2. There is no significant difference in the challenges of services of IMNCH programme provided according to public and private health facilities in Enugu State.

Methods

Design of the Study: The study adopted descriptive survey research design.

Area of the Study: The study was conducted in Enugu State, Nigeria. Population for the Study: The population for the study comprised all the health workers in health facilities providing IMNCH programme in Enugu State. The total population was 2,410 health workers.

Sample and Sampling Techniques: The multi-stage sampling procedure was employed to draw the sample for the study. The first stage involved simple random sampling technique to select 50 per cent of the Local Government Areas (LGAs). This sampling gave a total of nine local Government Areas (LGAs) out of the seventeen LGAs, in Enugu State. The second stage involved proportionate random sampling technique to select forty percent of political wards from each selected LGAs (Nwana, 2010) this gave a total of fifty seven (57) wards. The third stage involved simple random sampling technique to select public and private health facilities from the fifty seven (57) wards that were selected. The fourth stage involved proportionate random sampling technique to select five hundred and twenty (520) health workers from health facilities.

Instrument for Data Collection: The instrument used for data collection was questionnaire whose face and content validity were validated through the criticism of three experts from the Department of Human Kinetics and Health Education, University of Nigeria Nsukka.

Data Collection: The copies of the questionnaire were distributed to respondents through the co-operation of nine research assistants (one from each selected LGA). The research assistants were briefed on how to complete the instrument. Questionnaire were distributed and retrieved on the spot.

Data Analysis: Data for the study was analyzed using frequencies and percentages. Services with cluster percentage of 50 and above were accepted to be provided likewise challenges with cluster percentage of 50 and above were accepted to be a challenge. All hypotheses were tested using chi-square analysis at .05 level of significance.

Results

Table 1: IMNCH services provision in Enugu State (Outreach services) (n = 520)

S/No		Provided		Not Provided	
		F	%	F	%
	Antenatal	483	43.0	37	57.0
1.	Recognition and management of pregnancy related complications, particularly preeclampsia				
2.	Screening for conditions and diseases such as anaemia, STIs, (particularly syphilis), HIV infection, Mental Health problems and /or symptoms of stress or domestic violent	460	48.5	60	51.5
3.	Preventive measures including tetanus toxoid immunization, deworming, iron and folic acid, intermittent preventive treatment of malaria in pregnancy, insecticide treated bed nets	333	64.1	187	35.9
4.	Advice and support to the woman and her family for developing healthy home behaviours and a birth and emergency preparedness plan	358	48.9	262	51.1
5.	Providing information on possible obstetric danger signs during pregnancy and delivery	391	35.2	129	64.8
6.	Providing information on need to seek adequate health care services at emergency health facility when necessary	432	83.0	88	17.0
	Cluster percentage		53.8		46.2
7.	HIV/AIDS Preventive and Care				
	STI/HIV/AIDS counseling and testing	420	40.7	100	59.3
8.	Prompt and effective treatment of STIs	416	30.0	104	60.0
9.	use of contraceptive as means of preventive spread of STI	412	79.3	108	20.7
10.	Provision of antiretroviral drugs to the mother-infant (for both prophylaxis and treatment)	328	43.0	192	57.0
11.	Counseling on infant feeding	430	46.3	90	53.7
	Cluster percentage		47.82		52.2
	Preventive infant and child care				
12.	Prevention of malaria using insecticide treated nets (ITN)	353	37.4	176	62.6
13.	Management of common childhood diseases	333	64.8	187	35.2
14.	Plotting weighing correctly in child health cards	433	31.1	87	68.9
	cluster percentage		44.4		55.6
	Overall		48.5		51.5

Source: WHO (1997)

Key:

% Score	Remarks
50 and above	Provided
Below 50	Not provided

The table shows that overall outreach services were not provided (48.5%). The table revealed a cluster percentage of 53.8 per cent for antenatal services which is above criterion of 50 per cent set for acceptance hence antenatal services were provided. Table 1 also presented data on HIV and AIDS preventive and care (47.8%), which showed that HIV and AIDs preventive and care services were not provided. The table further indicated that majority of the respondents revealed that use of contraceptive as means of preventing spread of STI (79.3) was provided.

Table 1 shows a cluster percentage of 44.4 percent on preventive and child care which is below criterion of 50 percent set for acceptance. This implies that preventive infant and child care was

not provided. The table further revealed that majority of the respondents indicated that Management of common childhood diseases was provided.

Table 2: IMNCH Services Provision in Health Facilities in Enugu State (Clinical services) (n = 520)

S/No		Provided		Not Provided	
		f	%	F	%
	Skilled maternal neonatal care				
1	Monitor labour with partograph	447	35.9	73	64.1
2	Measuring blood pressure	462	58.9	58	41.1
3	Applying controlled cord traction	435	43.7	85	56.3
4	Injection of oxytocin within 1 minute of delivery	389	54.8	131	45.2
5	Applying uterine massage	274	52.6	246	47.4
6	Resuscitation of asphyctic new born at birth	389	34.8	131	65.2
7	Antibiotics for preterm/prelabour rapture of membrane	381	53.3	139	46.7
8	Prevention and management of infection	401	57.0	119	43.0
	Cluster percentage		48.9		51.1
	Management of illness				
9.	Antibiotics for pneumonia, diarrhoea and malaria	370	71.1	150	28.9
10	Performing blood transfusion	354	48.1	166	51.9
11	Performing caesarian section	420	40.7	100	59.3
12	Administering intravenous fluids for new born	376	52.2	144	47.8
	Cluster percentage		53.0		47.0
	Clinical referral				
13	Emergency obstetric and neonatal care	441	49.8	79	50.2
14	Management of severely sick children	470	50.4	50	49.6
15	Management of complicated AIDS	431	40.4	89	59.6
	cluster percentage		46.9		53.1
	Overall		49.6		50.4

Source: WHO (1997)

Key:

% Score	Remarks
50 and above	Provided
Below 50	Not provided

The table shows data on clinical services (49.6%) of IMNCH programme. which was below criterion of 50 per cent set for acceptance. This implies that clinical services were not provided. Table 2 also revealed a cluster percentage of 53.0 per cent for management of illness which was above criterion of 50 per cent set for acceptance. This means that services for management of illness were provided.

Table 3: IMNCH Services Provision in Health Facilities in Enugu State (Family/Community Services) (n = 520)

S/No		Provided		Not Provided	
		F	%	F	%
	Family preventive WASH services				
1	Use of Insect Treated Net (ITN) by under-five children and Pregnant Mother	356	58.5	164	41.5
2	Washing hand with soap	343	55.9	177	34.1
3	Use of safe drinking water by mother	383	73.7	137	26.3
4	Family planning method (condom)	378	72.6	142	27.4
5	Use of sanitary latrine	520	100.0	0	0
	Cluster percentage		72.1		27.9
	Family neonatal care				
6	Clean delivery and cord care	491	94.4	29	5.6
7	Putting to breast with 30 minutes delivery	383	73.7	137	26.3
8	Temperature management	520	100.0	0	0
9	Community base care of Low Birth Weight infants	512	98.5	8	1.5
	Cluster percentage		91.7		8.3
	Infant and child feeding				
10	Exclusive breast feeding for children 0 – 5 months	397	76.3	123	23.7
11	Continued breast feeding for children 6 – 11 months	397	76.3	123	23.7
12	Complementary feeding from 6 months	449	86.3	71	13.7
13	Supplementary feeding for malnourished children	430	82.6	90	17.4
	Cluster percentage		80.4		19.6
	Community management of illness				
14	Oral rehydration therapy	491	94.4	29	5.6
15	Anti-malaria treatment	491	94.4	29	5.6
	Cluster percentage		94.4		5.6
	grand		84.7		15.3

Source: WHO (1997)

Key:

% Score	Remarks
50 and above	Provided
Below 50	Not provided

Table 3 presents a list of family/community services provided for IMNCH programme. The table shows grand percentage of 84.7 per cent which was above criterion of 50 percent set for acceptance. This implies that family/community services were provided.

Table 4: Challenge of Services Provision for IMNCH Programme in Enugu State (n = 520)

S/No	Challenges	Yes		No	
		F	%	F	%
Human resources					
1	Insufficient training of staff	247	95.0	13	5.0
2	Poor recruitment and retention of workers	247	95.0	13	5.0
3	Inadequate number of staff	252	97.0	8	3.0
4	Poor distribution of workers	247	95.0	13	5.0
Cluster percentage			95.5		4.5
Material resources					
5	Inadequate equipment	247	95.0	13	5.0
6	Misdistribution of equipment	245	94.1	15	5.9
7	Weak management of available material	247	95.0	13	5.0
8	Inappropriate supply of needed material	247	95.0	13	5.0
Cluster percentage			94.8		5.2
Financial resources					
9	Poor remuneration	242	93.1	18	6.9
10	Low incentive worker	232	89.1	28	10.9
11	Insufficient fund for referral (transportation)	234	90.1	26	9.9
12	Insufficient fund for outreach services	242	89.1	18	10.0
13	Donor fatigue	247	95.0	13	5.0
14	Corruption and embezzlement of fund	250	96.0	10	4.0
15	Low political and financial commitment	247	95.0	13	5.0
16	Low budgetary allocation to IMNCH programme	250	96.0	10	4.0
Cluster percentage			92.9		7.1
Overall percentage			94.4		5.6

Source: WHO (1997)

Key:

Percentage score	Remark
Above 50	Challenge
Below 50	Not a challenge

Table 4 shows a cluster percentage of 95.5 per cent as challenges for provision of human resources, 94.8 per cent as challenges for the provision of material resources, and 92.9 per cent as challenges of financial resources which were above the criterion mean of 50 per cent set for acceptance. This implies that all were accepted as challenges for resources provision.

Table 5: Summary of Chi-square (χ^2) Analysis of Difference in Service Provision for IMNCH Programme According to Health Facility

S/No	Service provision	Public health facility		Privates health facility		(χ^2) Value	d.f	P-value	Decision
		P	NP	P	NP				
1	Clinical services	164(87.7)	23(12.3)	73(88.0)	10(12.0)	.003	1	.954	Accepted
2	Outreach services	153(81.8)	34(18.2)	77(92.8)	6(7.2)	5.465	1	.019*	Rejected
3	Family/community services	176(94.1)	11(5.9)	83(100.0)	0(0.0)	5.090	1	.024*	Rejected

* = significant

Table 5 shows that there is significant difference only in the clinical services provision based on health facility type with ($\chi^2 = .003$, $P = .954 > .05$) greater than 0.5 level of significant at one degree of freedom. The null hypothesis of no significant difference was therefore accepted. This implies that service provision did not differ according to public and private health facility. Table 5 also shows that there is significant difference in the outreach services ($\chi^2 = 5.465$, $P = 19 < .05$) and family community services ($\chi^2 = 5.090$, $P = .024 < .05$) provision based on health facility type with p-value less than .05 level of significant at one degree freedom. The null hypotheses of no significant difference were rejected. This implies that service provision for outreach services and family/community services differed according to health facility.

Table 6: Summary of Chi-square (χ^2) Analysis of Difference in the Challenges for Service Provision for IMNCH Programme According to Health Facility

S/No	Challenges	Public health facility		Privates health facility		(χ^2) Value	d.f	P-value	Decision
		C	NC	C	NC				
1	Human resources	164(93.3)	12(6.7)	56(92.3)	5(7.7)	.031	1	.850	Accepted
2	Material resources	164(93.3)	12(6.7)	59(96.2)	2(3.8)	.275	1	.600	Accepted
3	Financial resources	169(96.0)	7(4.0)	59(96.2)	2(3.8)	.001	1	.972	Accepted

Figure in bracket are observed frequency, figure outside bracket are expected frequency.

Table 6 shows that there is no significant difference in the challenges militating against IMNCH services provision based on health facility type. Human resources ($\chi^2 = .031$, $P = .850 > .05$), material resources ($\chi^2 = .275$, $p = 600 > .05$) and financial resources ($\chi^2 = .001$, $P = 972 > .05$)

were greater than .05 level of significant at one degree of freedom. The null hypotheses of no significant difference were therefore accepted. This implies that the opinions of the respondents did not differ regarding the challenges militating against provision of services for IMNCH programme according to health facility type.

Discussion

Finding in Table 1 showed that outreach services of the IMNCH programme were not provided. The finding was expected and not surprising because studies (Adamu & Uwemedimo, 2013) revealed that outreach services were not provided effectively in communities due to insufficient resources. The finding is at variance with that of Smithe, Subhinaraset, and Montagu (2016) who affirmed that outreach services (routine immunization coverage) had improved since funding increased. Similarly, the authors added that investment in malaria programme has enabled key interventions, such as provision of insecticide treated bed nets for pregnant mothers and under-five children and routine intermittent preventive treatment of malaria for infants. The discrepancy may be that the studies were carried out in different countries.

Table 2 revealed that clinical services such as skilled maternal and neonatal care, management of illness, and referral system were not provided. This is in line with the finding of Wilunda, Tanaka, Putoto, Isegauye, and Kawakani (2016) which reported that the percentage of health centres' deliveries decreased because of the decrease in service provision and absence of skilled health personnel. The finding is also consistent with Adamu and Uwemedimo, (2013) which indicated that referral services were poor in health facilities. They lack vehicles, and this leads to high maternal mortality. This finding is expected because most death in health facilities are because of poor service provision due to insufficient staff, essential drugs and neglect to human life. This finding disagrees with that of Gilmore and Mcauliffe (2013) who reported that qualities of services provided in health facility were moderate. According to the authors five main prevention interventions were provided, (malaria prevention, health education, breastfeeding promotion, essential newborn care, and psychological support).

Table 3 indicated that family/community services were provided. The present finding supports that of Federal Ministry of Health (2007) who stated that family preventive services are being provided and made known to mothers in the communities. According to FMOH mothers were provided with insecticide treated net, ORS, vitamin supplements and condom to use at home for

better health. The interest of government on mother and child health might have been a great avenue for the provision of services in health facilities resulting to this finding.

Results in Table 4 showed that all the investigated challenges negatively affect provision of IMNCH services. The finding was not a surprise because Pia, Karen and Alabi (2018) identified challenges in health facilities as one of the reasons for poor service delivery and high mortality rate. The finding is also in agreement with Adamu and Uwemedimo, (2013) who revealed challenges such as inadequate human resource, improper training, poor opportunity for workshop, poor funding, and poor material resources as reasons for poor service provision. This finding is expected because some of the government leaders have bias mind in resource distribution. Resources are concentrated in some communities while abstain or few in others.

Findings in Table 5 showed that there was no significant difference for clinical service provision for IMNCH programme according to public and private health facilities. This was expected as both public and private health facilities provide these services for mothers and their children. This agrees with finding of Polsa, Spens, Soneye, and Antal (2017) whose respondents indicated that there was very little, if any difference in services provided in public and private health facilities. Table 5 also revealed that there was significant difference for outreach and family service provision for IMNCH programme according to public and private health facilities. Public and private facilities are expected to provide these services effectively considering the interest of mothers and their children as well as the objective of this programme as stipulated by WHO. FMOH (2007) emphasized that private hospitals are being supervised and monitored to see that they comply with state and federal registration.

Results in Table 6 also found a significant difference in the opinion of health providers in facilities regarding challenges of services provision of IMNCH programme according to private and public health facilities. This finding is expected because of people's attitude towards government owned property which is most unpatriotic. When fund allocations are been made, wrong priorities are created in other to divert or confiscate sizeable parts of the fund. No significant difference was found in the provision of human resources. This result is not expected, government facilities are expected to have more and qualified health care providers. Private health facilities restrict employment more due to insufficient fund. Finding also shows that there was no significant difference in financial resources and material resources for IMNCH service provision according to private and public health facilities. This is so because Pia, Karen and

Alabi (2018) asserted that both private and public health facilities face challenges due to insufficient fund and material resources.

Conclusion

Based on the finding, the study concluded that outreach and clinical services of the IMNCH programme were not provided while family/community services were provided. All the investigated challenges militate against the IMNCH services provision. There was no significant difference in outreach services provision while there were significant differences in clinical and family/community services provision according to private and public health facilities. There was no significant difference in challenges militating against the IMNCH service provision according to private and public health facilities.

Recommendations

1. Owners of health facilities should recruit and train health providers to enhance health services provision.
2. State Ministry of Health should provide material resources and essential drug to enhance effective service provision in health facilities.
3. Owners of health facilities should devise means to curtail IMNCH services provision challenges in all ramifications to enhance better services provision.
4. There is need for further research on IMNCH programme in different States.

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