# NATIONAL NEWBORN CONFERENCE
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INTRODUCTORY PAPER: UNICEF
Neonatal Survival in Nigeria: Evidence versus Perceptions
Authors: Aboubacar Kampo, Kennedy Ongwae, Garba Safiyanu, Caroline Barebwoha, Anthonia Archie-Alogaga

Background
Nigeria’s neonatal mortality rate has declined from 48 per 1000 live births in 2003 to 40 per 1000 live births in 2008 and 37 per 1000 live births in 2013 (NDHS 2013). The infant mortality rate in 2013 was 69 per 1000 live births while under five mortality was 128 per 1000 live births. In absolute terms, the country loses 267,843 new-borns yearly, translating into about 744 new-born deaths daily (NPC, Projection census 2012).

The neonatal mortality in 2013 accounts for more than half (54%) of the infant mortality and more than a quarter (29%) of the under-five mortality. This data indicates that more than half of infant deaths occur during first 28 days of life and, that one quarter of under-five deaths occur during the first 28 days of life of children. The data further highlights the significant contribution of neonatal deaths to the overall child survival and that interventions for neonatal survival have potential to positively influence child survival outcomes.

Methodology
The data on perceptions on neonatal survival among Nigerians was collected using U-report, a UNICEF initiative for running polls on maternal and child survival and other development issues. The initiative is a Short Message Service (SMS) based platform through which poll questions are sent out to volunteer respondents called U-reporters, who in turn send responses to the questions at no cost to themselves. UNICEF is implementing a similar initiative in Uganda, Burundi, Democratic Republic of Congo, Malawi, Zimbabwe, Zambia, Indonesia, Sri Lanka, and South Sudan.

The poll results are shared with all the U-reporters via sms, on the U-report Nigeria website, through social media and directly with print and mass media. The polling platform therefore allows citizens to speak-out on what is happening in their communities, provides a forum for their opinions to be amplified through local and national media and, helps to reach out to key stakeholders and policy makers about the issues facing their constituents.

The power of the tool to influence policy and decision making is dependent on the number and spread of the U-reporters in the country as well as the extent to which the poll results are shared out. From the first registration in Nigeria; April 20th to date, about 65,000 U-reporters from all the 36 States of Nigeria and the FCT have voluntarily registered. This number is expected to grow to about 150,000 by the end of October, 2014 and to about half a million by December 2014.

Results from U-Report poll on neonatal deaths
A series of four poll questions were sent to the U-reporters starting with a question on awareness of any recent death of a new-born in their community. As shown in figure 1, only 21% of the 3899 respondents were aware of new-born deaths in their communities. Among the 3513 respondents to the second question, only 12% indicated that new-born deaths occur frequently in their communities. And, 48% of respondents (n=2968) to the third question thought that new-born deaths constituted a problem in their communities. The respondents were finally requested to give their preferred solution for reducing new-born deaths. Figure 2 below shows, antenatal care was the preferred solution for most respondents. Delivery in health facilities and postnatal check-up during the first 2 days of life were least preferred.

Discussion conclusions and recommendations
The U-report poll on new-born deaths revealed low levels of awareness of the deaths among the respondents. The perceived frequency of the deaths in the communities was also low and for about half of the respondents, new-born deaths were not perceived as a problem. Going by the 2013 Nigeria DHS mortality estimates and population projection, the country loses about 267,843 new-borns yearly translating into 744 new-born deaths daily (NDHS 2013 & Population Projection 2012). The numbers involved in these deaths are too large to go unnoticed yet, new-born deaths seem to have taken a silent pathway, discrete in occurrence and on a sure path to perpetual invisibility unless appropriate actions are taken.

The evidence based interventions and packages to save new-born lives have been documented comprehensively (Martines J., Paul V.K., Bhutta Z., Koblinsky M., Soucat A., Walker N., Bahl R., Fogstad H., Costello A., 2005) including other more recent breakthrough innovations that can save children (PATH, 2013). The evidence on saving new-born lives is strongly in favour of skilled birth attendance during delivery, postnatal home visit during first two days of life and integration of new-born care into Integrated Management of New-born Childhood Illness package. Assuming a 90% coverage Intrapartum care and postnatal care are predicated to account for a 18% and 17% reduction in neonatal deaths respectively against a 7% reduction for antenatal care (Darmstadt G.L., Bhutta Z., Cousens S., Adam T., Walker N., de Bernis L., 2005).

Going by the new-born death U-report poll, respondents perceived antenatal care as a preferred solution for reducing neonatal deaths with delivery in health facility and postnatal care being least preferred. Hence, perception on effectiveness of the intervention packages is at variance with the evidence. Perception over the new-born deaths is likely to affect judgement and judgement at household level is known to be an important determinant of health seeking behaviour (GSR, 2008 & WHO n.d). There is therefore need to bridge the gap between perception on new-born deaths and the evidence for reducing these deaths.
ABSTRACT 1:
NIGERIAN CONSENSUS STATEMENT ON MANAGEMENT OF NEWBORN JAUNDICE
MANAGEMENT OF JAUNDICE AND PREVENTION OF EXTREME HYPERBILIRUBINEMIA IN
NEWBORN BABIES

The Nigerian Society of Neonatal Medicine (NISONM) AND Paediatric Association of
Nigeria (PAN)

Background: Annually, 24 million live births (18% of 134 million livebirths ≥32 weeks GA
from 184 countries) are at risk of neonatal jaundice-related adverse outcomes. Neonatal jaundice occurs in most newborn infants and is usually benign or
physiologic. The risk for death has varied from but documented with kernicterus from
Rhesus disease, as 38, 28, 28, and 25 per 100,000 live births for Eastern Europe/Central
Asian, Sub-Saharan African, South Asian, and Latin American regions, respectively. Although the disease is very bad, it can always be prevented in a timely
manner. Hence the validity of a Consensus Statement from the Specialist-care-giver of
newborn infants in Nigeria.

Subjects and Methods: We have, therefore, resolved, through a collective initiative, to
stop this trend with aggressive interventions. This Consensus Statement provides an
overview of methods of tackling this devastating issue.

Results: The key elements to preventing rapidly rising jaundice that reaches levels of
extreme hyperbilirubinemia will be presented and discussed. An Algorithm for early
detection and management will be proffered.

Conclusion: These guidelines aim to promote reduction in the frequency of extreme
neonatal hyperbilirubinemia, while minimizing the risk of unintended harms, e.g.,
increased anxiety, decreased breastfeeding, or unnecessary treatment. Such a
system, that manages newborn jaundice, needs to be embedded and structured in
the systems of healthcare at all birthing facilities. Regional translational research
should be promoted to understand better the unique interaction of risk factors and
mechanisms of bilirubin neurotoxicity that could modify potential therapeutic
interventions.
ABSTRACT 2

Title: Neonatal transport practices in Ibadan and outcome of transported neonates

Tongo O O, Abdulraheem M A, Orimadegun A E, Akinbami F O

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Background: It is crucial to move sick neonates in optimally controlled conditions to ensure survival and good outcomes. Neonatal transport is not being sufficiently addressed in Nigeria.


Subjects and methods: Information on transportation, pre- and intra-transport care of neonates were obtained at presentation at the University College Hospital (UCH). Clinical parameters arrival and at 48 hours were recorded.

Results: There were 401 neonates comprising 67.1% term, 31.4% preterm and 1.5% post-term, all without prior communication with UCH. There were 82.3% health facility, and 17.7% self-referrals. The mean distance travelled was 10km (0.5km - 80km). The modes of transport included private vehicles (43.9%), commercial vehicles (40.6%), motorcycles (9.0%), ambulance (4.0%) and on foot (2.5%). Only 3 (0.7%) were transported in incubators and none in Kangaroo Mother Care position. Only 42.0% had referral letters and 7.0% were accompanied by medical personnel.

Pre-transport care included resuscitation (18.2%), intravenous fluid/feeding (24.4%) and supplemental oxygen (14.0%) and care was continued intra-transport in less than 20.0%.

On arrival, 4.7% were dead and hypothermia (35.1%), hypoxaemia (28.4%), hypoglycaemia (12.5%), apnoea (9.0%), metabolic acidosis (8.2%), and BP (16.5%) were observed. The mean ± SD TRIPS score was 21 ± 18. Neonates who were not fed intravenously or orally pre- or intra-transport, had higher risk of death within 48 hours of admission (OR = 4.67; 95% CI = 1.81, 12.05).

Conclusion: Neonatal transport practices in Ibadan are suboptimal with an increased risk of immediate morbidity and mortality. It is expedient to give adequate attention to neonatal transport practices in order to achieve improved outcomes for sick neonates.
ABSTRACTS 3

PATTERN OF ADMISSIONS IN SPECIAL CARE BABY UNIT OF ABUTH: A YEAR ANALYSIS.
*Department of Nursing Services ABUTH Zaria ** School of Nursing ABUTH Zaria *** Department of Paediatrics ABUTH

ABSTRACT

**Background:** A regular review of medical admission patterns necessary to determine the type of conditions encountered in our special care baby unit. This would guide in updating nursing knowledge of the prevalent cases which would lead to creating an enabling environment for successful management of these patients. The information can also be used to plan for preventive health education and health services for a community.

**Objective:** To determine pattern and trend of admission in special care baby unit of Ahmadu Bello university Teaching Hospital Shika Zaria.

**Methods:** A retrospective review of all new born cases admitted into special care baby unit of ABUTH over a one year period. The records reviewed through information obtained from the admission and discharge register and nurses records.

**Results:** Total 644 neonates were admitted in special care baby unit. There were 377 males and 267 females (M:Fratio3:2). Majority of admissions were referred from other centers(51%) while the remaining were in-born (49%). Age ranges from birth to 28 days mean age of 4.7 days Average length of stay was 6.8 days. The commonest reasons for admission were neonatal jaundice(31.3%) and perinatal asphyxia(17.7%).

**Conclusion:** Despite efforts at improving child health, neonatal jaundice and birth Asphyxia remain major challenges with its antecedent problem of permanent health problem. Hence the need for improved and safe obstetric services, newborn care, as well as promoting newborn follow up.

**Keyword:** Pattern; Admission; Ahmadu Bello University Teaching Hospital.
ABSTRACTS 4

NEONATAL RESPIRATORY SUPPORT IN NIGERIA: CHALLENGES AND OPPORTUNITIES

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BACKGROUND:

The Neonatal Paediatrician in Nigeria should be innovative as originality is crucial to New-born survival. The current context of young child mortality indices cannot be reversed if New-born health issues are not specifically addressed.

OBJECTIVES:

To highlight the need for neonatal respiratory support in an effort to address the care needs to save babies lives.

SUBJECTS AND METHODS:

We reviewed outcomes by trends in the neonatal mortalities over the decades from the 1970s to current trends of the 2014 by a review of the records for the weekly mortalities, the categories of babies and the causes of the Neonatal deaths.

RESULTS:

In the 1974-1976 era, the major cause of Mortality was Birth Asphyxia (BA) with an attendant perinatal mortality of 80.9/1000. Mortality trends over the decades have changed. The decline to 33.4/1000 of the 1976 to 1980 was linked to the introduction of delivery room resuscitation with a reciprocal decline in BA rate. Thereafter neonatal mortality rate has continued to increase because of the three fold rise in the very preterm population of admission’s; 6.5% in 1985 to 19.3% in 2013. This population is predisposed to Respiratory distress and failure. Although Respiratory support as part of intensive care is lifesaving, it is at high cost to the patient and to the system. Resources are meagre or not available. The cost to the patient ranges from additional N165, 000 to N265, 000 with administration of surfactant, use of CPAP or ventilator.

CONCLUSION:

Regionalisation of such care at Specific tertiary regional centres may reduce costs whilst secondary level centres could offer basic respiratory support with the CPAP.
ABSTRACTS 5
Title: Newborn care practices in the first week of life among mothers in Ibadan
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Corresponding author: Labaeka A A
Key words: Newborn, Care, Practice

Background: Essential newborn care is a strategy designed to improve neonatal outcomes if well applied.
Objectives: We assessed the level of compliance of newborn care practices among mothers in Ibadan with the provisions of the essential newborn care package.

Subjects and methods: 678 mothers who delivered at the Adeoyo maternity hospital, Ibadan were visited at home between the 8th and 10th day after delivery. Information about care of their newborns was obtained with the use of questionnaires.

Results: The mothers were predominantly Yorubas (96.6%), aged 15 - 47 years and 33.3% were nulliparous. The babies weighed 1500g – 5000g and 15.6% were preterm. 9% of the mothers lit fires/lanterns to keep their rooms warm. Only 9.3% mothers always washed hands, 83.5% sometimes and 7.2% never did before handling their babies. After nappy change, 84 (12.4%) mothers routinely washed their hands with only water and 552 (81.4%) with soap and water. Exclusive breastfeeding rate was 93.8% from birth and had dropped to 72.6% by 8th – 10th day of life though only 21.6% commenced by 1 hour of age. Cord care was with alcohol in 97.2% and hot fermentation with herbs in 2.4% of cases. Routine eye care included instillation of drops of breastmilk 18.2%. By the 10th day of life, 61% of the babies had commenced immunisation and 85.5% had not had any post natal follow up.

Conclusion: Many mothers’ practices conformed with most of the provisions of essential newborn care but few still engaged in harmful practices that should be discouraged. There is a need to ensure early post natal follow up in order promote continuous compliance with essential newborn care provisions.
ABSTRACTS 6
NEONATAL EMERGENCIES AT THE SPECIAL CARE BABY UNIT OF AHMADU BELLO UNIVERSITY TEACHING HOSPITAL ZARIA: AN EIGHTEEN-MONTH REVIEW

Authors: Abdulkadir I, Hassan L, Abdullahi F, PurdueS, Adebiyi N, Abubakar Y, Ogala WN

Background: In Nigeria, almost half of infant mortality rate (45%) is due to neonatal death. Neonatal emergencies such as jaundice, sepsis, perinatal asphyxia and birth injuries constitute a significant proportion of these deaths. Efficient recognition and prompt management of these illnesses can be lifesaving. There is therefore a need to determine the common neonatal emergencies encountered in our environment, however there is a dearth of data on the prevalence of neonatal emergencies in the region.

Objectives: To determine the type and hospital prevalence of neonatal emergencies the SCBU of Ahmadu Bello University Teaching Hospital Zaria.

Methods: A retrospective review of records from January to June 2014 of all neonates admitted into the neonatal unit of ABUTH Zaria. The primary variables were sex, diagnoses, and outcome.

Results: 680 babies with neonatal emergencies were admitted during the review period making the prevalence of neonatal emergencies during the review period 68% of total admissions. There was male predominance constituting 57.35%. 244 were born in ABUTH and admitted directly into the special care baby unit while 436 were born elsewhere and, therefore, referred to ABUTH. The commonest emergency was neonatal jaundice (47.35%), followed by neonatal sepsis (28.38%), perinatal asphyxia (21.18%), and anaemia following haemorrhage due to uvulectomy and haemorrhagic disease of the newborn (2.06%). Others are birth injury, poisoning and neonatal tetanus (1.03%). 65 (9.6%) of the patients died, while 615 were discharged.

Conclusion: Neonatal emergencies are commonly seen in Zaria with majority of the cases coming from the community. There is a need for further studies to characterize the risk factors for these neonatal emergencies in order to guide focused preventive campaigns in the community with a view to improving our neonatal and infant mortality indices.
ABSTRACTS 7
Title: Facility readiness to provide emergency obstetric and newborn care (EmONC) services: an assessment of 30 health facilities in three states of Nigeria
Authors: Emmanuel Otolorin, Adetiloye Oniyire, Gbenga Ishola, Bright Orji
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Background
It is estimated that about 241,000 newborns die annually in Nigeria. This represents about 25% of all under-5 child deaths.

Study objectives
The primary purpose of this assessment was to determine the readiness of 30 selected health facilities in Akwa Ibom, Benue and Imo States to provide evidence-based interventions for women and newborns experiencing life-threatening complications.

Subjects and methods
The study participants included 118 health care workers in the maternity unit as well as 30 facility managers. The managers were interviewed while the health providers' knowledge and skills were assessed. An Android-based online data collection APP, XLSForm, CIETmap was used to input data using tablets. Only descriptive quantitative and qualitative analyses were required.

Findings
Most of the assessed health facilities were government owned (76.7%). Lack of running water was a problem in about two-thirds of health facilities. Double qualified nurse/midwives were the staffing cadre most likely to be available 24 hours a day. Less than 40% of health facilities provide antenatal corticosteroids except in teaching hospitals (66.7%). Chlorhexidine application to the umbilical cord is done in less than 50% of facilities while newborn resuscitation supplies were not available in about a third of facilities. HIV counseling and testing services as well as intermittent preventive therapy (IPTp) for the control of malaria in pregnancy were generally being provided. There were major gaps in health provider knowledge and skills. For example, most health care workers could not achieve a good seal with the Ambu bag and mask during skills practice on models.

Conclusions
The assessment has shown a fair state of readiness to provide EmONC services, especially in the teaching and private hospitals. However, there is significant room for quality improvement. Lack of knowledge and skills can be overcome through competency based training while the health systems can be strengthened through infrastructural renovations as well as donation of equipment and consumable supplies.

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ABSTRACT 8
Photo-irradiance measurements: a possible means of assessing Quality of Phototherapy
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FMC, Asaba*UBTH Benin*

BACKGROUND:
Acute Bilirubin encephalopathy is the most dreaded complication of hyper-bilirubinemia and can be averted by effective Phototherapy when it meets with quality of care standards. Like treatment, the effective dosage and mode of administration must be adhered to. None compliance to these guidelines may mean ineffective therapy.

OBJECTIVE:
To assess the Photo -irradiance of the phototherapy lamps used for the management of neonatal jaundice in the new-born units of tertiary and secondary level hospitals in two cities so as to enhance the quality of care.

SUBJECTS AND METHODS:
Relevant literature was reviewed. Using the Konica Minolta Biliblanket meter II serial No 41001414, we measured Photo-irradiance of phototherapy devices that incorporate fluorescent, halogen, fiber-optic, or blue light-emitting light sources. Measurements were taken at various distances and infants’ surface exposed were noted.

RESULTS:
Mean photo-irradiance at 10cm, 15cm, mean mattress distance of 25cm from tertiary hospitals ranged from 10.75μW·cm\(^{-2}\)·nm\(^{-1}\); 16.95μW·cm\(^{-2}\)·nm\(^{-1}\); 7.6μW·cm\(^{-2}\)·nm\(^{-1}\); 9.6 μW·cm\(^{-2}\)·nm\(^{-1}\); 4.4μW·cm\(^{-2}\)·nm\(^{-1}\) to 8.5μW·cm\(^{-2}\)·nm\(^{-1}\). However when the bulbs were replaced with new ones, mean irradiance were 28.9μW·cm\(^{-2}\)·nm\(^{-1}\); 20.1μW·cm\(^{-2}\)·nm\(^{-1}\) at 10cm and 15 cm respectively. 90% of the devices had blue light. Most babies were exposed with diapers on. 90% of devices were commercially manufactured.

CONCLUSION:
It is therefore recommended that: Photo-irradiance on the available devices be regularly monitored; babies be placed in the range of at least 15 cm from the device and nursed without diapers whilst serum bilirubin cheeks be performed at least daily for effective quality care.
Quality of Care of the Newborn at First Referral Health Facilities in Nigeria

FMOH/WHO

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Background
In Nigeria efforts by the FMOH to improve quality of care in a systematic manner started in 2003. With support from partners, FMOH articulated the Integrated Maternal Newborn and Child Health Quality Assessment Tool for first level referral health facilities.

Objectives
To improve quality of health care provided to pregnant women and sick children at first referral health facilities in Nigeria.

Subjects and Methods
The adapted IMNCH quality of care assessment tools were used in 6 states by trained teams. Key areas assessed were General Information and Hospital Systems; Maternal Case Management; Neonatal Case Management and Pediatric Case Management. The assessment was both qualitative and quantitative using skilled specialists.

Results
The Neonatal Case Management assessment spanned through Routine care, Nursery facilities, Special baby care units and Neonatal Intensive Care Units. Key findings were Lack of Guidelines and standards for MNCH Services at the referral health facilities; Lack/Poor newborn resuscitation unit; Work equipment not available in many situations; availability of some free services for under five children; Decentralization of pharmacy, medical records and laboratory service found in some health facilities among others.

Institutionalization of Pediatrics emergency room and newborn care units is necessary and giving the population served by these facilities, there is need for supervising Pediatricians/Neonatologists.

Conclusions
Institutionalization of quality of care assessment at first level referral health facilities is key for improved newborn care.

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ABSTRACTS 10

SPECTRUM OF NEONATAL DISORDERS REQUIRING RESPIRATORY SUPPORT IN UBTH, BENIN CITY, EDO STATE.

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Unit of Neonatology, University of Benin Teaching Hospital

Background

Respiratory support, though not curative may be essential in the management of respiratory and non-respiratory disorders. Such support could be invasive or non-invasive and may be for short or long periods.

Methods

The diagnosis, gestational age, sex, mode of delivery, weight category, indication for support, and duration, were extracted from the prospectively documented records of the reviewed cases for the period January to June 2014.

Results

49 out of 576 babies admitted during the study period received respiratory support, giving a support rate of 8.5%. Their gestational ages ranged from 28-41 weeks, mean GA 33.3 wks. The male:female ratio was 0.88:1. Term babies were 24.5%, 71.4% preterm & 4.1% post term babies. The weight categories: Normal birth weight (34.7%), LBW (24.5%), VLBW (34.7%) and ELBW (6.1%). Non-invasive support were used in 33 (67.3%) while 16 (32.7%) had invasive support. RDS (69.7%) is significantly associated with the use of non-invasive support while ABE (31.2%) is significantly associated with invasive support (p=0.001). Respiratory distress is the commonest indication for non-invasive support while respiratory failure is the commonest indication for invasive support.

Conclusion

The spectrum of neonatal respiratory conditions in this study reflects the cases managed in most neonatal units in Nigeria. There is an urgent need to commence and sustain respiratory support in most of our neonatal centres.
ABSTRACTS 11
The effects of neonatal resuscitation training on the Apgar scores of babies born at The National Hospital Abuja (NHA), Nigeria
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Background
Perinatal asphyxia accounts for 28% of Nigeria’s very high neonatal mortality rate.1 In some settings resuscitation training has improved Apgar scores.3 Because randomized trials of training are difficult to perform in a single setting, use of improvement science methods provides an appealing alternative.

Hypothesis/objective
Using all births at National Hospital Abuja (NHA), structured neonatal resuscitation training will reduce the incidence of birth asphyxia by 20%, by June 2014, as measured by 1-, 5- and 10-minute Apgar scores.

Subjects and Methods
One-, five- and ten-minute Apgar scores were aggregated weekly beginning February 2012. All births at NHA were potentially affected by the intervention. Birth asphyxia was defined as any Apgar score less than 7. Standard improvement science methods and statistical process control analyses were used including special cause rules that identified probabilities of less than 2% (p < 0.02). Baseline data were collected for 16 months prior to initiating interventions. To ensure reliability and validity of Apgar scoring, trainings on scoring were held for labour and delivery and Paediatric staff by NRP instructors. Several interventions were offered including training sessions to 70 doctors & nurses on neonatal resuscitation using Helping Babies Breathe tools. Apgar scores were aggregated weekly over 25 months. Control charts with 3 standard error confidence limits were used to monitor the proportion of scores greater than ≥7.

Results
From February 2012 through March 2014, there were 3,427 births at NHA, approximately 33 births per week. The incidence of birth asphyxia as defined a priori was 33%, 17% and 10% while post intervention the incidence was 18%, 17 % and 6% at 1-, 5- and 10- minute Apgar scores respectively.

Conclusions
• Increased communication and training of delivery personnel is associated with reductions in measures of birth asphyxia of 45%, and 40 % at 1 and 10 minutes respectively
• Our study demonstrates the feasibility and utility of using improvement science methods to assess and improve perinatal outcome in low-resource settings.
ABSTRACTS 12

The impact of Vaccination on Newborn Health in Nigeria
Mbewe A

Background
Vaccine preventable diseases are a major cause of childhood morbidity and mortality in Nigeria. According to WHO a child is fully vaccinated if he or she has received: A BCG vaccination against tuberculosis, Three doses of DPT vaccine to prevent Diphtheria, Pertussis and Tetanus (DPT), At least three doses of polio vaccine and One dose of Measles Vaccine. These vaccinations should be received during the first year of life and recorded on a health card given to the parents or guardians.

Objectives
To determine the status and coverage of the vaccination of the newborn, related factors influencing the vaccinations and the impact that vaccination has on newborn health.

Methods
The information was obtained from the Nigeria Health Demographic Surveys of 2003, 2008 and 2013. Additional information was obtained from PUBMED reviews of Newborn and BCG, Polio and Tetanus conducted on 08 October 2014.

Results
Results showed that not many mothers have Vaccination Cards for their babies. Poor newborn indices were associated with rural dwelling, poor mothers education, living in the North East and North West Zones, Lack of information, Fear of side effects and Vaccination Post are far.

Conclusion
Tuberculosis and Polio are not major causes of Neonatal morbidity and mortality but Neonatal Tetanus still is in Nigeria. Vaccination against TB, Tetanus and Polio in the newborn is still mandatory to ensure child survival.
Title: Neonatal Tetanus: Are we winning the war
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ABSTRACT

Background: Seventy-three percent of Neonatal tetanus deaths occur in eight countries globally. Nigeria (16%) is second only to India (23%) as the country with the highest Neonatal tetanus deaths.

Objectives: To determine if we are winning the war against deaths from Neonatal tetanus.

Subjects and Methods: Hospital records on Neonatal tetanus cases treated at the University of Port Harcourt Teaching Hospital from 1995 to 2014 were reviewed. The records were retrieved and reviewed for age, sex, presenting complaint, mothers immunization status, examination findings, duration of hospitalization and outcome of illness.

Results: Three hundred and thirteen neonates comprising 182 (58%) males and 129 (41%) females were treated. 2 (0.006%) did not have any record of their sex. Most of the mothers were unimmunized and delivered outside health facilities. Fifty-one percent of the newborns with neonatal tetanus in this study died. There was not much difference in the number and characteristics of the cases over this period.

Conclusion: There appears to be an upward trend in mortality of Neonatal tetanus cases as the last review of neonatal tetanus in UPTH in 2009 gave a mortality of 50% and as such we are not winning the war the battle rages on. This review was a comprehensive one from 1999-2014, but data for 2009-2014 gave a mortality of 68.75% while the previous review of 1995-2009 gave a mortality rate of 50%

Key words: Neonatal tetanus mortality winning.
ABSTRACT 14
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Disclaimer: Opinions expressed in this paper are entirely those of the authors and may not be construed as representing those of the institutions.
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Key words: Umbilical Cord practices, Neonatal health, Lot Quality Assurance Sampling, Nigeria.

Background: Neonatal mortality rate in the north-east zone of Nigeria is as high as 44 per thousand life-births and neonatal sepsis is a major cause of these deaths. Umbilical cord practices may predispose neonates to cord infection, sepsis and avoidable deaths especially in environments where majority of births occur at home and where no one was present.

Objective: To evaluate cord care practices in Sokoto State and estimate the degree of exposure of neonates to these practices.

Method: Cross-sectional surveys using the Lot Quality Assurance Sampling (LQAS) technique were conducted in 2012 and 2013 to obtain data from a 437 households in 19 clusters in each of the 23 LGAs, using a multistage random sampling technique. Information on births and cord care were obtained from caregivers.

Results
Trained health personnel cut the umbilical cord in only 15-17% of births. A razor blade was used in 91% (2012) and 84% of deliveries. Local herbs (18.4% in 2012, 8.6% in 2013), hot compress (33.4% in 2012, 5.5% in 2013), methylated spirit (10% in 2012, 6.5% in 2013), cow dung (0.2% in 2012, 11.9% in 2013) and chlorhexidine (0.8% in 2012, 9.2% in 2013) were commonly applied on the cord. Home deliveries were 85.9% (+/-2.4%) and 88.8% (+/-2.2%) in 2012 and 2013 respectively.

Conclusion: Cord care practices in Sokoto State are limited in preventing cord infection, neonatal sepsis and avoiding neonatal mortality. Interventions are required to minimize the effects of unwholesome practices and to increase the use of Chlorhexidine gel.
ABSTRACTS 15
John Quinley and Mounkaila Abdou Billo; with the support of USAID Nigeria.

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Title: Opportunities for Saving Newborn Lives in Nigeria: Evidence from National Surveys

Background:
Nigeria has high rates of newborn mortality and is refocusing its efforts on ways to reduce newborn deaths. Recent national household and health facility surveys - the 2013 Nigeria Demographic and Health Survey (NDHS) and Service Delivery Indicators (SDI) surveys - can provide insights into factors associated with newborn mortality in Nigeria compared to global patterns, which can help in thinking through strategies to approach the problem in Nigeria.

Objectives:
Re-analyze the 2013 NDHS and SDI surveys to highlight aspects of newborn mortality and services that are not found in the disseminated reports.

Subjects and Methods:
Original data from both surveys were obtained and analyses carried out to illustrate issues for newborn care planning in Nigeria. These included analysis of data not included in the survey reports, re-analysis of indicators in new ways and representation of data to highlight newborn issues.

Results:
Given that skilled birth attendance varies from less than 20% to over 80% in Nigeria’s zones, there is relatively little improvement in newborn mortality between zones (from 40/1000 to 30/1000). Also, among births currently taking place in both public and private health facilities, newborn mortality rates are in the mid-30s per 1,000. Both of these point to problems with quality of care. Issues of adequacy of staffing, staff skills, infrastructure and supplies inhibit the ability of health facilities to provide quality neonatal care.

Conclusion:
Successful programs to reduce newborn mortality in Nigeria will need to address both coverage and quality issues if they are to succeed. In some states with already high service coverage, most efforts will need to be directed to improving quality of care in both public and private facilities to substantially reduce newborn deaths.
ABSTRACTS 16
Modeling reduction in maternal and child mortality in Bauchi State using Lives Save Tool (LiST) model.

Masduk Abdulkarim, Nosa Orobaton, Dele Abegunde, Usman Al-Rashid, Ibrahim Alhassan Kabo

Background
The package of essential maternal, newborn and child care includes antenatal care, obstetric care and skilled birth attendants with the requisite ability to manage obstetric complications and to resuscitate newborns at birth. Also included are the ability to promptly and appropriately treat maternal infections, ensure clean cord care at birth and the promotion of immediate and exclusive breastfeeding. It is necessary to evaluate these interventions in order to know which programs are working and which ones have failed to deliver expected results.

Objective:
To estimate the number of deaths that could be averted or the lives saved by scaling up selected maternal and child health interventions using Lives Saved Tool (LiST)

Method:
The LiST model was used to estimate number of deaths that could be averted by improving the coverage of antenatal Care, Skilled Birth Delivery, Exclusive Breast Feeding, Misoprostol, Chlorhexidine and vitamin A supplementation interventions. LiST establishes causal relationships between interventions and cause-specific mortality among women aged 15-49 and children younger than 5 years. Maternal and child mortality rates for Nigeria as published in the demographic and health survey were used.

Results:
Assuming 20 percentage points improvement in coverage of specified interventions, about 2457 deaths in children under five and 271 deaths in women aged 15-49 could be averted during a three year implementation period.

Conclusion:
Using the four specified interventions for maternal and child health, we demonstrated that with improved coverage, maternal and child deaths could be reduced, assuming implementation challenges associated with each intervention are addressed
ABSTRACTS 17
HELPING BABY BREATHE (HBB) TRAINING FOR MIDWIVES: Lessons from Sokoto, Northwest Nigeria. Shoretire KA, Orobaton N, Otolorin E

BACKGROUND: The North West Zone, which includes Sokoto State has a high neonatal mortality rate of 44/1000 live births, and birth asphyxia is a major cause of newborn death. The essential skills needed for the prevention and effective management of asphyxia is often lacking as 94% of Sokoto births took place at home without skilled attendants.

Methodology: The 62 midwives who participated in the Helping Baby Breathe workshop in April-May 2014 were at pre-test, asked five key questions on birth asphyxia (previous HBB training, golden minute, previous use of bag/mask, cases seen in the last month) before a recent training and were assessed at post-training follow up. Hands-on, competency-based methods were used to increase skills of the participants.

Results: At post-test, 62 midwives correctly defined golden minute up from just one midwife at pretest; all 62 demonstrated understanding of HBB practices, correctly performed tasks on the routine care of the newborn, and made correct decisions on WHEN AND HOW to use bag and mask (up from 6 midwives at pre-test). The 3-4 months post-training supervision to 48 of the trainees showed the retention of skills for HBB. In all, 41 out of 48 trainees had applied HBB skills on newborns within 8 weeks after posttest.

Conclusion: The use of HBB package is very useful for improving the skills of service providers for reducing the incidence of birth asphyxia at the PHC facilities. It is recommended that midwives be exposed to HBB before deployment for maternities.
ABSTRACTS 18

Partnerships for Improving Breastfeeding Practices in Nigeria: A Possible Framework for Action
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Key Words: Breastfeeding, Community Action, Newborn, Nigeria, Partnerships,

Abstract

Background:
Nigeria’s breastfeeding indicator has not improved significantly for a decade. Little is known about the factors that challenge mothers from initiating and continuing to breastfeed exclusively in the hospital, at home and when they return to work. The National Demographic and Health Survey (NDHS) 2013 showed that only 17% of children under six months benefitted. Equally alarming is the fact that only one third of all newborns actually benefit from the protection of early initiation of breastfeeding (EIBF). Stakeholders agree that forging broad-based partnerships for action to improve breastfeeding is an important strategy.

Objective:
To identify the advantages of partnerships for scaling up breastfeeding in Nigeria and proffer a possible framework for action.

Methodology:
This paper presents analysis based on publicly available decade long datasets from NDHS: 2003, 2008 and 2013, as well as desk review of relevant guidance documents for policy. It also reviews recent studies on public private partnerships and frameworks for health. The call for partnership on the September 2014, workshop titled “Nigeria Public Private Partnership Workshop” held at the United Nations’ General Assembly (UNGA) week forms the foundation for analysis.

Results:
There is evolving broad-based partnership to support Nigeria to address the challenges around breastfeeding, but no framework for action currently exists and limited workplace interventions. The advantages of community-based partnerships for health are well documented.

Conclusion:
To successfully scale up interventions around the flagging breastfeeding indicator there is need to forge strong public-private partnerships with well-developed community action framework for breastfeeding targeting the home, community and workplace.
ABSTRACTS 19

PRELACTEAL FEEDING PRACTICES AMONGST MOTHERS ATTENDING IMMUNIZATION CLINIC IN A TERTIARY HOSPITAL IN PORT HARCOURT.
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ABSTRACT
Background: Breastfeeding pattern established in the immediate neonatal period is a determinant of the long term breastfeeding behaviour.
Objectives: To determine the prelacteal feeding practices of mothers attending the immunization clinic in University of Port Harcourt Teaching Hospital.
Subjects and Methods: This is a cross sectional hospital based study carried out from January to March 2014. A structured, self-administered questionnaire was distributed to mothers whose babies were 0 to 9 months old, who came for Immunization in UPTH. Questions asked included socio-demographics, the first feeds given immediately after birth, how long it took to commence breastfeeding and reasons for giving any feeds other than breast milk.
Results: A total of 207 mothers participated in this study, mean age 30.73±4.129SD. 146 (70.5%) mothers gave breast milk as the first feeds to their babies, 41 (19.8%) gave glucose water, 11 (5.3%) gave infant formula and 9 (4.3%) gave water. 133 (64.3%) babies were suckled, 58 (28%) babies were feed with cup and spoon, 13 (6.3%) with feeding bottle and 3 (1.5%) were finger fed. The commonest reason for not giving breast milk as the first feed was because breastmilk did not flow. Majority of the babies were put to breast within 2-12 hours after delivery (28%, 58/207). Factors which positively influenced giving breast milk as the first feed include maternal high level of education (p=0.018), delivery in government health facilities (p=0.00) and having vaginal delivery (p=0.008).
Conclusion: Prelacteal feeding practice is not common among mothers attending the immunization clinic in UPTH.
ABSTRACTS 20

Help at your doorstep: Saving the lives of newborns with complication in core rural areas Through Community Transport System in North-Eastern Nigeria

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Background
High neonatal mortality rate in the North-East region of Nigeria has largely been attributed to delay in accessing health care services by New Mothers. ETS stands for Emergency Transport Scheme; it aims at making a contribution to saving the lives of pregnant women when in labour or newborns with complication.

Objectives
To show that having efficient Emergency Transport System can save the lives of newborn in core rural areas.

Subjects and Method:
Commercial taxi drivers that reside in the various communities spread across Gombe State were recruited and trained as volunteers on ease and safe transport of distressed mothers and newborns to nearest designated Health centres during emergency.

Data of newborns with complication transported during emergency was collected from the volunteer drivers (MIS) booklets of the number of newborns transported during emergency monthly for a period of 12 months (Aug 2013 – Aug 2014).

Results
A total of 306 Newborns had been transported by ETS volunteers from the core rural communities of Gombe state to nearest facilities.

Conclusion
ETS can significantly improved the newborn survival especially those that are in the core rural areas by contributing to access to health services to pregnant women.
ABSTRACT 21
Title: ‘Stillbirth Rate’ After Helping Babies Breathe Training in Bauchi State, Nigeria.

Authors: Ibrahim Kabo, Emmanuel Otolorin, Nosa Orobaton, Dele Abegunde, Masduk Abdulkarim

Key words: Stillbirth Rate, Helping Babies Breathe, Training, Bauchi, Nigeria

Background
Early neonatal mortality and stillbirth rates have remained high for many years in Nigeria, and especially in Bauchi state, Northeast Nigeria. Anecdotal evidence has shown that oftentimes early neonatal deaths are classified by health care workers as stillbirths. Helping Babies Breathe (HBB), a novel educational program using basic interventions to enhance delivery room stabilization/resuscitation, has been developed to reduce the number of these deaths.

Objective:
This study evaluated the effectiveness of Helping Babies Breathe (HBB) newborn care and resuscitation training for birth attendants in reducing ‘stillbirth rates’.

Methods:
This prospective study included training of 11 master trainers and 323 service providers from secondary and primary health facilities on Helping Babies Breathe (HBB). Pre-post written trainee knowledge, post-training provider performance and skills after HBB training were assessed. The primary outcome was a reduction of fresh stillbirth (FSB) rate in project supported facilities.

Results:
Provider knowledge and performance systematically improved with HBB training. Reported stillbirth rates reduced from 115/1000 to 62/1000 deliveries.

Conclusion:
HBB training was associated with a reduction in reported stillbirth rate. HBB uses a basic intervention approach readily applicable at all deliveries. Scaling up HBB and monitoring is recommended.
THE ROLES OF TRADITIONAL BIRTH ATTENDANTS IN INCREASING NEWBORN SURVIVAL IN GOMBE STATE, NIGERIA

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Background: Neonatal deaths account for an increasing proportion of child deaths. In Gombe, vast majority of newborn deaths takes place in rural areas where access to health care and health seeking behavior is low. Newborn survival, among other factors, is first dependent on recognizing the importance of care during pregnancy.

Objectives: To investigate the impact made by TBAs towards increasing newborn survival.

Subject and Methods: TBAs were trained to identify danger signs in pregnancy and neonates through quality home based visits and care, referral and accompanying clients to health facility for skilled care and documenting data into MIS forms. MIS data are extracted, analyzed and inputted into a District Health Information System. This article reviews data from June 2013 to May 2014.

Results: 37% of newborns practice Kangaroo Mother Care. There is an overall 10% increase in the number of women who practice clean cord care and 4% decrease in resuscitated newborns. Delayed bathing increased from 10% to 22 % and facility records showed 24% difference in neonatal complications.

Conclusion: TBAs in Gombe have played important roles in increasing chances of newborn survival through home visits, enhanced interaction, mentoring and referral to health facilities.
ABSTRACTS 23

Use of a Competency-Based Training (CBT) Approach as a Programmatic Model to Improve the Quality of Pre-Service Education (PSE) of Health Workers in Sokoto and Bauchi States of Northern Nigeria: A Strategy for Improving Newborn Survival

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Background
The shortage of healthworkers has been associated with the high neonatal mortality rate (38/1000 livebirths) in Nigeria (NDHS-2013). This is worsened by the limited competencies of existing staff. This paper describes a model used to improve the quality of PSE of health workers in Sokoto and Bauchi States, where competency-based training methods were introduced to 100% of nurse/midwife tutors.

Method
A pre-posttest study design was used in 3-stages. Pre-intervention, 65-performance-standards were developed in 4-thematic areas to track performance of PSE institutions based on standards: classrooms/practical instruction, clinical-practice-sites, infrastructures and management. A standard was achieved if all the related criteria were fulfilled. At baseline, 10 PSE institutions (nursing/midwifery, community health and medical school) were assessed and gaps identified. Interventions were developed and implemented. These included capacity-building for all faculty (including competencies on Neonatal Resuscitation/Care of Newborn using Helping Babies Breathe Technique), installations of teaching-aids and an electronic-library; and renovation of infrastructures. Follow-up assessments were conducted twice. Data were collated and analyzed. Statistical tests were conducted using paired-t-test.

Findings
At baseline, the mean score for all the PSE institutions in compliance to set-performance-standards was 38.6%. Post-interventions, the mean follow-up assessments scores were 60.83% and 95.45% respectively. Paired-t-test conducted showed that the differences in scores at follow up relative to baseline were statistically significant at p values of p<0.001.

Conclusion
A CBT-approach is an effective model for improving the quality of PSE training of health workers as well as a strategy for improving their newborn care competencies and is recommended for replication at scale.
ABSTRACTS 24

The impact of mobile technology on newborn survival: Exploring outcomes and effectiveness of health seeking behavior in Gombe, Nigeria.

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Background: With over six billion mobile phone subscriptions spread across the world, mobile technologies are rapidly penetrating even the most remote corners of the world. The emergence of mobile technology has generated new innovations for facilitating and delivering MNH and other health services to the hard to reach and vulnerable populations.

Objective: To identify specific contributions of utilizing mobile phones and call centre to improve neonatal health outcomes in Gombe state, Nigeria.

Subject/Methods: 12 toll free lines from 4 Nigerian network providers were connected and configured to a gateway and routed to call agents. Each call is captured and inputted into a database system. All the calls are aggregated and analysed based on callers location and health needs. Analyzed data from 1st May 2013 to 30th June 2014 were used for this article.

Results: There is an improved health seeking behavior among people in Gombe State as 72% of calls came from Gombe and 36% of all the calls were referred for skilled services. 2,644 women with pregnancy complications and 540 newborns were given first aid advice and referred where appropriate.

Conclusions: The result shows that Call Centre is a viable tool for delivering relevant health information and a referral tool for MNH improvement.
ABSTRACTS 25

Title: A National Verbal/Social Autopsy Study to Improve Estimates of the Causes and Determinants of Neonatal and Child Mortality in Nigeria

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Background: The WHO/UNICEF-supported Child Health Epidemiology Reference Group (CHERG) has conducted verbal/social autopsy (VASA) studies of neonatal and child deaths in Niger, Cameroon and Malawi, and is working with the National Population Commission, the Ministry of Health and other partners to conduct a national VASA study in Nigeria.

Objectives: VASA studies directly measure the causes and determinants of neonatal and child mortality to improve global, regional and country estimates. The objectives are to estimate the cause distributions of neonatal and child deaths and the prevalence of social determinants of the deaths. Health policy makers and programmers will use the data to identify health priorities and develop effective strategies for the delivery of essential child survival interventions.

Subjects and Methods: Return visits will be made to the households of a random sample of 984 neonatal and 2270 child deaths identified by the 2013 Nigeria DHS to conduct a VASA interview. The preferred respondents are the child’s caregiver during the illness, which is usually the child’s mother.

Results: NPC, the MOH and CHERG will conduct the initial data analysis and interpretation, then share this with a working group of Nigerian and international health specialists for their interpretation and recommendations. National dissemination to additional stakeholders will follow to further develop the next steps for public health action.

Conclusion: The VASA study findings will contribute to improved global, regional and national estimates of the causes and determinants of neonatal and child mortality, and to the development of improved maternal and child health policies and programs in Nigeria.
Title: Harnessing the potential of formally trained Community Health Extension Workers in improving newborn survival: evidence for ensuring policy implementation in Nigeria.

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Background: Community Health Extension Workers (CHEWs) are supposed to spend 80% of their time in the communities practicing community based health care including home visit. Over the years, this role has been neglected.

Objectives: The current research evaluated the potential role of CHEWs in the implementation of community based newborn care package (CBNC) and the impact on newborn survival in Nigeria.

Methods: A pre intervention pilot survey was conducted prior to a longitudinal cohort study using CHEWs to implement CBNC package in a programmatic setting in two Local Government Areas of Oyo State, Nigeria between 2011 and 2013. The CHEWs were trained on CBNC package and young IMCI module. Each CHEW covered a population of 4-5,000 people doing pregnancy and birth surveillance, two home visits in pregnancy, post natal visit on days 0, 3, 7 and weekly until day 60, referral of babies with danger signs and treatment of possible serious bacterial infection (PSBI) when referral was not possible.

Results: Pre intervention, about 3% of mothers had pre natal and post natal home visits with a neonatal mortality rate (NMR) of 20/1000. All newborns with danger signs were referred to secondary or tertiary centres with 60% refusal of referral. In the current study, a total of 20,939 pregnant mothers and 20,512 newborns were followed up over the study period. Mothers that had at least one visit in pregnancy were 15,249 while 16,406 newborns had at least half of the scheduled visit. Babies with danger signs were 1901 out of which 656 accepted referral, 1245 refused referral and 952 were treated for PSBI and NMR of 9.7/1000.

Conclusions: Enforcing the community health responsibilities of CHEWs in Nigeria will improve newborn survival.
Abstract Title: Strengthening Community-Based Supply Chains Improves Access to Life-Saving Commodities

Background: According to the 2013 National Demographic and Health Survey, less than 40 percent of all deliveries in Nigeria occur in a health facility. Lack of access to basic lifesaving commodities is a key challenge in the effort to meet Millennium Development Goals 4 and 5 by 2015. The Government of Nigeria and other partners are shifting the focus from health facility to community-based care through community-based distribution (CBD) and Integrated Community Case Management.

Objectives:

- Improve access to lifesaving medicines through community-based distribution
- Design a well-functioning logistics system for CBD

Subjects and Methods: The USAID _DELIVER PROJECT, Task Order 4, designed and implemented a CBD model for delivering misoprostol and chlorhexidine to women in labor in Sokoto State. Project staff advocated with community leaders to obtain buy-in and identify stakeholders and champions. In collaboration with community stakeholders, the project designed a logistics system to ensure availability of misoprostol and chlorhexidine through CBD trained community-selected drug keepers in how to dispense commodities and keep proper logistics records ensured that logistics data capture tools (logistics management information tools) were used for routine ordering and reporting established routine review meetings to collect data from the drug keepers, resupply commodities, and provide on-the-job training, support, and mentorship.

Results: Over 12,000 treatment courses of misoprostol and chlorhexidine have been administered to women in Sokoto State.

Conclusion: Strengthening supply chains is essential for improving access to lifesaving commodities at the community level.
The Critical Roles of Ward Development Committees in Improving Program Reach for Newborn Health Care in Bauchi State, Nigeria
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Background
Bauchi State Government adopted the National Policy on Ward Minimum Health Care Package to increase access to and utilization of basic maternal, newborn and child health (MNCH) services. Ward Development Committees have governance role in directing MNCH at grassroots. Less than 33% of Bauchi State’s 323 were in operation in 2011.

Objectives
To describe the process and progress in the revival of WDC operations throughout Bauchi State to increase community access to MNCH services.

Methodology
Guided by baseline information, a set of interventions implemented to revive WDCs per national standards included strengthening of already functioning ones, and reactivation of non-functional or the formation of non-existing WDCs. Skills introduced to WDC members included community action cycle planning, advocacy, resource mobilization, documentation, leadership and management. WDCs learned to form linkages with relevant stakeholders such as the LGA PHC Department, LGA Social Mobilization Committees, and partners at LGA level.

Results
Functional WDCs increased from 103 (31.8%) in 2011 to 323 (100%). WDCs manage 3230 Community-Based volunteers who counsel households on health and distributed Chlorhexidine 4% gel to 50,210 newborns between January and August 2014. A total of 128 community drug revolving funds and 224 community emergency transport systems were established and are functional.

Conclusion
Bauchi State’s experiences with WDCs affirm the crucial importance of the Ward Minimum Package to advance MNCH in Nigeria. Other states are encouraged to understudy Bauchi State.
ABSTRACTS 29
Title: The At-Scale Rollout of Chlorhexidine 4% Gel in Sokoto State from April to December 2013: Some Early Findings

Background
The Government of Sokoto State is the first in Nigeria and Africa to self-finance the procurement and distribution of chlorhexidine 4% gel for newborn cord care. This program commenced in April 2013.

Objectives
To present some early findings associated with nine months distribution of chlorhexidine 4% gel (CHX) in tandem with misoprostol tablets.

Subject and Methods
A network of 2440 Community-based Health Volunteers and 1000 community drug keepers worked through 244 Ward Development Committees (WDC) and focal ward facilities, distributed CHX on demand where labour was reported. Each newborn-mother dyad was tracked for 28 days and 42 days respectively. Survival outcome data were recorded by CBHVs and facility-based health workers. Bivariate analysis was done using STATA statistical package.

Results
A total of 36,404 newborns received CHX, April-December in all 23 LGAs. A statewide coverage of 26.3% of the expected births during that period was achieved. The coverage at LGA levels ranged from 17% to 50%. A total of 36,280 (99.6%) newborns survived the neonatal period. Of the total 99 neonatal deaths recorded, 77% died around birth.

Conclusion
CHX distribution was associated with high newborn survival past the neonatal period. Community distribution was essential for this outcome. There is need to strengthen the logistics and distribution of these commodities linked to community distribution.
Cultivating Community trust in the distribution of life saving commodities in Sokoto, Northwest Nigeria- Lessons for health systems managers

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Background: Lack of community trust has emerged as one of the problems militating against the success of health programs in northern Nigeria resulting in failure to achieve set goals. Sokoto State Government through the Ministry of Local Government (MOLG) introduced two life-saving commodities, misoprostol (Miso) and chlorhexidine 4% gel (CHX) for distribution in the communities for home births. Over 94% of births occurred at home in 2013. CHX and Miso is to reduce the incidence of postpartum hemorrhage and newborn sepsis from cord infection.

Methodology: The Ministry of Local Government held consultative meetings with Local Government (LG) Directors of Primary Health, with 244 Ward Development Committees (WDC) chairmen, community leaders, and Islamic scholars to gain religious perspective and guidance. Town hall meetings, TV and Radio call-in programs to particularly engage men who strongly influence household decisions. CHX and Miso directly delivered to each 244 WDC by MOLG with government cellphone contact information affixed.

Results: After 3 meetings with the LG Directors of health, 3 meetings with WDCs, 3 town hall meetings in each LGA with village heads, religious leaders and CSOs; CHX and Miso were accepted by all for use at home birth. No incidents of rejection were recorded. Demand for the commodities shut up from zero to over 50,000 women who used Miso for prevention of PPH, over 50,000 newborns had cord protected with CHX.

Conclusion: Community trust is essential for health programs’ success as shown in the Sokoto distribution of the CHX and Miso and to maximize program efficacy.
ABSTRACTS 31
RISK FACTORS AND AETIOLOGY OF EARLY ONSET NEONATAL SEPTICAEMIA AT THE UNIVERSITY COLLEGE HOSPITAL, IBADAN.
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Background
Neonatal septicaemia, a major cause of neonatal mortality in Nigeria requires prompt and effective treatment based on knowledge of risk factors and prevailing organismsto prevent fatality.

Objectives
To determine the predictive risk factors and bacterial aetiology of early onset neonatal septicaemia (EOS) at the University College Hospital, Ibadan.

Subjects and methods
Two hundred and two neonates with risk factors for or clinical features of EOSdelivered or admitted at the University College Hospital, Ibadan had details of pregnancy, peripartal history and clinical features recorded and all had blood samples taken for culture and sensitivity before antibiotic therapy.

Results
The prevalence of EOS was 8.8/1000 live births. The predictive maternal risk factors for EOS were vaginal discharge (OR =7.609, CI=1.022-56.650), positive maternal urine culture (OR=8.375, CI=5.754-12.191) and >6 digital vaginal examinations (OR=5.009, CI=2.038-12.312). The clinical features most predictive of EOS were fever (OR= 2.629, CI=1.120-6.172) and respiratory distress (OR=3.435,CI=1.131-10.431).
Staphylococcus aureus was the most commonisolate (52%) with 23%of them being MRSA. Escherichia coli was the only Gram negative among inborn and Klebsiella pneumoniae the most common Gram negative among out-born neonates. MSSA demonstrated 80% susceptibility to ampicillin sulbactam and 91.9% to gentamycin, Escherichia coli was 100% susceptible to gentamycin while Klebsiella pneumoniae had 82% susceptibility to gentamycin and 66.7% to ampicillin sulbactam. MRSA demonstrated 25%, 38.5% and 66.7% susceptibility to ampicillin sulbactam, gentamycin and vancomycin respectively.

Conclusion
Neonates born to mothers with multiple vaginal examinations, vaginal discharge and positive urine culture should have investigations and empiric treatment for septicaemia while the use gentamycin and ampicillin sulbactam as empirical first line antibiotics for EOS is judicious.
ABSTRACTS 32
Experience with Clean births and Newborn Kit in Nigeria
Chinomnso O Peter

Background
Nigeria records about 2300 deaths of fewer than five children daily in Nigeria. About forty percent are newborns. The causes of death include infection acquired during delivery. To prevent infection during delivery, Traffina Foundation in Nigeria designed and produces ‘Clean births and Newborn Kit’ as an approach to improve the quality of deliveries and reduce newborn infection. The kit contains 13 items both for the mother and the newborn including Chlorhexidine.

Objectives
To share the experience and results of using the kit in Nigeria.

Subjects and Methods
The kit has been introduced in Federal Capital Territory, Kebbi and Niger states. The kits are given to Public Primary Health Care Facilities where mothers deliver. These kits are donated by the TF and free for mothers who deliver at the health facilities. Each month the foundation receives reports related to the use of the ‘Clean births and Newborn Kit’. This report is based on the analysis of the monthly reports.

Results
The kits were well received in the three states by mothers and health workers. Previously the health facilities lacked consumables for delivery. Very few mothers were not willing to deliver at the health facilities due to the cost of consumables when available. Introduction of the kit at the health facilities increased health facility deliveries, immunizations and reduced infection in the newborn.

Conclusion
The use of the kit should be expanded as a tool to reduce newborn infection.
ABSTRACTS 33

National Neonatal Resuscitation Training Programme in Nigeria (2008-2012): A Preliminary Report. Authors: Elizabeth A Disu, 1 Isaac C Ferguson, 2 Fidelis O Njokanma, 1 Laraba A Anga, 1 Adaobi U Solarin, 1 Adenike O Olutekunbi, 1 Ekanem N Ekure, 3 Chinyere V Ezeaka, 3 Dorothy O Esangbedo, 4 Tinuade A Ogunlesi 5

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ABSTRACTS 34

National RMNCH Landscape Analysis for Prioritized Life-Saving Commodities.
Nkem E. Nurse-Findlay S and Mbewe A

Background
A Country Implementation Plan for the UN Commission on Life-Saving Commodities (UNCoLSC) for Women and Children was submitted to the Reproductive Maternal Newborn and Child Health Trust Fund (RMNCH TF) of the in August 2013. It aims to coordinate and maximize available resources towards improving and ensuring the sustainable supply of high quality life-saving commodities where they are most needed. Based on this plan, Nigeria, through WHO received a US$7.09 million catalytic grant to ensure the availability and use of the priority life-saving commodities for women and children on behalf of the Government of Nigeria. The completion of an RMNCH Landscape Synthesis was a required condition of this grant.

Objectives
The objectives of the RMNCH Landscape Analysis were to determine the latest RMNCH epidemiology, service availability and utilization, as well as specific policies and plans related to 13 life-saving commodities and related RMNCH services.

Method
The landscape analysis was based on a review of records, Key Informant Interviews of Ministry of Health and its agencies(National & States), development partners, and by direct observation at health facility sites.

Results
Results of the analysis provides current information on RMNCH commodities, available policies, human resource guidelines, regulation, procurement, supply chain, quantification, indicators and targets. All as they relate to the Life Saving Commodities.

Conclusions
There is need to have performance targets, indicators to monitor 13 commodities, dedicated financing structures and encourage local manufacturing of commodities.
ABSTRACTS 35

Progress towards Market Shaping and Commodity Security for Chlorhexidine 4% Gel for Umbilical Cord Care in Nigeria.
Olayinka A. Umar-Farouk, Nosakhare Orobaton, Nomtai Kaduno-Takura, Kamil Shoretire, Francis Ohanyido, Ladu Mari
United States Agency for International Development, John Snow Inc. Research and Training Institute, Targeted States High Impact Project Nigeria

BACKGROUND
Neonatal sepsis aggravated by unhygienic umbilical cord care, is one of the 3 leading causes of neonatal deaths and accounts for 22% of total neonatal deaths in Nigeria. In Nigeria the use of 4% chlorhexidine (CHX) gel for cord care has been introduced at scale in Sokoto and Bauchi states and over 130,000 newborns have utilized it.

OBJECTIVE
1. To create effective market signals to increase the demand for CHX.
2. To the leverage the buyer power of 36 state governments to bulk purchase CHX and stimulate demand.

METHODOLOGY
1. Study tours organized for delegations for 36 state governments to visit Sokoto State to understudy the community distribution of CHX.
2. Quarterly networking meetings of government, prospective CHX manufacturers and donor agencies.

RESULT
Of the 36 states in the country, delegations from 25 states plus FCT visited the Sokoto study tour representing 129 million Nigerians. 10 state governments have firmed-up committed to CHX programme; 6 state governments procured CHX while 3 states Sokoto, Bauchi and Kano have, commenced use.

10 pharmaceutical firms submitted expressions of interest to manufacture CHX, six of which were inspected by NAFDAC/USP. Three firms were earmarked as potential producers and one (Drugfield Pharmaceuticals) received full registration in March 2014 to commence production. This has brought production capacity from zero in 2013 to 20 million tubes per annum in 2014.

CONCLUSION
This total market approach using WHO Medicines strategy as a guideline has increased the security of domestic supply of CHX which will save newborn lives in Nigeria.
ABSTRACTS 36
A Nigerian Islamic Relief Organization Helps to Spread Community Acceptance of Misoprostol (Miso) and Chlorhexidine 4% gel in Sokoto State, Northern Nigeria: A case study.
Authors: Lead (Presenter) Alhaji Sanni Umar Jabbi, Chief of Gagi, Sokoto, Shoretire KA, Ojile B., Maishanu AM, Orobaton N.

The use of miso and chlorhexidine 4% gel, low cost, high impact interventions are effective in the prevention of post-partum hemorrhage and newborn sepsis respectively. In religiously conservative Sokoto State, the support of Islamic and community leaders, is essential for program success.

Methodology: Jama’atu Nasrillslam, JNI (Society for the Victory of Islam), a respected Islamic relief organization decided to promote Miso to other Islamic and political leaders in Sokoto state. The state JNI embarked on a statewide campaign to promote Miso and then CHX (when it became available), use during home deliveries. Settlement heads, ward heads, local council heads and Local Government Chairmen were contacted through several village meetings and town-hall discussions and conversations after Muslim prayers, at wedding fatihas and at baby naming ceremonies.

Results: The number of wards demanding Misoprostol for home deliveries rose from 3 in (April 2012) to 78 in (July 2012). The 78 wards comprise 1.5 million people with an estimated 75,000 pregnancies per annum. Twenty of the 78 wards had invested own funds to start a controlled, community-based misoprostol-only distribution program. That work aided the effort by the government to distribute miso twinned with chlorhexidine 4% gel, and this extended coverage to all 244 wards within three months (April 2013) of roll out for nearly 5 million population, as part of it free care program.

Conclusion: Community and Islamic religious leaders, using medical evidence that is visible to communities, can be effective champions in promoting Miso and CHX acceptability and possibly other interventions in Northern Nigeria.
SCIENTIFIC COMMITTEE MEMBERS

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2. Dr Mukhtar Yola – PAN rep, National Hospital Abuja - member, scientific committee
3. Dr E.K Olateju – NISONNM rep, UATH Gwagwalada - member, scientific committee
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