Failure of malaria control in Nchelenge District, Zambia

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Background: The burden of malaria has decreased dramatically in many parts of Southern Africa including Zambia. However, in Zambia the decline in the burden of malaria has not been uniform despite scaling up of various interventions. In order to better understand the underlying epidemiology factors, vector biology and parasite genomics to guide control strategies the Southern Africa International Centers of Excellence for Malaria Research (ICEMR) has conducted a series of studies including the prevalence of malaria in Nchelenge district. We report on the prevalence of malaria in Nchelenge District between April 2012 and May 2013.

Methods & Materials: Data on the prevalence of malaria was collected through passive surveillance of parasitaemia using SMS text messages from rural health centres and active case detection through cross-sectional and longitudinal community surveys.

Results: Eleven health care facilities reported 49,831 cases of confirmed malaria between April 2012 and May 2013. The prevalence of malaria by RDT was 40% among 638 residents of 169 households in the cross-sectional surveys and 66% among 165 residents of 29 households followed longitudinally every other month. The prevalence of malaria was higher in children 5 to 16 years of age (64%) compared with children younger than five years of age (38%) and adults older than 16 years of age (22%). The prevalence of malaria was 21% by microscopy in the cross-sectional surveys.

Conclusion: Nchelenge District continues to have a high burden of malaria despite malaria control interventions. This is higher than the national average. Efforts are being made to understand the main determinant of malaria prevalence in Nchelenge.

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A study on short duration fever in a tertiary care centre in Kolkata, India

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Background: Aetiology of short duration fever varies according to the population characteristics, geographical area and season. Generation of region specific data is needed.

Methods & Materials: From July 2011 to June 2012, 200 adults and adolescents >14 years of age presenting with fever (>99 degree F) of less than two weeks duration at School of Tropical Medicine, Kolkata were studied excluding patients with HIV infection, haematological malignancies and on immunosuppressive therapy. Detailed history and thorough clinical examination was done. Laboratory investigations were undertaken as appropriate for the clinical presentation using a syndromic approach. Patients were managed according to National Guidelines.

Results: Aetiology was identified in 193 cases. Chikungunya was the commonest cause affecting 44% of study population (55%-female). Most patients were 31-40 years of age. Arthralgia and rash were found in 94.3% and 80.7%. Pattern of joint involvement was small-28%, large -11% and both-61%. Malaria occurred in 15.5% of subjects (67.7% male), no age preference was seen. 22 had P.vivax and 9 P.falciparum. Splenomegaly was commoner with P.vivax. One had complicated falciparum malaria. Dengue was found in 10% cases (60% male). Most patients were between 31-40 years of age. Rash, myalgia, arthralgia and diarrhoea were observed in 19, 17, 11 and 3. Findings included purpura in 4, epistaxis, hypotension, signs of plasma leakage each in 2 cases. 2 patients had Dengue and Chikungunya coinfection. UTI occurred in 12% cases (75%-females). Most patients were 31–40 years of age. Respiratory tract infection occurred in 8.5% (53% male), organisms being S.pneumoniae-83%, K.pneumoniae-12%, H.influenzae-5%. In both UTI and RTI, incidence increased with age. Enteric fever was diagnosed in 5.5% cases (63% male). Leptospirosis was diagnosed in 2 male patients .7 cases remained undiagnosed despite meticulous search.

Conclusion: The ongoing epidemics of Chikungunya and Dengue were reflected in the results. Malaria is still an important problem. Other common causes like UTI, RTI and enteric fever were observed. Females were affected more by Chikungunya and UTI while males suffered more from Malaria, Dengue and RTI. Occur-
The initiative against diarrheal and enteric diseases in Africa and Asia: The role of field actors to successfully address the fight against cholera

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Background: The World Health Organization estimates that 3-5 million cases of cholera and 100,000 to 200,000 deaths occur yearly. Despite national and international efforts, cholera continues to represent a significant public health burden in Africa and Asia, now back to the Americas.

Methods & Materials: The Initiative against Diarrheal and Enteric diseases in Africa and Asia (IDEA, www.idea-initiative.info) is a network of independent, multidisciplinary and multinational health professionals involved in enteric diseases and cholera control and prevention from 20 cholera-prone countries in both continents. Considering that joint efforts will be more effective than individual ones, IDEA members are sharing information and analyzing experiences and practices in order to raise disease awareness and recommend appropriate policies and measures to improve control and prevention of cholera and other enteric diseases. Expressing a “bottom-up” view from “the field” through active advocacy towards local decision and policy-makers is the way to contribute to national and regional actions aimed at improving the control, prevention and ultimately the elimination of this scourge. Interdisciplinary, intersectoral and cross-border approaches allow cross-fertilization of knowledge and practices. It is the best way to design, initiate and/or support relevant and appropriate measures and their effective and sustained implementation.

Results: During its third annual meeting (13-17 January 2014), IDEAasia will prepare and issue a documented plea to national and local policy-makers to increase awareness about the health, social and economic burden of cholera to support ongoing international efforts towards the improvement of disease surveillance, case management and the introduction of oral cholera vaccine. It will advocate for the need for sustained resource allocation to improve water and sanitation systems as the ultimate goal to eliminate cholera.

Conclusion: On April 8-12, 2014, the fourth meeting of IDEAfrica will reinforce these messages to African countries, and then focus its activities on the analysis of - possibly erroneous - paradigms that drive cholera prevention and control and on the best approaches for cholera-prone countries to develop and implement integrated and operational plans for the management, control, prevention and elimination of cholera.

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Enumeration for health and government census data: Consensus or controversy?

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Background: Enumeration of catchment area communities is essential for planning and disease surveillance. Non-availability of such framework often results in over-reliance on national population census which uses a ‘de-facto’ method as opposed to the appropriate ‘de-jure’ method. We describe a process of carrying out a de-jure census as a prelude to a community-based surveillance of childhood infections in Ibarapa Central Local Government Area in southwest Nigeria.

Methods & Materials: During the first quarter of 2013, Geographical Information System was used to delineate the boundaries of the enumeration areas prior to conducting house numbering and ‘house to house enumeration’. The primary health care numbering system was used while data were collected using a structured questionnaire adapted from the National Demographic Health Survey. Rumours were actively investigated and documented. Data entry and analysis was done using SPSS version 15 while data checking and validation were done by independent epidemiologists using a 13-item validation tool. Households with missing information were revisited.

Results: A total of 17,812 households and 64,431 people were enumerated and this was substantially less than the national de-facto census figures of 102,979. Male: female ratio was 0.98:1. Under 5 population of the region was 6805; also with a male: female ratio of 0.99:1. First validation revealed 128 (98.5%) cumulative number of variables were accurate. Midway validation revealed 5 (1.3%) was not properly filled while end of census evaluation showed that out of the 156 cumulative variables examined, 7 (4.5%) variables were wrongly filled. Daily checks by supervisors supplemented by random weekly validation ensured minimal errors at the end of the exercise. Rumour documentation and investigation was essential for managing the issue of community misinformation about the purpose of the census. Independent community led monitoring of the process resulted in the discovery of seven additional settlements not captured in the national census.

Conclusion: A ‘de-jure’ census is essential for health planning as it presents a true picture of those normally resident in an area. The involvement of the community in all the stages (including monitoring) is crucial for programme efficiency and effectiveness. A proactive framework for documenting and managing rumors is also desirable.

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