

5<sup>th</sup> World Congress on

# **Public Health, Nutrition & Epidemiology**

July 23-24, 2018 Melbourne, Australia

# Scientific Tracks & Abstracts Day 1

## 5th World Congress on

# PUBLIC HEALTH, NUTRITION & EPIDEMIOLOGY

July 23-24, 2018 Melbourne, Australia

## Exploring the patient journey in weight loss: A social network analysis

**Lynn Cheong and Nicole Freene** University of Canberra, Australia

Statement of the Problem: The rising prevalence and burden of obesity represents an important global health issue. Despite effective dietary and lifestyle interventions, few succeed with long-term maintenance of weight loss. Whilst interventions have been developed to serve the best interest of overweight and obese individuals, none have analyzed the social relationships that individuals may develop or require as they attempt to lose weight over time. There is a need to address the interplay between weight management and social networks. Using a novel approach, this project aims to explore the networks of overweight and obese individuals over time, by identifying the people with whom they interact with in their weight loss attempt, to better understand the influences of social interactions on weight loss behavior and outcomes.

Methodology & Theoretical Orientation: Social Network Analysis (SNA) is an approach that allows the detailed study of complex communication and interaction patterns. It is based on the theoretical framework of social network theory. This project employed a longitudinal mixed-methods approach to SNA. Participants were recruited through advertisements in various healthcare settings. Data were collected at four points over a 12-month period through surveys and a semi-structured interview at completion. The network software, E-Net, was used to generate visual representations of individual's networks, while qualitative analysis of data assisted in the interpretation of network structures, providing an insider's view.

**Findings:** A total of 17 individuals were recruited. Participants reported small weight loss networks (median 3, range 1-7) which predominantly included family, friends and coworkers.

Conclusion & Significance: Participants indicated that the most influential weight loss connection was their spouse. Despite their reported desire to lose weight, minimal changes was observed in existing networks even with a lack of weight loss over time. This research highlights the need for future interventions to consider with whom individuals are willing to engage in their weight loss journey.

#### **Biography**

Lynn Cheong is a Clinical Assistant Professor of Pharmacy at the University of Canberra in Australia. She is a Registered Pharmacist with a wide array of experience in hospital and community pharmacy, as well as government and education. She continues to remain professionally active and strives to advance the role of pharmacists in improving patient and health system outcomes. Her research interest is in the application of social network analysis theories and techniques in health service research. Her research lies in the areas of patient-centered care, quality use of medicines, interprofessional education and practice.

Lynn.Cheong@canberra.edu.au

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# PUBLIC HEALTH, NUTRITION & EPIDEMIOLOGY

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# Community based interventions reduced the maternal anemia and hence reduced the low birth weight incidence

**Muhammad Sarwat Mirza and Zulfiqar Ali Sario** Health and Nutrition Development Society, Pakistan

n Pakistan, 32% of all babies born have low birth weight which is a major contributor to new born and infant mortality and stunting of 44% of children <5 years of age. We conducted first prospective community-based study in Pakistan that has researched the effect of Multiple Micro-Nutrient (MMN) along with a set of composite community-based interventions on prevalence of anemia among pregnant women and incidence of low weight births in the remotest and highly food insecure regions. The hypothesis postulated that the proper counseling and guidance at community level about nutrition, dietary intake of proper local foods and micro-nutrient supplements (including the iron-folate) may improve the nutrition status of pregnant women and hemoglobin level through improved dietary practices and ensures the regular intake of micro-nutrients. All these impacts to improve in birth weight of the newborn child. Study participants were 1,204 pregnant women (600 in intervention and 604 in control group). The interventions were nutrition counseling, provision of multiple micro-nutrient and de-worming tablets, regular follow up, measurement of weight, hemoglobin in each trimester of each enrolled pregnant women. In the intervention group 69.1% women modified their diet. Significantly higher proportion of women increased the number of meals and content. 98.7% pregnant women reported regular intake of multiple micronutrient. The change in mean hemoglobin levels in the intervention area was 2 gm/dl, which is significantly higher. The low birth weight among the intervention group women was 3.8%, significantly lower than the national figure of 32%. Analysis showed that per unit (kilogram) increase in weight since the enrollment higher Hb in last trimester, a higher gain in Hemoglobin and BMI levels reduced the risk of low weight birth by 0.90 times. Our study successfully demonstrated that in rural remote areas where the food insecurity already prevailed, community-based provision and improving intake of multiple micro-nutrient to pregnant women, de-worming, dietary counseling, significantly reduced the prevalence of anemia and resultantly reduced the incidence of low birth weight.

#### **Biography**

Muhammad Sarwat Mirza has wide experience in the field of program/project designing and development, program management, monitoring, evaluation and research especially related to reproductive health, nutrition and family planning, working with Health and Nutrition Development Society for last 22 years. He has obtained his MBBS and Master's in Public Health and had served at Department of Pediatrics, The Aga Khan University Hospital, Pakistan. He had experience of developing behavior change communication material for promotion of breast feeding, dietary habits of pregnant and lactating women, nutrition for children and adolescents among the rural communities. Recently, he has concluded two operation research projects with multiple partners and donors on nutrition and reproductive health issues of pregnant women to improve the birth outcome and reduce the low birth weight incidence and rapid assessment of drought-stricken area in Pakistan. He has worked on several clinical research projects such as dietary management of diarrhea, control trial of local food, zinc supplementation in malnourished children. He is presently serving as Research Advisor for community health initiatives related to food, nutrition and research to Allama lqbal Open University, Pakistan for post graduate medical students.

Sarwat.mirza@hands.org.pk

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# PUBLIC HEALTH, NUTRITION & EPIDEMIOLOGY

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#### Influences of environmental factors on human health

Amir Elahi Johri Ministry of Health-Oman, Oman

World Health Organization estimates that 23% of all deaths worldwide and 22% of all DALYs are attributable to the environmental factors. From conception to adulthood and later ages, we all are exposed to environmental influences that effect our health. Environmental risks like water and air quality, food and chemicals safety, waste disposal and built environment can lead to various detrimental health effects. It is now widely recognized that public health challenges and environmental sustainability are interlinked, therefore these should be addressed jointly. In recent years, the environmental scientists have focused on the implications on human health by the built environment, e.g. food outlets, road designs, transportation systems, housing, parks etc. It has been documented that living in low socioeconomic neighborhood has been linked to higher rates of injuries and accidents. At present, the public health community is concerned with rapid environmental change leading to detrimental health effects on human population, therefore they are tasked with integration of public health and environmental sustainability as common course for partnerships, alliances in policy developments. Eventually, reducing environmental exposures would greatly reduce the global burden of disease.

#### **Biography**

Amir Elahi. Johri is a public health physician and has extensive experience in environmental/public health. He has worked for many international and national organizations around the world. His expertise include; environmental health in emergencies, environmental and occupational health policies and strategies, environmental health risk assessment, migrants & refugees health, etc. Johri has worked for World Health Organization (WHO) at the national and international level. He was also engaged with International Organization for Migration (IOM) with Syrian refugees in Jordan. Currently he is the advisor at the Department of Environmental and Occupational Health, Ministry of Health – Oman. Johri has presented several papers at different international forums. He is actively involved developing national environmental health & occupational policies, strategies and actions plans, as well as training and teaching of environmental and occupational health disciplines.

dramirjohri@gmail.com

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# PUBLIC HEALTH, NUTRITION & EPIDEMIOLOGY

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## Pneumonia in severely malnourished children: Etiology, diagnosis, management and future direction

Mohammod Jobayer Chisti, Abu SM Sayeem, K M Shahunja and Tahmeed Ahmed International Centre for Diarrhoeal Disease Research, Bangladesh

**Statement of the Problem:** Management of pneumonia in severely malnourished children is critically important in reducing deaths in such children. Understand the etiology of pneumonia in severely malnourished children is one of the essential components of appropriate management. Diagnosis of pneumonia in children with severe malnutrition is also intriguing. Etiology and diagnosis of pneumonia in SAM is not well described in medical literature. Data on management of pneumonia in such children are also lack.

**Methodology & Theoretical Orientation:** We have done a systematic review using specific search criteria in PUBMED to evaluate the overall role of severe malnutrition in children with pneumonia in SAM children.

Result: Among a total of 215 isolates, 26% were *Klebsiella* and 25% *Staphylococcus aureus* species; 18% *Pneumococcus*; 8% each *Escherichia coli* and *Salmonella* species. A recent study conducted in Bangladesh found 87/385 (23%) MTB as the bacterial etiology of pneumonia in SAM children. In SAM children, the sensitivity of fast breathing as a predictor of radio graphically proven pneumonia ranged from 14% to 76% and specificity from 66% to 100%. Surprisingly, metabolic acidosis found to have no impact on the diagnostic clinical features of pneumonia in SAM children having diarrhea. Studies revealed that as a first line therapy ampicillin and gentamicin are more effective against enteric Gram-negative bacilli than chloramphenicol in SAM children with pneumonia. Both the groups received in addition to diet, micronutrients, vitamins and minerals.

**Conclusions & Significance:** Currently, available data suggests that the spectrum and frequency of causative agents of pneumonia in severely malnourished children differ from that observed in well-nourished children. Clinical signs are relatively poor predictors of pneumonia in severely malnourished children. However, injectable antibiotics in addition to diet, micronutrients, vitamins and minerals are the *sine qua non*. High prevalence of pulmonary tuberculosis in severely malnourished children having acute pneumonia underscores the importance of further research that may help to evaluate determinates of TB in such children.

#### **Biography**

1998 as a Clinician as well as Research	i, Bangladesh since i	Research,	Diarrnoeai Disease	Centre for	working in international	Chisti has been	wonammod Jobay
chisti@icddrb.							

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# PUBLIC HEALTH, NUTRITION & EPIDEMIOLOGY

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## Risk factors for bacteremia in severely malnourished pneumonic children and their outcome

Abu Sadat Mohammad Sayeem Bin Shahid, Tahmeed Ahmed, K M Shahunja and Mohammod Jobayer Chisti International Centre for Diarrhoeal Disease Research, Bangladesh

**Statement of the Problem:** Bacteremia is quite common in Severe Acute Malnourished (SAM) children with pneumonia, who often experience a fatal outcome, especially in developing countries. There is limited information in the medical literature on the risks of bacteremia in SAM children with pneumonia. We have examined the factors associated with bacteremia and their outcome in under-five children who were hospitalized for the management of pneumonia and SAM.

**Methodology & Theoretical Orientation:** In this unmatched case-control study, SAM children of either sex, aged 0-59 months, admitted to the Dhaka Hospital of the International Centre for Diarrheal Disease Research, Bangladesh (ICDDR, B) with cough or respiratory distress and radiological pneumonia during April 2011 to July 2012 were enrolled (n=405). Those with pneumonia as well as bacteremia constituted the cases (n=18) and randomly selected SAM children with pneumonia without bacteremia constituted controls (n=54).

**Findings:** A wide range of bacterial pathogens were isolated among the cases of which 13 (72%) were gram negatives. Death rate was higher among the cases than the controls (28% *vs.* 9%) but the difference was not statistically significant (p=0.111). In logistic regression analysis, after adjusting for potential confounders, such as the lack of DPT/oral polio/HIV/hepatitis vaccination, measles vaccination, vomiting and clinical dehydration (some/severe) the SAM children with pneumonia as well as bacteremia more often had the history of lack of BCG vaccination (95% CI=1.17-29.98) and had diastolic hypotension (<50 mm of Hg) (95% CI=1.01-12.86) not only after correction of dehydration but also in its absence.

**Conclusion & Significance:** The results of our study suggested that history of lack of BCG vaccination and presence of diastolic hypotension in absence of dehydration on admission are the independent predictors of bacteremia in SAM children with pneumonia. The results indicated the importance of continuation of BCG vaccination is to produce benefits beyond the primary benefits.

#### **Biography**

Abu Sadat Mohammad Sayeem Bin Shahid has his experience in public health especially in nutrition and other emerging problems like childhood TB and pneumonia in developing world. He has been involved in different epidemiological research starting from observational study to clinical trial for the last 8 years. He also published his different work in different journals.

sayeem@icddrb.org

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# PUBLIC HEALTH, NUTRITION & EPIDEMIOLOGY

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## University students caffeine consumption and stress: Effects on sleep quality and daytime functioning

Frances O'Callaghan and Kyle Wyatt

Griffith University, Australia

**Statement of the Problem:** Poor sleep quality and excessive daytime sleepiness are positively associated with common mental disorders such as depression, anxiety and somatoform disorders, as well as lapses in concentration and daytime tiredness. These relationships are complicated among university students who have high caffeine consumption and high stress, both of which affect sleep quality.

**Methodology & Theoretical Orientation:** This was a quantitative study involving 175 full-time university students from 17 to 25 years (mean=19.43, SD=2.06). Students completed an online questionnaire about their sleep quality, daytime functioning, caffeine consumption and recent level of stress symptomatology.

**Findings:** Poor quality sleep was associated with diminished daytime functioning. Increased caffeine consumption influenced daytime functioning by lowering the quality of an individual's sleep. However, the relationship between quantity of caffeine consumption and sleep was dependent on the time of day the caffeinated beverages were consumed. Increased stress was related to both reduced sleep quality and reduced daytime functioning.

**Conclusion:** The findings highlight the implications for daytime functioning of university students not getting sufficient quality sleep and the role of lifestyle factors pertaining to caffeine use and stress.

#### **Biography**

Frances O'Callaghan is a Health Psychologist in the School of Applied Psychology, Griffith University, Australia. Her research focuses on psychosocial influences on health and illness, sleep disorders and fetal alcohol spectrum disorders.

f.ocallaghan@griffith.edu.au

Shuai Shao, J Community Med Health Educ 2018, Volume 8 DOI: 10.4172/2161-0711-C3-038

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# PUBLIC HEALTH, NUTRITION & EPIDEMIOLOGY

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Information and communication technology capacity of mHealth implementation for cardiovascular management in limited-resource settings in China, Vietnam and Kenya -A study from both patient and facility perspective

Shuai Shao

University of Melbourne, Australia

**Statement of the Problem:** m-Health is increasingly becoming a promising solution to cardiovascular management around the world. Information and Communication Technology (ICT) play key roles for such intervention to succeed for improved health outcomes, however, the underlying infrastructure required for m-health implementation has not been adequately assessed, especially in limited-resource settings.

**Objective:** To evaluate the capacity of ICT in cardiovascular management in limited-resource Primary Healthcare Centers (PHCs) in China, Vietnam and Kenya, from both patients' and PHC providers' perspectives.

Methodology & Theoretical Orientation: Cross-sectional surveys were conducted in Kunshan City and Nanhe County in China, Chi Linh District in Vietnam and Nairobi City and Machakos County in Kenya. Our study included a total of 46 PHCs in limited-resource settings and 305 patients who utilized cardiovascular-related services at those PHCs.

**Findings:** We found that mobile phone ownership was highly prevalent among the sampled patients as on average 85% of sampled patients possessed a mobile phone. Patients in Kenya sent or received 3.84 text messages daily on average whereas the number was 1.4 and 1.6 among Chinese and Vietnamese patients, respectively. All PHCs in China and Vietnam could access internet although only 20% of sampled facilities in Kenya had internet access. In terms of hardware, all the 46 PHCs had at least one desktop or laptop computer. Ownership of tablet devices was rare in both Kenya and Vietnam whereas almost half of the facilities in China owned at least one tablet device. Almost all the PHCs owned at least one basic smart phone.

**Conclusion & Significance:** In selected PHCs in China, Kenya and Vietnam, use of ICT was prevalent at both the facility and patient levels with varying degree of deficit across platforms and countries. ICT environment appraisals are crucial to the design and implement m-Health interventions for limited-resource settings.

#### **Biography**

Shuai Shao has her expertise in health system and chronic disease management in limited resource settings. She has published her research focusing on health system and chronic diseases in peer-reviewed journal and has presented at academic conferences in both China and United States. She has conducted her research in Kenya examining primary care based cardiovascular diseases management in urban slums. She has also provided advisory services on health financing to industry clients including MetLife and Roche. Prior to her current pursuit as Doctoral candidate, she was a Senior Research Manager with Access Health International in Shanghai, China. She is currently undertaking a Doctor of Philosophy from Melbourne School of Population and Global Health, University of Melbourne. With her sustained interests in ageing, gender equality, health system, non-communicable diseases in Sub-Saharan Africa. She aspires to improve access to quality health care and services for all, especially for the underprivileged groups.

shuaisshao@gmail.com

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# PUBLIC HEALTH, NUTRITION & EPIDEMIOLOGY

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## Polycystic ovary syndrome: An emerging public health challenges

Raminder Kaur and Maninder Kaur Panjab University, India

Polycystic ovary syndrome is one of the common endocrine dysfunction in women of reproductive age and is responsible for heterogeneous and manifold disorders. It is associated with enhanced risk of morbidity in terms of both reproductive and non-reproductive events such as increased possibility of cardio-metabolic, obstetric, oncology and psychological complication throughout the life span. The major determinants for these diseases are obesity, raised glucose level, raised cholesterol, physical inactivity, decreased vegetables and fruit intake and high blood pressure etc. PCOS patients not only show classic cardiovascular risks such as hypertension, diabetes mellitus and dyslipidemia, but also non-classic cardiovascular risks factors like mood disorder, depression and anxiety. Overall obesity is common among PCOS women and it further worsens the health status of women. Women suffering from PCOS exhibit higher prevalence of abdominal body fat as compared to their obese non PCOS counterparts. Currently, it is unclear whether long term risks are due to PCOS or obesity. Previous literature illustrated that androgen excess may be primary cause of fat deposition particularly visceral fat and leads to insulin insensitivity which is significantly reduced in obese and overweight PCOS women and further promote androgen excess. PCOS being a hidden epidemic across globe and needs awareness in diagnosis and management of the disorder with lifestyle modification like physical activity and diet.

#### **Biography**

Raminder Kaur has received her MSc in Anthropology from Panjab University, Chandigarh, India. She is a Junior Research Scholar (UGC) in the Department of Anthropology, Panjab University, India. Her current PhD research work is on polycystic ovary syndrome.

reetkaur1792@gmail.com



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# **Public Health, Nutrition & Epidemiology**

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# Scientific Tracks & Abstracts Day 2

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# PUBLIC HEALTH, NUTRITION & EPIDEMIOLOGY

July 23-24, 2018 Melbourne, Australia

# Hepatitis C virus testing and treatment among persons receiving Buprenorphine in an office-based program for opioid use disorders in Nigeria

Ayoola Samuel Abati

Lagos University Teaching Hospital, Nigeria

**Statement of the Problem:** In Nigeria, Hepatitis C Virus (HCV) infection is primarily spread through injection drug use. There is an urgent need to improve access to care for HCV among persons with opioid use disorders who inject drugs. The purpose of our study was to determine the prevalence of HCV, patient characteristics and receipt of appropriate care in a sample of patients treated with Buprenorphine for their opioid use disorders in a primary care setting.

**Methodology & Theoretical Orientation:** This study is used in retrospective clinical data from the electronic medical record. The study population included patients receiving Buprenorphine in the Office based opioid treatment (Obot) clinic within the adult primary medicine clinic at Lagos medical center between October 2008 and August 2015 who received a conclusive HCV antibody Ab test within a year of clinic entry. We compared characteristics by HCV aerostats using Pearson's chi-square and provided numbers/percentages receiving appropriate care.

Result: The sample comprised 300 patients. slightly less than half of all patients (n=134, 27.7%) was HCV Ab positive and were significantly more likely to be older Hausas and Yoruba's have diagnoses of Post-Traumatic Stress Disorder (PTSD) and bipolar disorder have prior heroin or cocaine use and be HIV-infected. Among the 134 HCV Ab positive patients, 126 (67.7%) had detectable HCV Ribonucleic Acid (RNA) indicating chronic HCV infection; only 8 patients (2.21%) with chronic HCV infection ever initiated treatment.

**Conclusions & Significance:** Nearly half of patients (47.7%) receiving office-based treatment with Buprenorphine for their opioid use disorder had A-positive hepatitis C virus antibody screening test, although initiation of HCV treatment was nearly non-existent (2.21%).

## Biography

Ayoola Samuel Abati has been practicing in Department of Infectious Disease at Lagos University Teaching Hospital. Currently, he is pursuing his PhD and holds a certification from Nigerian Board of Internal Medicine for Internal Medicine, Hematology and Infectious Diseases. He has been awarded the award of the Developing Leader in Medicine from Nigerian Medical Association for his excellent contribution in general treatment and towards the reduction of infectious diseases in Nigeria. He has completed his MBBS from Obafemi Awolowo University Teaching Hospital, Ile-Ife, Nigeria. He has completed is Master's degree in Public Health at the same institution. He was trained at the Department of Infectious Diseases during his Residency.

ayoabati@yahoo.com

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# PUBLIC HEALTH, NUTRITION & EPIDEMIOLOGY

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## Malaria surveillance system evaluation, Sunyani Municipality, Ghana-2017

Joseph Effah-Acheampong, Edwin A. Afari, S.O. Sackey Ameme Donne and Kenu Ernest University of Ghana, Ghana

Malaria, a preventable mosquito-borne disease, constitutes a major public health problem globally, particularly in Africa where it kills an estimated 394,680 people annually. In Ghana, Malaria accounts for 38.9% of all outpatient illnesses and 38.8% of admissions. Malaria is a priority disease under surveillance. The objective of the study was to evaluate the effectiveness of the surveillance system and assess the attributes and make appropriate recommendations.. We interviewed stakeholders and key informants using semi-structured questionnaires to understand the system operations. We reviewed and compared 2012-2016 malaria registers and reporting forms with existing data in the DHIMS 2. Using SPSS version 21, descriptive data analysis was done. CDC updated guidelines for evaluating public health surveillance system was used in assessing the attributes. Positive malaria cases declined from 50,504 in 2012 to 43,467 in 2013, continual increased to 56540 (47.1%) in 2016. Under 5 positive cases recorded, 2012 recorded 17,852 (35%), 2015 and 2016 recorded17, 611(32.8%) and 18,475(32%) respectively. Age group, 1-4 have the highest positive malaria cases, with mean 5,919. Of 88,103 malaria cases treated in 2014, 38.1% (n=33532) were not tested, 13% (n=8739) of 67,295 cases treated were not tested in 2016. Reporting rate of malaria datasets was 97.5%, three (3) out of (30) facilities do not report cases. The system is flexible, sensitive and stable. Timeliness (86%), Completeness (20) and predictive positive value 53,567 (49%) were poor in 2015. The surveillance system is meeting its objectives. Improvement on data completeness and timeliness needs to be done. Suspected malaria should be tested before treatment and followed up. Rigorous supervision on proper documentation and timely reporting should be enforced in the Municipality.

#### **Biography**

Joseph Effah-Acheampong is a public health researcher at a reputable non-governmental organization in Ghana. He holds a BSc in public health and currently pursuing a Master of Philosophy degree in Applied Epidemiology and Diseases Control at the School of Public Health, University of Ghana. With the rudiments in public health he has acquired, he has been involved in a lot of community health with much emphasis on infectious disease and control. He is currently the head of the public health unit of Anidaso Ghana ev. Mr Effah-Acheampong holds a certificate in monitoring and evaluation which gives him the skills to effectively monitor and evaluate interventions which are been implemented at all levels of the disease prevention and control cycle.

effahache19@gmail.com

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# PUBLIC HEALTH, NUTRITION & EPIDEMIOLOGY

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Frontline health workers profiling of Maternal and New-born Care (MNCH) burden in local communities in Nigeria: A case study of Bauchi and Cross River State

Ibrahim Suleiman, Godwin Unumeri, Ekechi Okereke and George Eluwa Population Council, Nigeria

Statement of the Problem: Women and children are faced with a huge disease burden in local communities where Frontline Health Workers (FLHWs) deliver maternal, newborn and child health services.

Methodology & Theoretical Orientation: To find out about the disease burden with a view to designing appropriate interventions towards empowering FLHWs to respond to the situation. A house hold survey was conducted among 1,548 respondents in selected LGAs of Bauchi and Cross River States (CRS), as part of a need assessment that took place in host communities. The data was analyzed using SPSS software.

Findings: Reported illnesses among women were diseases (Bauchi: 20.9%; CRS: 8.4%), eclampsia (Bauchi: 5.2%; CRS: 0.2%), 41.4% were treated in PHCs and 33.3% in chemists with recovery rates (Bauchi, 54.2%; CRS 51.2%) and reported client satisfaction (Bauchi: 91.5%; CRS: 69.4%). Newborn and under-fives mainly suffered from watery stool (Bauchi: 36.5%; CRS: 10.9%), treated at PHC (Bauchi: 22.4%; CRS: 18.5%) and responded to treatment (Bauchi: 29.8%; Cross River: 33.2%) and to household satisfaction (Bauchi 55.6%, CRS: 39.3%). For under-fives' illnesses report included fever (Bauchi: 55.6%; CRS: 49.8%), cough with catarrh (Bauchi: 24.8%; CRS: 37.0%) and watery stool (Bauchi: 17.8%; CRS: 10.8%) with treatment occurring in PHCs (Bauchi: 29.5%) and patent medicine vendors (CRS: 28.3%). Successfully treated under-fives (CRS: 56.2%; Bauchi: 40.6%) to household satisfaction (Bauchi: 66.2%; CRS: 62.4%). Deaths occurred among women 64% (Bauchi: 53.1%: CRS: 46.9%), due to wish of god (Bauchi: 38.2%), diseases (CRS: 46.7%), inadequate FLHW care in (Bauchi 41.2%) and spiritual attacks (CRS 73.3%). Newborns and under-fives died 79% (Bauchi 67.1% CRS 32.9%) from unknown causes (Bauchi: 41.5%; CRS: 30.8%) and wish of God (Bauchi, 88.7%; CRS 38.5%).

Conclusion & Significance: Knowledge of household disease burden and perception of the causes of death will help in designing effective interventions for FLHWs to mitigate maternal and child health related diseases.

## **Biography**

Ibrahim Suleiman has his expertise in health system strengthening, human resource for health and research. He is also a Reproductive Health Specialist working towards strengthening the health sector in collaboration with the Nigerian Government.

isuleiman@popcouncil.org

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# PUBLIC HEALTH, NUTRITION & EPIDEMIOLOGY

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# Improving timely attendance of 1<sup>st</sup> antenatal care among pregnant women using Timed and Targeted Counseling (TTC) model in Butaleja district, Eastern Uganda

Pascal Byarugaba, Richard Muhumuza, Chang Sub Lee, Eun Seok Kim, Mark Lule, Christine Oseku and Ingrid Natukunda World Vision International, Uganda

Statement of the Problem: High maternal mortality rate is one of major public health concerns in developing countries and most deaths are caused by factors attributed to pregnancy and childbirth. It is important to ensure coverage of early antenatal care services starting from the first trimester as one component to achieve these targets. World Health Organization (WHO) recommends that all pregnant women should attend Antenatal Care (ANC) at least four times before birth with the first being within the first 14 weeks of pregnancy. Early antenatal care visit gives the opportunity to provide screening and tests that are most effective early in the pregnancy like correct assessment of gestational age to allow for accurate treatment of preterm labor, screening for genetic and congenital disorders. Despite free ANC services in public health facilities in Uganda, only a handful of pregnant women attend first ANC visit in their first trimester. Development partners like World Vision International have developed and implemented initiatives and models like timed and targeted counseling targeting pregnant women to improve maternal health outcomes. This is built around evidence-based, cost effective key interventions for pregnant women and children under two that when taken together, can significantly reduce maternal and infant/young child morbidity and mortality. This paper presents how the ttC model has positively VHTs have improved maternal and newborn health care in Butaleja district.

**Methodology & Theoretical Orientation:** Through the KOICA funded Butaleja Maternal, Neonatal and Child Health (BMNCH) project, World Vision focused on the community-based models to address the delays in seeking appropriate care and inability to access care in a timely manner. This involved roll out ttC model by the community health workers to map, health educates, follow up and refer pregnant women for early MNCH services including attendance of timely 1st ANC.

**Findings:** A pre and post intervention analysis of Health Management Information System (HMIS) dataset before and after the intervention was conducted. Trend analysis of pregnant women attending first ANC in first trimester was done.

**Conclusion & Significance:** Village health team members have created awareness and demand and hence increased uptake of MNCH services.

#### **Biography**

Pascal Byarugaba is a Professional Health and Project Management Specialist with over six years of practical experience in program management, monitoring and evaluation for child survival, maternal and adolescent health, malaria and community health financing. Currently, he is supporting the Butaleja MNCH project as an M&E Officer. His research interest is in the development of strategies aimed at translating research works into meaningful and relevant policies to improve health outcomes in the global south. He has worked with international organizations including HealthPartners and Amref Health Africa on several community health systems strengthening programs in the local settings.

Pascal\_Byarugaba@wvi.org bpascal7711@gmail.com

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