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Highlighting delays in childhood immunization in low-income countries during conflict: Example from a study in Sierra Leone, West Africa

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Introduction: The Afro-European Medical and Research Network (AEMRN) is a Non-Governmental and non-profit Organisation with a strong vision of helping to improve the quality of life for people from and living in resource limited settings. The President of AEMRN and team undertook the above mentioned study in Sierra Leone West Africa to highlight this very important issue of delayed immunisation in low income countries and worse when compounded by wars. Sierra Leone underwent a decade of civil war from 1991 to 2001. From this period few data on immunization coverage are available, and conflict-related delays in immunization according to the Expanded Program on Immunization (EPI) schedule have not been investigated. We studied delays in childhood Immunization in the context of civil war in a Sierra Leonean community.

Background: Sierra Leone has undergone a decade of civil war from 1991 to 2001. From this period few data on immunization coverage are available, and conflict-related delays in immunization according to the Expanded Programme on Immunization (EPI) schedule have not been investigated. We aimed to study delays in childhood immunization in the context of civil war in a Sierra Leonean community.

Methods: We conducted an immunization survey in Kissy Mess-Mess in the Greater Freetown area in 1998/99 using a two-stage sampling method. Based on immunization cards and verbal history we collected data on immunization for tuberculosis, diphtheria, tetanus, pertussis, polio, and measles by age group (0-8 / 9-11 / 12-23 / 24-35 months). We studied differences between age groups and explored temporal associations with war-related hostilities taking place in the community.

Results: We included 286 children who received 1690 vaccine doses; card retention was 87%. In 243 children (85%, 95% confidence interval (CI): 80-89%) immunization was upto date. In 161 of these children (56%, 95% CI: 50-62%) full age-appropriate immunization was achieved; in 82 (29%, 95% CI: 24-34%) immunization was not appropriate for age. In the remaining 43 children immunization was partial in 37 (13%, 95% CI: 9-17) and absent in 6 (2%, 95% CI: 1-5). Immunization status varied across age groups. In children aged 9-11 months the proportion with age inappropriate (delayed) immunization was higher than in other age groups suggesting an association with war-related hostilities in the community.

Conclusions: Only about half of children under three years received full age-appropriate immunization. In children born during a period of increased hostilities, immunization was mostly inappropriate for age, but recommended immunizations were not completely abandoned. Missing or delayed immunization represents an additional threat to the health of children living in conflict areas. Hence delays in immunisation of children is among the numerous problems facing the population in effective adhering to the vaccine schedule leading to the children not being properly immunised for age and hence them being ultimately ill. This illness from preventable childhood illnesses further places huge economic burden on the entire family sinking them further into poverty. The cycle can be broken by highlighting this problem and discussing ways to minimise its impact on the vulnerable population.

Biography

Charles Senessie is a Medical Doctor and has lectured Dermato-Venereology at the Department of Medicine, College of Medicine in Sierra Leone, was deputy head of College of Medicine medical team at the Connaught University teaching hospital in Freetown and Director of the Vinel Community hospital in Freetown Sierra Leone. In Switzerland he has worked as a Research Assistant at the Institute of Social and Preventive Medicine (ISPM), University of Bern, Physician at the University Children's Hospital in beider Basel (UKBB) and part time Private Practitioner in Zollikofen. He has Worked as Consultant for the World Health Organization (WHO) Headquarters Geneva on several projects. He is currently working at the Division of Clinical Trials at Swissmedic in Bern Switzerland. He has concluded postgraduate studies in Epidemiology from University of London. He is currently pursuing PhD studies in International Health Research from Trident University International in the United States of America and a second PhD in Public Health from Walden University in USA. He is founder and President of the Afro-European Medical and Research Network and also CEO of Senessie Low-Income Countries Healthcare and Consultancy Services.

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