



AMERICAN SOCIETY OF TROPICAL MEDICINE & HYGIENE
ADVANCING GLOBAL HEALTH SINCE 1903

VOLUME 97

NOVEMBER 2017

NUMBER 5 SUPPLEMENT

SIXTY-SIXTH
ANNUAL MEETING
November 5–9, 2017

The Baltimore Convention Center | Baltimore, Maryland USA

Abstract Book



astmh.org
ajtmh.org
#TropMed17



Supplement to
The American Journal of Tropical Medicine and Hygiene

score: 11, SD:2.9) and 1.4 (maximum score: 14, SD:2.5) respectively. Fidelity to evidence based clinical practice was low with facility providers displaying low knowledge and practice skills for the diagnosis and management of childhood diarrhea and pneumonia. Future programs should promote the use of F-IMNCI based clinical algorithms to distinguish non-severe from severe illnesses and strengthen case management skills of facility providers.

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A SLAUGHTER OF THE INNOCENTS: PEDIATRIC MORTALITY AMONG BOER CIVILIANS IN SOUTH AFRICAN CONCENTRATION CAMPS, 1901-1902

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The Second Boer War began in the fall of 1899 and ended in the spring of 1902. (The first had been fought two decades earlier.) Utilizing guerrilla tactics, Boer forces fought a bloody and costly campaign—particularly for the British—that lasted roughly two and half years. By the end of hostilities in May 1902, the conflict had cost the British some £200000 and roughly 55,000 deaths and casualties—nearly the number of men who were killed or wounded on the first day of the Somme (July 1915) or total American dead during the Vietnam War a half-century later.

The British commander, Kitchener, countered the Boer tactics in a brutal attempt to subdue the Boer population, combatants or not. As farms smoldered in the wake of this scorched-earth strategy, however, thousands of Boer civilians were sent to British-run “concentration camps.” (Similarly squalid camps had been established by the Spanish during the 1890s in an attempt to quell a grassroots independence movement.)

Camp-based infectious diseases rates among children quickly skyrocketed due to chronic malnutrition and, most of all, an ongoing lack of proper sanitation and potable water. This presentation will offer an analysis of concentration camp mortality among children and adolescents between 1901 and 1902, focusing particular attention on the wide differences across more than 40 camps in which Boer civilians were held.

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INDIVIDUAL CONSENT PROCESS IN CLINICAL RESEARCH IN SUB-SAHARA AFRICA, BAMAKO, MALI

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Individual consent process is important to carried-out a vaccine trial in the world. This process should be understood by the study subjects to follow and complete all the study procedures. In Mali, only 33.5% of the population is literate, to facilitate understanding of the consent process, the center for vaccine development of Mali make a translation of the inform consent into the national language and records on the audiotape. Individual inform consent procedure and obtaining are carried out by a trained CVD-Mali doctor with mature adult parent or gardien with witness as needed and respecting confidentiality. For non-literate parent or participant we translate the consent form in local language and play on audio tape and use an impartial witness from the community. From 2003 to 2017 we have conducted 16 clinical studies at CVD-Mali and administered individual consent to 19842 participants aged from 9 months to 85 years old including pregnant women. Among them 18861 have been vaccinated 95%. The most common questions and comments

were made by participant parents or gardien. Understanding of certain participants in relation to the technical terms used during obtaining consent, vaccine test or trial, Antibody; Randomization; Placebo; Why should blood be taken before and after vaccination, some participants are impatient, which leads them to want to sign a consent form without understanding its content, signing a consent form would be an act that could have other intentions beyond the scope of clinical research such as prosecution this is why they often ask the investigator to sign in his place, the participants did not understand why a signature? Informed consent is a complex process and can be an element of protection for those involved in research studies. A good understanding of parents is a better partnership and may generate less anxiety for parents or investigators.

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CONDUCTING CLINICAL TRIALS IN CRISIS SETTINGS, 2012 MILITARY COUP IN MALI AND THE EBOLA VIRUS OUTBREAK IN 2014 IN WEST AFRICA

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Clinical research in epidemic, political and economic crises is a complex challenge in countries with limited resources including Mali. In a crisis, an experienced and pragmatic approach to implementing clinical trials is essential. Mali experienced a military coup and a counter coup in 2012 and the Ebola Outbreak in 2014. Challenges reported by investigators, field workers, community members and study participants were recorded in different study documents including individual case report forms and field registers. We have gathered and analyzed these challenges. During the period of military political crisis, following the curfew in Mali in 2012, the priority in conducting clinical trials was the safety of CVD Mali staff and participants, recruitment of participants and their follow-up at home. Obtaining community leaders commitment, training community relays on the protocol for adverse events and serious adverse events detection, involving clinics and health centers in the area for receiving and guiding participants, home visits where conditions could permit and the alternative of using mobile phones allowed CVD staff ethical concerns around research methods, and field operational challenges such as cold chain management and effective communication with those affected. During the 2014 Ebola Virus Disease outbreak caused panic in the general population, many rumors and negative attitudes towards health activities and Response Teams. The development of a strong communication plan focusing on positive behavior changes, Mobilization of community leaders, religious and traditions healers allowed the continuation of activities in accordance with the rules of ethics and to reassure the health workers and the general population. Clinical studies are difficult to perform and follow during crisis. Team spirit and performance of the staff in the conduct of clinical trials allow obtaining good results. However, researchers, sponsors and authorities must work together to better manage these crisis in order to achieve good results.

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COLLABORATION IS CRUCIAL; DELIVERING RESEARCH SKILLS TRAINING TO THOSE WHO NEED IT THE MOST

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Everyone working in global health research should have access to effective and appropriate research skills training and this is particularly important in resource-poor settings where the need for locally applicable research findings is so important. There are initiatives providing research skills

training in resource-poor settings; but the majority of this training is face to face, cannot be accessed widely enough and often focus on a specific protocol or disease area. The Global Health Network has collaborated with multiple organisations and institutions to share training materials and produce 24 high-quality, peer reviewed online training courses across a wide range of research topic areas which are free, easily accessible and available to all. Courses range from individual module short courses that can take up to 2 hours to complete to much more in-depth multi-module courses that can take anywhere up to 8 hours to complete. These courses are hosted within the Global Health Training Centre, which is a trusted and well-regarded centralised training hub within the Network, and each course is designed to be accessible from areas with low bandwidth internet connection, which can often be a barrier to accessing online training from resource-poor settings. By the end of March 2017, over 214,000 modules on the Training Centre had been taken by over 32,000 individuals. In 2016, on average 1644 modules were taken per week by an average of 226 individuals. This equates to an average of 32 individuals taking a course daily. Over 2500 individuals provided feedback on the courses they had taken and over 96% stated they would recommend the course to a friend or colleague. The majority of individuals accessing the courses are from Africa. There is a clear demand for free, easily accessible, high quality online research skills training. Increased collaboration and sharing of training materials between organisations and institutions is required to produce further online training resources to support research staff and develop capacity to conduct research in some of the world's poorest areas.

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APPLICATION OF EVENT-BASED SURVEILLANCE FOR EMERGING INFECTIOUS DISEASE PREPAREDNESS IN U.S. EUROPEAN COMMAND HEADQUARTERS

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Event-based surveillance can be a reliable tool to fill gaps in surveillance information from traditional programs. For vector-borne diseases (VBD) and zoonoses, event-based surveillance permits monitoring of outbreaks, invasive vector species, reservoir hosts and imported disease cases. Collation of disparate information sources grants a comprehensive view of emerging VBD diseases and informs mitigation strategies in areas at risk. The US European Command (EUCOM) of the Department of Defense utilizes the Counter Biothreats Cell (CBC) for monitoring of infectious diseases of operational concern. The CBC conducts event-based biosurveillance in the EUCOM area of operation to mitigate risks associated with disease and ensure force health protection. By applying conceptual epidemiology principles for biopreparedness and bioresponsiveness, the CBC can discern disease trends, conduct rapid risk assessments and provide recommendations that inform decision-makers about potential risks and impacts of VBD emergence or outbreaks. Three examples of CBC assessments for diseases with differing epidemiological risk include Hantavirus, Crimean-Congo Hemorrhagic Fever (CCHF) and Zika virus. The CBC program successfully monitored the potential spread and impact of the Zika epidemic in 2015-16, emergence of CCHF in Western Europe and increased seasonal Hantavirus risk in Germany. Rapid analytics highlighted the timeliness and broad scope of biosurveillance when compared with traditional surveillance programs and allows for prompt information dissemination on prevention protocols and risk mitigation strategies. The CBC poses a unique opportunity to interpret disease surveillance data and determine operational impact. Biosurveillance programs can also provide documentation of risk likelihood for disease introduction and movement in lieu of traditional surveillance where resources are limited or overwhelmed. Application of surveillance information to military operations helps increase prevention efforts to ensure EUCOM is maintaining strategies for risk mitigation in disease movement.

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IMPACT OF COMMUNITY PERMISSION MEETING IN A LOW LITERACY SETTING IN SUB-SAHARAN AFRICA

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Clinical trials are recent activities in Malian culture. Community permission to implementation in research study search as epidemiological studies or vaccine trials in low income, low literacy settings (sub-Saharan Africa) play a key role in an understanding the study protocol in the study population. In developing countries like Mali where populations do not have much knowledge about vaccine research, community consent meeting is a prerequisite for the success of a research study. As an attempt to ensure an accurate understanding of the study risks and benefits, The National Translation Office translates the approved individual information consent and assent forms into the local languages and have it recorded on audiotapes. Community meetings are organized in collaboration with local religious and socio-cultural leaders and the community members. In addition to the public criers, invitations letters are distributed widely in the community. During the meeting, the audiotape is listened first by the audience; then the study investigators explain all study procedures, risks, benefits, and compensation. Community members are encouraged to ask questions. The community permission is obtained upon community satisfaction. The community permission allows to initiate and facilitate the process of individual informed consent/assent. From January 2006 to December 2017, we were able to observe the impact of community permission on screening in 10 clinical trials that CVD Mali has successfully conducted in the Malian communities, specifically in Bamako. A total of 25924 were registered among those 18094 were screening and 17163 were enrolled and vaccinated, with a retention rate of 94.9%. The success of a study depends on the degree of understanding of the community. For the population's comprehension of research studies, it is necessary to hold community permission meetings. Given the low literacy rate in the communities, it is important to develop strategies allowing them to better understand various aspects of the studies, and this can only be done by holding of community meetings before, during and after clinical studies.

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HIGHLIGHTING THE SUCCESSES AND CHALLENGES OF INTEGRATION OF SELF-CARE FOR PEOPLE AFFECTED BY FILARIAL LYMPHOEDEMA INTO EXISTING COMMUNITY LEPROSY SELF-HELP GROUPS IN NEPAL

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Lymphatic filariasis (LF) and leprosy are neglected tropical diseases endemic in Nepal. LF infection can lead to lymphoedema and hydrocele, while secondary effects of leprosy infection include impairments to hands, eyes and feet. The disabling effects of both conditions can be managed through self-care and the supportive effects of self-help groups (SHG). A network of SHGs exists for people affected by leprosy (PAL) in four districts in Nepal's Central Development Region, however no such service was available for people affected by LF (PALF). This study assessed the

