

Going Forward: Going forward, BVGH will continue its proactive partnering to develop new and impactful product development partnerships. The goal of WIPO Re:Search is to accelerate the development of marketed products for NTDs, malaria, and tuberculosis. As such, BVGH w

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Abstract #: 01CD015

Más miedo a una enfermedad que a un balazo [More afraid of a disease than a bullet]: Implementation of system-wide needlestick injury surveillance system in the Tijuana police department, Mexico

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Program/Project Purpose: In Tijuana, Mexico, people who inject drugs (PWID) report syringe confiscation by law enforcement personnel and syringe-related arrests despite legal possession. For police officers, handling used syringes is a serious occupational and healthcare risk. Public health and police departments are often at odds due to competing priorities. Unlike most upper income countries, Mexican police departments do not have systems in place to document and respond to a needlestick injury (NSI). The Secretaría de Seguridad Pública Municipal in Tijuana (SSPM-TJ) is among Mexico's largest municipal police forces (approximately 2100 police officers). Our main goal was to develop and implement a surveillance system documenting the incidence of NSI amongst law enforcement officers in SSPM-TJ to inform further research and program development while promoting a standardized protocol to reduce harm and prevent bloodborne infections including HIV.

Structure/Method/Design: In 2014, our binational research team conducted an anonymous and confidential occupational safety survey with 529 active duty police officers to inform the development of the SSPM-TJ department-wide NSI surveillance system. Almost 3/4 of respondents encountered syringes during their service; 15.4% reported having at least one NSI, of which 16.2% was within the last year. Three quarters of respondents were unaware of any protocol to respond to occupational NSI. The NSI surveillance program we developed encourages officers experiencing a NSI notify a direct supervisor and immediately go to one of two offices staffed 24-hours a day with a certified medical doctor to confidentially complete a NSI Exposure Report Form detailing the type and circumstances of exposure. Free HIV, Hepatitis B and C tests are available on-site. Officers are encouraged to seek free medical attention at a universal healthcare providers for police officers to follow up with blood serum tests and post-exposure prophylaxis (PEP) as mandated by their attending physician.

Outcomes & Evaluation: This standardized system tracks exposures and injuries that may facilitate urgent access to integral healthcare services including PEP. NSI data are managed by the department of Statistics and Special Projects at SSPM-TJ, who provide quarterly reports to our team including date of NSI and context of the NSI without identifying information.

Going Forward: This presentation highlights a binational and multi-sectoral collaboration spanning public health, law, security and emergency medicine. This unique collaboration addresses public health and public safety concerns while establishing, to our knowledge, the

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Abstract #: 01CD016

Risk factors identification of Dengue fever outbreak in Mansehra-Sept 2013, Shah IA, Baig MA, Ansari JA, Asghar RJ

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Background: Health department (HD) Mansehra (120 Km North of Capital City Islamabad in Khyber Pakhtunkhwa Province, Pakistan) received reports of 38 cases of Dengue in last three weeks of September 2013. An outbreak investigation was carried out to find associated risk factors and suggest control measures.

Methods: An outbreak investigation was carried out from Sept 28 to Dec 1, 2013. Residents of Mansehra, reporting fever at King Abdullah Teaching Hospital(KATH) Mansehra within last seven days, with at-least any two of symptoms; headache, rash, retro-orbital pain, myalgia, arthralgia, bleeding between Sep 1 and Dec 1, 2013 was considered Dengue suspect case. Confirmation was by positive dengue-specific Immuno chromatographic IgM/IgG and ELISA at National Institute of Health Islamabad. Age and sex matched controls were taken from the same area. Area was examined for environmental risk factors. Written consent was served and got signed from each participant, after getting the permission from the District Administration and Health Department.

Findings: 740 suspects were screened and 210 (28.4%) were found positive on ICT. The cases were predominantly male (n=134, 64%). Median age was 29.5years (range 3-85yrs). Major symptoms were fever (n=187, 89.05%), headache (n=193, 91.90%), rash (n=48, 22.46%), retro-orbital pain (n=165, 78.57%) and bleeding-manifestations (n=37, 17.62%). 614 age and sex matched controls were selected. Odds ratios were calculated which showed positive association with those living within 500 meters from local stream (OR=2.045, 95%CI 1.43-2.90) p value

Interpretation: Timely Larvicidal and Insecticidal Residual spray activities by local HD, restoration and stabilization of stream banks, covering water tanks and using mosquito repellent coils were recommended. Based on results a larger study is ongoing for mitigating the risk factors in 2014. Limitations faced were poor quality surveillance data, Laboratory based deficient facilities for ELISA at KATH Mansehra, and non-availability of entomologist in HD Mansehra.

Funding: Health Department Mansehra, District Administration Mansehra and National Institute of Health Islamabad Pakistan.

Abstract #: 01CD017

Participation in a mobile health intervention to improve retention in early HIV care in an informal urban settlement in Nairobi, Kenya: a gender analysis

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Program/Project Purpose: Mobile health (mHealth), the delivery of healthcare via mobile communication devices, has been shown to improve HIV treatment adherence in East Africa. Despite the growth of mHealth and the gender gap in mobile phone ownership and use in Africa, few studies have examined gender as it relates to mHealth. In this study, we will examine data from an ongoing trial of a text-messaging intervention to improve retention in early HIV care. Our objectives are to determine whether gender disparities in mobile phone access affect the ability to participate in an mHealth trial, and whether gender influences responses to and perceptions of the intervention.

Structure/Method/Design: Between April 2013 and October 2014, participants were recruited from two comprehensive care clinics in Nairobi, Kenya. Patients were eligible to participate if they were over 18 years old, HIV-positive, had mobile phone access, and could text-message or have somebody text-message on their behalf. Upon enrolment, participants were randomized in a 1:1 ratio to an intervention or control arm. Intervention arm participants received the weekly WelTel text-message 'check-in' to which they were instructed to respond within 48 hours. A clinician followed-up participants who identified a problem. In this observational study, only intervention arm participants were followed up, with one follow-up study visit coinciding with the participant's 6-month clinical visit. Patients provided written informed consent to participate, and the University of British Columbia and Amref Ethics and Scientific Review Committee approved the trial protocol.

Outcomes & Evaluation: As of October 2014, 648 patients have been screened for trial participation and 422 have been recruited. A chi-squared test will be used to determine whether the proportion of males and females excluded from trial on the basis of phone-related criteria differs. Participation in the mHealth intervention will be evaluated using the following outcomes: the proportion of okay ("Sawa."), problem ("Shida."), or non-responses to the weekly outgoing text messages. A negative binomial regression model will be built to analyze response rates by gender. Participant perceptions will include the greatest perceived barriers to and benefits of the intervention, disaggregated by gender.

Going Forward: With a sample size of 648, the study has 87.58% power to detect a significant difference between males and females excluded from the trial due to not meeting phone-related criteria. Once a sufficient number of participants have reached 6-month follow-up.

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Abstract #: 01CD018

Monitoring the HIV treatment and services cascade in Asia and the Pacific: A metric framework analysis

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Background: 'Getting to Zero', UNAIDS 2011-2015 strategy establishes an ambitious goal in the HIV pandemic response. With sustained incidence and often increasing HIV prevalence among key populations (sex workers, men who have sex with

men and people who inject drugs [PWID]), examination of the HIV treatment cascade from diagnosis of infection to achievement of reduction in viral load demands comprehensive data collection, analysis and presentation through application of a public health approach. The aim of this study was to employ a public health metrics framework to examine gaps in data and treatment coverage among people living with HIV (PLHIV) in the western pacific region.

Methods: We employed a conceptual metrics framework as per the World Health Organization (WHO) guideline released in 2014 with 21 indicators measuring parameters from HIV treatment, TB/HIV co-infection, PMTCT (Prevention from mother-to-child-transmission) services, and HIV among key populations (KP). We then constructed a database outlining relevant indicators from 2009-2013 among eight countries in the region (Cambodia, China, Lao PDR, Malaysia, Mongolia, Papua New Guinea, Philippines and VietNam). Consequently, we extracted relevant cross-sectional and aggregate national level data from key reports, publications and unpublished sources, and through consultation with WHO country offices, and mapped against the indicators. The results were cross-validated for accuracy by two reviewers, time-trend cascade graphs were constructed by categories and key findings were interpreted.

Findings: The results across eight countries over five years suggest that indicators measuring enrolment in care and achievement of suppressed viral load (< 1000 copies/mL) are under reported in the region. Furthermore, while Philippines and Mongolia showed the greatest increase in the number of PLHIV, others showed plateauing or reduction in incidence. PMTCT services across the region showed poor data quality and treatment coverage with Philippines performing the poorest with 4% of HIV diagnosed pregnant women receiving ARV in 2013. Results of TB/HIV co-infection services were generally well documented with Cambodia showing the greatest and VietNam showing the poorest retention of TB/HIV patients along the continuum of care. Finally, study of KP suggested that PWID were the least studied group with testing rates as low as 6% in the Philippines in 2013.

Interpretation: While metrics framework and construction of cascade graphs can be a significant tool in providing a visual snapshot of HIV epidemic on a large scale, it provides limited scope for asking comprehensive questions and distinguishing differences between cross-sectional vs. cohort data; both factors can impact the interpretation of data. Despite these shortcomings, this approach is a valuable tool with results suggesting a strong need for complete data collection, increased emphasis on linking HIV positive pregnant women with care and active intervention to increase testing rates among PWID in the region.

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Abstract #: 01CD019

Elements of a dirty face as individual risk factors for trachoma, from a cluster-randomized trial in Niger

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Background: Trachoma is the leading infectious cause of blindness worldwide and a neglected tropical disease caused by the bacteria *Chlamydia trachomatis*. Facial cleanliness has been shown to be associated with lower prevalence of trachoma, but it is not clear whether having a clean face is protective against trachoma or just an indicator of the absence of disease. Additionally, previous studies indicate that there is a weak correlation between a clinical trachoma