Original Research Article

DOI: http://dx.doi.org/10.18203/2394-6040.ijcmph20184777

Improving maternal and child health: a situational analysis of primary health care centres of Sokoto state, Nigeria

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Received: 25 July 2018 Revised: 28 September 2018 Accepted: 29 September 2018

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ABSTRACT

Background: Primary health care facilities constitute the first point of contacts of public with healthcare and form integral part of the country's health system.

Methods: A descriptive cross sectional study was conducted among 88 primary care facilities in the State. A simple random sampling technique was used to select the facilities. Federal Ministry of Health integrated supportive supervision tool was adapted for data collection and analysis done using SPSS Version 20.0. The variables were summarised with frequency and percentage and results presented in tables.

Results: Almost two-thirds (65%) of the facilities provide 24 hours service coverage for both maternal and child care services. Only 16% of the facilities had medical officers, 12.5% had required number of nurse/midwife while 27% had no single nurse/midwife. With respect to trainings, one third of the facilities had personnel trained on medium and extended lifesaving skills, 20% had a trained staff on emergency obstetrics and newborn care while 61% had no single trained personnel on integrated management of childhood illnesses. A large proportion of the facilities provide maternal services such as focused ANC and delivery but none use partograph to monitor labour. A good number of facilities were lacking basic equipment and medicine supply with about two third of facilities lacking misoprostol and magnesium sulphate, and only 15% had functional DRF.

Conclusions: Health resources and the level of service provision in its current form may not lead to a significant improvement in maternal and child health in the state to guarantee universal coverage.

Keywords: Maternal and child health, Primary health care

INTRODUCTION

Maternal and child health (MCH) services are essential components of the comprehensive primary health care (PHC) package and most patients' health largely depends on the primary health care sector of the country because usually it is the first point of call and maybe the only source of health they have. MCH services encompass

maternal services including family planning and child health. These services are part of the minimum requirement of a primary health care center as every PHC facility should provide at least the following services: regular and full immunization; adequate supply of potable water and proper nutrition; prevention and early treatment of local endemic and infectious diseases; maternal and child care, including family planning; and

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provision of essential drugs organized and delivered in an integrated manner.2 The poor maternal health indices in developing countries have remained a great burden for the governments of the various countries concerned, as well as the international health community. Several attempts at correcting this anomaly have been made at various levels, however every year about 287,000 women die of causes associated with childbirth, 99% in developing countries.3-5 In Nigeria with about 2,300 under-five year olds and 145 women of childbearing age dying every single day the country is the second largest contributor to the under-five and maternal mortality rate in the world. 6 Nigeria's infant mortality and under five mortality rate is about 69 and 128 per thousand live births respectively meaning 1 in every 15 Nigerian children will die before the age of 1 and these rate are even higher in the north western part of the country. Similarly the maternal mortality ratio is high with a rate of 576 per 100000 live births. Nigeria has one of the highest maternal and infant mortality rates in the world and this necessitated the greater attention given to maternal and child health (MCH) services in the country through PHCs The goal of primary health care (PHC) was to provide accessible health for all by the year 2000 and beyond. Unfortunately, this is yet to be achieved in Nigeria and seems to be unrealistic even in the next decade. The PHC aims at providing people of the world with the basic health services which is currently catering for less than 20% of the potential patients. 8,9 It is highly ineffective and has deteriorated due to the lack of investment in personnel, facilities and drugs.1 While it is an acknowledged fact that wide varieties of maternal and child health services are provided by PHCs from time to time, lack of facilities at these centers has made availability and optimum utilization of the services a mirage. Coupled with this, is the fact that incentives available to PHCs workers are minimal therefore commitment on the part of these workers becomes a big question, of equal significance to the quality of services and level of financing available to these centers. 10 Effective delivery of healthcare services requires availability of adequate infrastructure, diagnostic medical equipment, drugs and well-trained medical personnel. In Nigeria, poor funding and mismanagement, poor infrastructure, inadequate equipment and human resources often characterize healthcare service delivery thereby affecting coverage and quality of healthcare services. Such infrastructure defines the quality of services provided based on their relatively adjudged qualitative and quantitative characteristics.¹ availability of basic health services provided by the PHC especially to rural areas in a country might be used as a yardstick to measure the extent of its health level of development. 11 It is therefore imperative to reevaluate the preparedness of primary healthcare facilities for maternal and child health service delivery in the spirit of working towards achieving health-related SDGs. Therefore this study aimed to assess service readiness and capacity of Primary health care facilities as regards maternal and child health in Sokoto state.

METHODS

The study was conducted in Sokoto state between August 2017 and December 2017. The State comprised of 23 Local Government Areas (LGA) and each has an average of ten primary health care (PHC) centres. The entire State is divided into three health zones. A descriptive crosssectional study was conducted among 88 PHCs in all the three health zones of the State. Only the health facilities of the status of PHCs as defined by State Government were included in the survey. However PHCs where the head/in-charge or representative was not available to provide the required information including documented evidences at the time of assessment were excluded. Thirty PHC facilities were randomly selected from each health zone, translating to selecting at least three facilities from each LGA. A simple random sampling technique was used to select the facilities that participated in the survey. Data was collected by face-to-face interview using Federal Ministry of Health integrated supportive supervision (ISS) tool. The data was collected by ISS teams who were primarily drawn from Sokoto state primary health care development agency during the process of supportive supervision of the facilities. The collected data was entered into Microsoft excel and analysed using IBM SPSS Version 20.0. All the categorical data were summarised using frequency and percentage and the final results were presented in simple tables. Ethical clearance was granted to conduct the survey and additionally permission obtained from the head of each participating health facility. Ethical approval for the conduct of the study was granted by the Sokoto state Research Ethics Committee and was performed in accordance with the ethical standards.

RESULTS

More than three quarters of the facilities assessed were found to have accessible roads, neat and tidy environment, adequate space for different interventions, less than half had potable water in the facility and carries out periodic rodent and pest control activities. Although two thirds have functional source of power supply, only 33% reported the source of power supply being adequate (Table 1).

Nearly two thirds (63%) of the facilities had work schedule for their staff and 27% also had annual work plan but none of the facilities adequately implemented the activities within the plan however one third partially implemented. While 65% of facilities provide 24-hours maternal and child health services, 68% and 38% reported that staff posting and number of staff on leave respectively affect service delivery. Majority (72%) of the facilities conduct periodic management meetings with facility staff even though none provided the reports or minute of meetings and 67% monitor staff attendance, lateness and absenteeism by in-charge while about two thirds have up-to-date daily register for staff movement. Only 7% of the facilities assessed had an impress account

and 15% reported having drug revolving fund (DRF) while eleven of the thirteen had a separate DRF account. All the facilities with DRF have a DRF committee and

eleven of the thirteen reported regular meetings but no minutes of meeting or committee report as evidence (Table 2).

Table 1: Facilities external environment and physical infrastructure.

Variables	Frequency	Percentage (%)
Availability of accessible road to the PHC	73	83
Generally neat and tidy environment	79	89.8
Facility space adequate for different interventions	75	85.2
Facility walls intact [no cracked walls]	59	67
Facility roof intact [no leaking roof]	53	60.2
Availability of potable water in the facility	42	47.7
Availability of adequate functional sewage disposal system	64	72.7
Adequate solid waste disposal system	72	81.8
Periodic rodent and pest control activities in the facility	43	48.9
Functional source of power supply to the PHC	58	65.9
Adequate power supply to the PHC facility	29	33.0

Table 2: Facilities administration and financial management.

Variables	Frequency	Percentage (%)
Availability of work schedule for the facility staff	55	62.5
Presence of facility annual work plan	24	27.3
Activity implementation within the plan		
a. Partially implemented	29	33
b. Did not implement	59	67
c. Adequately implemented	0	0
Up-to-date daily register for staff movement	57	64.8
Staff posting affecting service delivery	60	68.2
Number of staff on leave affecting current service delivery	34	38.6
Staff attendance, lateness and absenteeism monitored by in-charge	59	67.0
Periodic management meetings with facility staff	63	71.6
Facility provide 24-hours maternal and child health services	57	64.8
Provision of free maternal and child services in the facility		
a. Both maternal and child services	2	2.3
b. Maternal or child health	78	88.6
c. None	8	9.1
Availability of organogram for the facility	30	34.1
Financial management		
Facilities with impress account	6	6.8
Number of facilities with DRF	13	14.8
Availability of separate drug revolving fund (DRF) account	11	12.5
Presence of DRF committee	13	14.8
Regularity of meeting of DRF committee	11	12.5
Monthly DRF returns up to date	9	10.2

Table 3: Level of Human resources for health of the facilities.

Variables	Frequency	Percentage (%)
Medical officer	14	15.9
Nurses/midwives		
a. Adequate number of nurse/Midwife [3 ideal]	11	12.5
b. Partially adequate nurse	53	60.2
c. None	24	27.3
Community health officers	30	34.1

Continued.

Variables	Frequency	Percentage (%)
CHEWS		
a. Adequate number of CHEWs [3 ideal]	10	11.4
b. Partially adequate	73	83
c. None	5	5.6
JCHEWS		
a. Adequate number of JCHEWs [6 ideal]	5	5.6
b. Partially adequate	67	76.1
c. None	11	12.5
Public health nurse	9	10.2
Laboratory technician	77	87.5
Medical record officer	76	86.4
Pharmacy technician	29	33.0

Table 4: Trainings attended by the staff.

Variables	Frequency	Percentage (%)
Availability of staff training plan	27	30.7
Availability of any facility staff trained on:		
Integrated PHC	49	55.7
Extended life saving skill	23	26.1
LSS	42	47.7
MLSS	30	34.1
Essential newborn care	55	62.5
Community based newborn care	41	46.6
COPE	17	19.3
Infant and young child feeding (IYCF)	26	29.5
Community management of acute malnutrition (CMAM)	25	28.4
Lactation management	37	42.0
Integrated management of childhood illnesses (IMCI)		•
a. Greater than 60% staff trained	0	0
b. Less than 60% trained	34	38.6
c. None trained	54	61.4
HIV/AIDS	47	53.4
EmONC	18	20.5
Family planning (FP)	75	85.2
Youth friendly health services	21	23.9
HMIS in the last 1 year	59	67.0
Health promotion	32	36.4
CLMS	28	31.8

Table 5: Medicine supplies and equipment.

Variables	Frequency	Percentage (%)
Availability of essential drug list	52	59.1
Presence of drug store	65	73.9
Availability of drug stock monitoring (bin card etc.)	63	71.6
Availability of an up-to-date record of expired and lost drugs	45	51.1
System for mopping up and disposal of expired drugs available		
a. Expired drug still on shelf	39	44.3
b. Found in other places in facility	49	55.7
c. None found or packed and labeled for disposal	0	0
Availability of standard equipment list at the health facility	74	84.1
Any documentation in the health facility of equipment shortfalls	48	54.5
Available plans for meeting equipment shortfalls?	23	26.1

Table 6: Maternal health services and medicine supplies.

Variables	Frequency	Percentage (%)
Service provision		
Focused ANC	86	97.7
Delivery	83	94.3
Post natal care	84	95.5
Community based newborn care (CBNC)	50	56.8
Family planning	87	98.9
Counseling and referral services	85	96.6
Prevention of mother to child transmission of HIV (PMTCT)	22	25
Medicine		
Oxytocin/ergometrine	41	46.6
Misoprostol	28	31.8
Magnesium sulphate	18	20.5
Diazepam	12	13.6
Metronidazole	33	37.5
Folic acid	68	77.3
Ferrous sulphate	47	53.4
SP	77	87.5
ACT	83	94.3
Antibiotics	43	48.9
IV Fluids	40	45.5
Injectable contraceptives	69	78.4
Contraceptive pills	60	68.2

Table 7: Equipment and supplies for maternal health services.

Variables	Frequency	Percentage (%)
Oxygen/cylinder	14	15.9
Nasogastric (NG) tube	13	14.8
Oropharyngeal airway	11	12.5
Ambu bag	29	33.0
Delivery beds	72	81.8
Delivery couch	60	68.2
Delivery pack	64	72.7
Midwifery kit	53	60.2
Partograph	20	22.7
Clinical thermometer	69	78.4
Weighing scale	78	88.6
Blood pressure machine	67	76.1
Stethoscope	77	87.5
Hemoglobin test kit	38	43.2
Urine test kit	55	62.5
RDT kits	84	95.5
MVA kits	18	20.5
Suction equipment	35	39.8
Anti-shock garments	15	17.0
Long lasting insecticide treated nets [LLINs]	53	60.2
Fetoscope	78	88.6
Protective garments	56	63.6
Patella hammer	14	15.9
IV giving set	47	53.4
Gloves, syringes and needles	60	68.2
Male condoms	77	87.5

Table 8: Services, equipment and medicine for newborn care.

Variables	Frequency	Percentage (%)
Services		
Birth registration	75	85.2
Essential newborn care	62	70.5
IMCI	44	50
Newborn resuscitation	49	55.7
Early initiation of breast feeding	84	95.5
Kangaroo mother care	43	48.9
Vaccination	85	96.6
Referral	88	100
Equipment and supplies		
Nasogastric tubes for neonates	8	9.1
Neonatal ambu bag	16	18.2
Mucous extractor	57	64.8
Low reading thermometers	36	40.9
Cord clamp	56	63.6
Identification bands	42	47.7
Medicine		
Gentamicin	32	36.4
Benzyl penicillin	21	23.9
Vitamin K	16	18.2
Chloramphenicol ointment	24	27.3

Only 16% of the facilities had medical doctors (locum doctors), only few (13%) had adequate number of nurse/midwife, and 27% had none, 11% had adequate number of CHEWs and 6% none, 6% had adequate number of JCHEWs, 76% partially adequate and 13% none (Table 3).

About one third of the health facilities have staff training plan. Greater than three quarters of facilities had staff trained on family planning and 63% on essential newborn care while less than a third had any staff trained on extended life saving skill, COPE, infant and young child feeding (IYCF), Community management of acute malnutrition (CMAM) and youth friendly health services (Table 4).

More than half of the facilities had essential drug list and 74% have drug store, with nearly three quarters (72%) of the facilities having drug stock monitoring bin card. None of the facilities assessed had in place a system for mopping up and disposal of expired drugs as expired drugs were found on the drug shelf in 44% of the facilities. Majority (84%) had standard equipment list at the health facility and 55% have documentation of equipment shortfalls while only 26% had plans for meeting equipment shortfalls (Table 5).

Less than one third of facilities provide prevention of mother to child transmission of HIV infection (PMTCT) and Community Based Newborn Care (CBNC), more than three quarters provide focused ante natal care, delivery, post natal care, counseling and referral services including family planning. And with respect to medicine, except for oxytocin/ergometrine where nearly half (47%) of the facilities had, very few facilities had other key emergency lifesaving drugs such as misoprostol, magnesium sulphate and diazepam (Table 6).

Many of the health facilities do not have the basic required equipment and supplies for maternal health services as only very few have oxygen/cylinder (16%), nasogastric (ng) tube (15%), oropharyngeal airway (13%), anti-shock garment (17%) and 21% have MVA kit while only one thirds have ambu bag and two thirds had delivery couch (Table 7).

All the facilities provide referral services and nearly all provide vaccination services to newborns. Majority of facilities provide birth registration (85%), essential newborn care (71%), early initiation of breast feeding by 96% while almost half also practice Kangaroo mother care. Only eight facilities had neonatal nasogastric tube and sixteen had neonatal ambu bag. While only nearly two thirds had mucous extractor and cord clamp, less than half had low reading thermometers and newborn identification bands (Table 8).

Except for 53% of facilities that treat children according to IMCI guidelines, many others provide other range of services such as management of common childhood illnesses, counseling of care givers, adequate and appropriate complementary feedings, deworming, routine immunization and growth monitoring. Although nearly

all the facilities have register, weighing scale, tape measures and thermometers, only 34% and 38% had auroscope and tongue depressors respectively (Table 9).

Apart of 18% of the health facilities that carry out micronutrient deficiency control and management of severe acute malnutrition by 33%, many other child nutritional services such as infant and young child feeding, nutrition education and food demonstration, vitamin A supplementation, growth monitoring and promotion are readily available. Majority had basic required equipment for the service provision, however with respect to medicine, only few facilities had zinc

tablets (21%) and ready to use therapeutic food RUTF (11%) (Table 10).

Except for HIV/AIDS, nearly all the facilities carried out behavioural change communication (BCC) to address current maternal, newborn, and child health interventions using mix information, education and communication (IEC) methods such as bill boards, posters, pamphlets, handbills, awareness campaign and occasionally drama. More than half (59%) had teaching aids and 38% have public addressing system, very few health facilities had models and audiovisual equipment (Table 11).

Table 9: Child health services, medicine, equipment and supplies.

Variables	Frequency	Percentage (%)
Service provision		
Management of common childhood illnesses	80	90.9
Referral	86	97.7
Counseling of care givers	84	95.5
Adequate and appropriate complementary feedings	66	75
Follow-up	84	95.5
Growth monitoring	67	76.1
Deworming	78	88.6
Treatment of children according to IMCI guidelines.	47	53.4
Routine immunization	87	98.9
Equipment and supplies		
Registers	84	95.5
Height boards	60	68.2
Weighing scale	84	95.5
Tape measures	76	86.4
Thermometers	67	76.1
Chart booklet	28	31.8
Assessment forms	42	47.7
Tongue depressor	34	38.6
Auroscope	30	34.1
Medicines	-	
ACT	75	85.2
Amoxicillin	34	38.6
Cotrimoxazole	35	39.8
Salbutamol tablets	20	22.7
Nebulized salbutamol	9	10.2
Low osmolar ORS	34	38.6
Zinc tablet	16	18.2
Ciprofloxacin	24	27.3
Paracetamol	50	56.8
Quinolone ear drops	7	8.0
IM quinine	19	21.6
Paraldehyde	17	19.3
IM chloramphenicol.	23	26.1
Gentian violet	33	37.5
Hydrocortisone	24	27.3

Table 10: Child nutritional services, medicines, equipment and supplies.

Variables	Frequency	Percentage (%)
Service provision		
Infant and young child feeding	57	64.8
Nutrition education	80	90.9
Food demonstration	56	63.6
Growth monitoring and promotion	56	63.6
Vitamin A supplementation	76	86.4
Early initiation of breastfeeding	80	90.9
Promotion of EBF	61	69.3
Appropriate and adequate complementary feed	59	67.0
Demonstration & preparation of adequate diet	57	64.8
Management of severe acute malnutrition	29	33.0
Micronutrient deficiency control	16	18.2
Equipment and supplies		
Cooking and food demonstration space.	45	51.1
Food demonstration materials/tools	46	52.3
Weighing scales	82	93.2
MUAC tapes	73	83
Height measuring boards/scale	61	69.3
Growth monitoring card	53	60.2
Kerosene stoves/cooking utensils	51	58
Medicines		
VIT A	54	61.4
Albendazole	49	55.7
Zinc tablet	18	20.5
Ready to use therapeutic food (RUTF)	10	11.4
Iron tablet	49	55.7
Folic acid	62	70.5

Table 11: Health promotion services.

Variables	Frequency	Percentage (%)
BCC service provision		
Safe motherhood	77	87.5
Newborn	76	86.4
Family planning	84	95.5
IMCI	46	52.3
Nutrition	78	88.6
HIV/AIDS	48	54.5
Malaria	88	100
Immunization	86	97.7
Service management		
Health talks on KHHPs	75	85.2
Social mobilization	82	93.2
Material distribution	59	67
Counseling	82	93.2
Outreaches	78	88.6
Hand-washing demonstration	79	89.8
Equipment and supplies	·	
Public address system	33	37.5
Models	20	22.7
Audiovisual equipment	11	12.5
Teaching aids	52	59.1

DISCUSSION

PHCs are usually the first point of access to health care by patients however assessment of the health care system in Nigeria especially regarding maternal and child health services in recent times does not only indicate that it is dreary but efforts for improvement have had little or no impact especially in rural areas.¹¹ When inadequacies to provision of these services exist a balance may not be met between health services demand and supply, hence the need to evaluate the services provided. This study revealed that more than three quarters of the facilities assessed were found to have accessible roads, and the general appearance and environment was clean. This will significantly reduce some of delays that may due to bad and inaccessible roads and will also allow for prompt referral when the need arise. These findings are similar to findings in Nnewi Nigeria where the facilities studied were in good condition. 10 PHC services are primary responsibility of various state in the country and some of state leadership have invested so much financial resource to revitalize their facilities. But contrary to this, what was obtained from the findings of an evaluation of primary health care in Nigeria, many of the PHC facilities were dilapidated with little or no evidence of maintenance or repair. 12 The difference seen here may be as a result of renovations done to majority of the health facilities in the state from donor agencies. However as regards important amenities like water and power supply less than half of the facilities examined had potable water and only a third reported adequate source of power supply. This was also observed in the study that evaluated PHCs where the facilities had inadequate basic amenities like water or power supply. Similarly the study from other parts of Nigeria showed lack of constant water supply in PHC facilities. 13,14 With regards service provision a significant proportion of facilities provide 24-hours maternal and child health services even staff posting and number of staff on leave respectively occasionally affected service delivery. This finding is not unusual as poor staffing of primary health care facilities, makes it difficult to guarantee 24 hour availability of services and unfortunately this discourages patients from accessing these services even when they need them. In some communities people have to travel over 5 km to access health care which may or may not be available to them because coverage is inadequate. Inadequacies in the number of human resource for health are a prevalent problem while some facilities do not even have one technical service provider is a clear indication of lack of equity in the distribution. The data indicates that though all the PHCs examined had shortage of health personnel, particularly doctors and midwives the CHEWs and JCHEWS (who are the main cadre of health workers in most PHCs) were averagely adequate compared to other health personnel. The findings here are very similar to what is found in most Nigerian PHCs were health personnel are unevenly distributed in all the facilities studied, and manpower less than the minimum staff complement recommended, with shortage of medical

officers and public health nurses. 10 The problem with this is that, even where other resources are available, human resources are needed to manage these resources, therefore not having enough skilled personnel may explain why some facilities can't offer 24 hours of maternal and child health services and this is significantly related to the quality of care received and inevitable maternal and child mortality rates. This finding is also in keeping with the Nigeria Reproductive Health Resources and Service Survey, which reported paucity of skilled birth attendants and the effect of same on health workers capacity to offer effective and efficient maternal health services. 15 Several studies have attributed high maternal mortality ratios to such inadequacies as rudimentary or absent managerial skills shortage of staff, drugs, equipment and supplies. It then suffices that the type and quality of care provided to women often determine their survival through the processes of pregnancy, labour and puerperium. 10,14,16-18 Of interest was the complete absent of Community health officers (CHOs) who are better qualified than CHEWs, from all the PHC facilities assessed. This has serious implication because of the major role this group of health workers plays in the implementation of primary health care using the ward health system in Nigeria. This is particularly important because of the emphasis of Universal Health Care (UHC) on the paradigm shift, with emphasis on utilization of skilled personnel for specific duties; looking beyond merely resolving the problems of shortages. 19 The results in this study also showed that greater than three quarters of facilities had staff trained on family planning and 63% on essential newborn care while less than a third had any staff trained on extended life saving skill, COPE, Infant and young child feeding (IYCF), Community management of acute malnutrition (CMAM) and Youth Friendly Health Services, this is in keeping with findings from a study in Kaduna Nigeria where most of the health personnel were adequately trained.²⁰ The study revealed that more than half of the facilities had essential drug list and 74% have drug store, unfortunately 44% of the health facilities had expired drugs on the shelf. Though this finding was different from other studies in Nigeria carried out on essential drugs availability at the PHC level, where none of the facilities surveyed operated a drug revolving fund scheme, and none had essential drugs list. The similarity was that in the facilities that had most of the drugs available, they were still insufficient. 14,16-18,20 Another study on difference health facilities in Nigeria also showed availability of expired drugs for some of the listed drugs. The implication is that patients in need of those essential drugs would have to source for them elsewhere or patients may be given expired drugs to take. It also implies that ability to respond to emergencies in relation to some common illnesses would be limited as a result of non-availability of drugs.²¹ In this study with respect to drugs, except for oxytocin/ergometrine where nearly half of the facilities had, very few facilities had other key emergency lifesaving drugs such as misoprostol, magnesium sulphate and diazepam. This is very worrisome as some of these drugs determine the outcome of a lot of complications and emergencies that occur during pregnancy and labour. Also of note is that even though nearly all the facilities offer focused antenatal services, delivery, postnatal care and family planning, just a quarter of them provide PMTCT of HIV. The quality of services rendered at healthcare facilities can be properly gauged from availability of medical equipment and drugs. In this study, cognizance was taken of the minimum standard required of PHC in Nigeria.²² Based on this minimum standard, some basic equipment and medications are expected to be found in a PHC facility. This is essential in order to facilitate delivery of timely and efficient services to healthcare users. Many of the facilities do not have the basic required equipment and supplies for maternal health services though greater number had clinical thermometer, weighing scale, blood pressure machine and stethoscope, findings are similar to the findings from other part of Nigeria and Pakistan where these basic supplies were not available at the primary and secondary facilities and these studies also noted that some medical equipment at the sampled healthcare facilities were no longer functioning. 21,23

Nearly all the facilities provide vaccination services to newborns and although nearly all the facilities have weighing scale, tape register, measures thermometers, very few had auroscope and tongue depressors. Generally majority had basic required equipment for the service provision, however with respect to medicine, only few facilities had zinc tablets. The state has so many development partners that support MCH services in addition to state investment. The study in Nnewi also showed that majority of the facilities had weighing scale (both bathroom and infant); but none had a tongue depressor. This finding was similar to those of other studies where none of the health facilities had the entire minimum equipment package available. 24-26 This scenario could hamper service provision and increase waiting time which may discourse patients accessing these services. There is strong need to ensure fair distribution of health workers in the state that all PHCs have at least minimum benchmark of health worker numbers and mix.

CONCLUSION

This study identified that most of the facilities studied provided a range of maternal and child health services necessary to run a primary health care center, however there are a significant performance gaps in service delivery. The health resources and the level of service provision in its current form may not lead to a significant improvement in maternal and child health in the state to guarantee universal health coverage. Government should therefore reevaluate the state of services delivered in healthcare facilities with a view of reequipping them with necessary drugs and medical equipment and human resources, given that essential drugs were poorly available and expired drugs were still kept on the shelves. There is also a need for ensuring that leakages in drug

acquisition at healthcare facilities are removed and expired drugs are disposed of appropriately.

ACKNOWLEDGEMENTS

The researchers hereby appreciate all data collector who ensured quality assurance during the field data collection and also the respondents for their valuable time and information provided.

Funding: Financial and material supports were provided by CHR and Sokoto state Primary Health Care Development Agency respectively for data collection and analysis

Conflict of interest: None declared

Ethical approval: The study was approved by the Sokoto Health Research Ethics Committee

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Cite this article as: Kaoje AU, Labaran S, Magashi AG, Ango JT. Improving maternal and child health: a situational analysis of primary health care centres of Sokoto state, Nigeria. Int J Community Med Public Health 2018;5:5052-62.