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22.021

Prevalence of Human Papillomavirus (HPV) Infection from Cervical Swabs of Normal Women in Southern Selangor, MalaysiaA.R. Nurul Asyikin^{1,*}, R. Rozita², C.K. Ng³, W.H. Wan Hamilton⁴, B.C. Tan⁵, M. Rusinahayati², P.P. Chong¹¹ Department of Biomedical Sciences, Faculty of Medicine and Health Sciences, UPM, Malaysia² Department of Obstetric and Gynecology, Faculty Of Medicine and Health Sciences, UPM, Malaysia³ Department of Obstetric and Gynaecology, Kajang Hospital, Kajang, Malaysia⁴ Department of Obstetric and Gynaecology, Serdang Hospital, Serdang, Malaysia⁵ Britannia Women and Children Specialist Centre, Kajang, Malaysia

Background: Epidemiologic studies have clearly shown that infection with high-risk types of Human Papillomavirus (HPV), types 16 and 18 causes most cervical pre-neoplastic and neoplastic lesions. HPV 16 being common genotype found in general population but it still remains among the most prevalent individual type in cervical neoplasias. Since HPV testing is becoming a more useful and important tool for cervical cancer screening in the past few years, this study was conducted to detect the HPV infection rate among healthy women or non-cervical cancer patients and to identify the HPV genotype in HPV-positive samples.

Methods: In this study we performed nested PCR using primers targeting the L1 gene of HPV against DNA extracted from cervical swabs obtained from non-cervical cancer women or healthy women attending regular Pap Smear clinics. To ensure the validity of the results, the PCR experiments were repeated at least 3 times for each sample, and rigorous controls were incorporated. The HPV types from each PCR positive sample were identified by DNA sequencing. All patients who participated in this study were also given self-administered, standardized questionnaire regarding their lifestyle and sexual activity.

Result: 60 out of 70 (85.7%) samples were positive for HPV infections. The most common HPV DNA type found was type 16 (60%), followed by 18 (7.1%), 33 (2.8%), 58 (1.4%) and 87 (1.4%). HPV 16, 18 and 58 are high-risk types associated with development of cervical cancer; whereas HPV type 87 is thought to have low-to intermediate-risk.

Conclusion: Our findings indicate that there is a high prevalence of HPV infection among the women studied; whereby HPV type 16 was the most common genotype among the healthy female population in Southern Selangor. This underscores the importance of educating the public regarding the significance of regular Pap smear screening and the benefits of preventive immunization with HPV vaccine.

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Respondent-Driven Sampling Technique to Study Prevalence of STI and HIV Among Female Sex Workers in Goa, India: Experiences from FieldS. Wayal^{1,*}, A. Copas², F. Cowan², V. Patel³, D. Mabey⁴, M. Shahmanesh⁵¹ Positive People, Goa, India; and Brighton and Sussex Medical School, Brighton, United Kingdom² Centre for Sexual Health and HIV research, University College London, London, United Kingdom³ Sangath, Goa, India; and London School of Hygiene and Tropical Medicine, London, United Kingdom⁴ London School of Hygiene and Tropical Medicine, London, United Kingdom⁵ Positive People, Goa, India; and Centre for Sexual Health and HIV research, University College London, London, United Kingdom

Background: Representative samples enables research to explore the patterns, risk factors and transmission dynamics of infectious diseases at a population level. Lack of population estimates of hidden groups like sex workers pose challenges to obtaining representative samples, thus compromising external validity. We aim to describe recruitment of female sex workers (FSWs) using respondent-driven sampling (RDS) to a HIV/STI epidemiology study conducted after the demolition of sex work (SW) area Baina in Goa, India. It was difficult to reach FSWs in the post-demolition period.

Methods: Ethnographic study of organisation of FSWs post-demolition (August-December 2004) led to recruitment of 59 'initial seeds' of different age, ethnicity and type of SW. They were paid \$2.50 for study participation and given three coupons to refer members from their social network, who in turn were also given three coupons to make referrals. Participants received \$1.25 for each successful referral they made. All participants also received free condoms, lubricants, treatment for STIs. Data was weighted to reduce potential recruitment bias (by social network size, age, ethnicity) using RDS Analysis Tool 5.4.0 (Cornell University, USA). Analyses were performed using Stata8, incorporating weights through survey analysis functions.

Results: 326 FSWs were recruited between November 2004-December 2005. Of the 59 initial seeds, 35 made referrals of which 57% made more than one referral. 5% of the FSWs who participated in the study refused to accept coupons to make referrals. RDS led to 6 recruitment waves. Majority had network size between 1 to 10. Substantial number of FSWs with no lifetime exposure to HIV prevention (61.3%) and 28% home-based FSWs throughout Goa were recruited indicating outreach of RDS to FSWs who might have been excluded in time-location or venue based sampling. Interpersonal dynamics and loose social networks among FSWs, and lack of trust meant more staff time per-recruited respondent.

Conclusion: RDS led to successful HIV/STI survey and could be used for implementing interventions among FSWs in Goa. However, extensive formative research, involvement of members proximate to FSWs, providing health related incentives played significant role in implementation of RDS

in our study setting with substantial cost and time implications.

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22.023

Case Finding Effectiveness of Partner Notification among Patients with Early Syphilis in Madagascar

N. Ravelomanana^{1,*}, M. Khan², K. Van Damme¹, B. Randrianasolo¹, V. Ramaniraka¹, N. Ranaivo¹, D. Ratsiambakaina¹, E. Hook³, F. Behets²

¹ *University of North Carolina, Madagascar (UNC-MAD), Antananarivo, Madagascar*

² *University of North Carolina, Chapel Hill, NC, USA*

³ *University of Alabama, Birmingham, AL, USA*

Background: Sexually transmitted infections (STIs) constitute a significant public health concern, especially in resource poor settings. Notification and medical evaluation of recent sexual partners of infected patients is important for STI control. However, research on partner notification effectiveness in resource poor settings is very limited.

Methods: We analyzed data collected in Madagascar during a multi-site Phase III randomized controlled trial (RCT) being conducted to evaluate the effectiveness of azithromycin for treatment of early syphilis versus treatment with benzathine penicillin G. We asked index cases who had proven early syphilis during screening to identify and provide contact information for recent sexual partners (cases with primary, secondary, and early latent syphilis reported partners in the past 3, 6, and 12 months, respectively). Index cases or, if requested by the index case, clinic staff members notified sexual partners of their potential exposure to syphilis and asked them to come to the clinic for syphilis testing.

Results: Of 565 index cases, 534 reported recent sex with ≥ 1 sexual partner, of whom 252 (47% of 534) reported ≥ 1 contactable partner. Of cases with ≥ 1 contactable partner, 247 (98% of 252) had ≥ 1 partner who was contacted. Of cases with ≥ 1 contacted partner, 191 (77% of 247) had a partner who came to the clinic and was tested. Of these, 106 cases (55% of 191) had ≥ 1 partner diagnosed with and treated for syphilis. Of 252 index cases with ≥ 1 contactable partner, 191 (76%) had ≥ 1 partner who was notified and medically evaluated for potential infection.

Conclusion: Partner notification involving cooperation of index patients and staff resulted in treatment of syphilis-infected individuals who otherwise would likely have remained untreated. However, >50% of index cases reported ≥ 1 contactable partner, indicating the need for other STI control and prevention strategies in addition to clinic-based partner treatment.

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22.024

Detection and Genotyping of *Chlamydia trachomatis* in Clinical Urogenital Samples from North-Eastern Croatia

Z. Bosnjak^{1,*}, N. Bosnjak¹, S. Dzijan², D. Pavlinic²

¹ *Insitution of Public Health Osijek, Osijek, Croatia*

² *School of Medicine Osijek, Osijek, Croatia*

Due to the chronic and 'silent' infection and variable antigenic structure of the *Chlamydia trachomatis* we supplemented Direct Immune Fluorescence with the molecular diagnostic method using COBAS TaqMan 48 real time PCR instrument. The fast molecular diagnostics of *C. trachomatis* infections and adequate therapy of the infected individuals are the crucial step in the *C. trachomatis* spread control. The epidemiological data obtained from the Osijek-Baranja County Institute of Public Health archives revealed the true number of chlamydia genital infections among other genital infections in the last five years in our county.

The aim of the present study has been to reveal the most prevalent serotype of the *C. trachomatis* detected in urine and gynaecological samples in the population of the Osijek - Baranja County and to monitor the infection and the therapy efficiency. The determined serotype distribution has been compared with the *C. trachomatis* distribution pattern in other regions of the World. All the samples were collected from the Osijek-Baranja County Institute of Public Health and gynaecologist's offices. COBAS TaqMan CT test is an in vitro nucleic acid amplification test which utilizes real time PCR technology. The test has been developed to confirm analogous detection of all 15 *C. trachomatis* serotypes and it produces results within 3 hours. Subsequently all the positive samples have been analysed directly by sequencing of the amplified omp1 fragments using Applied Biosystems 3130 Genetic Analyser. Genotyping and sequence mutation analysis have been performed by BLAST searching and compared with the reference sequences of all known *C. trachomatis* serotypes.

The most prevalent genotype in Osijek-baranja County was serotype E (in agreement with Sweden and Taiwan data), followed by F, G, D, K, J, H, B, and Ia (differs from Sweden and Taiwan data). Further investigation and data analysis are in progress.

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Surveillance Systems (Poster Presentation)

23.001

Polio Eradication and Acute Flaccid Paralysis Surveillance

P.T. Francis

Amrita Institute of Medical Sciences, Cochin, India

Objective: To review the impact of high non-Polio Acute Flaccid Paralysis (AFP) rate on Polio eradication.

Background: AFP surveillance is an essential strategy for achieving Polio eradication. Recently Advisory Committee for Polio Eradication (ACPE) doubled the operational target for non-Polio AFP to 2 to improve the sensitivity of AFP