

of congenital syphilis has increased by 23% since 2005 and, in 2008, 141 infants were infected with HIV, despite the fact that the CDC recommends routine prenatal syphilis and HIV screening. To encourage compliance with guidelines, many payers rely on claims data to track utilisation. In this study, the percentage of women screened for syphilis or HIV during their pregnancy was estimated using MarketScan claims data, as a measure of compliance and of the feasibility of using these data for assessment of prenatal screening.

Methods We analysed data from the MarketScan database, that allows linkage of de-identified patient and utilisation data from varying sites of care. The analysis was restricted to women who delivered a live birth in 2008, and who were continuously enrolled in one health plan for at least 293 days prior to delivery. The eligible population was identified using the coding algorithm for a live birth defined by HEDIS.

Results Among the 220 571 women with a live birth in 2008, 87.0% received a syphilis test during their pregnancy, 74.1% received an HIV test and 73.3% received both. The test rate for syphilis was highest for those 31–35 yrs (88.2%) and lowest for those 15–20 yrs (78.3%). The test rate for HIV was highest among those 21–25 yrs (75.2%) and lowest among those 15–20 yrs (70%). Both prenatal syphilis and HIV test rates were highest among those insured by a preferred provider plan. Regionally, testing rates were highest in the South (89.8% for syphilis and 82.1% for HIV) and lowest in the Northeast for syphilis (82.8%) and in the West for HIV (62.9%).

Conclusions The results suggest fairly good compliance with guidelines for prenatal HIV and syphilis screening, although utilisation still varies by age, insurance type and geographic region. The MarketScan database represents individuals covered by employment-based health plans, which is how most Americans are insured. These data provide a unique opportunity to assess utilisation among the insured, at a time when the USA is poised to move a larger proportion of the population into this group. Tracking of year-to-year changes could help public health and healthcare organizations partner to improve care and target interventions to ensure equal access to these critical services.

P1-S6.21 CHLAMYDIA TRACHOMATIS SCREENING INITIATIVE AMONG FEMALE US ARMY SOLDIERS DEPLOYED TO KOREA

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¹N Jordan, ¹N Clemmons, ²J Gaydos, ³J Fishman, ³T Jacobsmuhlen, ³H Choon Lee, ³M Meyers, ³T Klein. ¹US Army Public Health Command, Aberdeen Proving Grounds, Edgewood, USA; ²Armed Forces Health Surveillance Center, Silver Spring, USA; ³USA MEDDAC, Republic of South Korea

Objectives To determine the prevalence of *Chlamydia trachomatis* (Ct) infections among female US Army soldiers deployed to the Republic of Korea; to identify high-risk groups; and to develop data to inform Army leaders and public health decision makers regarding the program's impact.

Methods All females reporting (in-processing) to the Eighth US Army, Republic of Korea, between 1 November 2007 and 31 December 2009 received an educational STI brief and a questionnaire, and were requested to provide a urine sample for Ct and gonorrhoea testing using the Aptima Combo 2 Assay. Contact tracing was conducted for all identified cases. Descriptive analyses of the population of interest and data collected during calendar years 2008–2009 were performed. A logistic regression model was generated to identify statistically significant risk factors.

Results Women deployed to Korea differed somewhat demographically when compared to the overall female Army population; a higher proportion of known high risk groups was observed (eg,

women under 25 years of age). A total of 3761 women were screened during the 2 calendar years, with an overall positive rate of 5.7%. Ct rates were as high as 11.4% among women under 20 years, and decreased with increasing age. Rates varied considerably by race, with the highest rates observed among American Indians/Alaskan natives (9.3%), followed by Black females (6.5%). The Eighth US Army screening program was associated with diagnosis of infections at an earlier age (22.1 years on average during the screening program, as compared to 26.1 years on average before the program was initiated). Statistically significant differences were observed, with higher rates found among Black women and women <25 years of age.

Conclusion A high prevalence of infection was observed, highlighting the need for a continued Eighth US Army screening program. Furthermore, the program demonstrated that universal screening during Army in-processing was feasible and resulted in detection of Ct at earlier ages, which likely reduces disease transmission, medical complications, and associated costs with treatment. These findings have implications not only for the continuation of the program in the Republic of Korea, but also for the expansion of such programs during in-processing activities among other military high risk populations (eg, Army recruits).

P1-S6.22 CHARACTERISTICS OF CHLAMYDIA TESTING BY A LARGE COMMERCIAL LABORATORY CORPORATION, USA, 2008–2010

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¹C Kent, ¹G Tao, ¹K Hoover, ²B Body, ²M Nye. ¹CDC, Atlanta, USA; ²Laboratory Corporation of America, USA

Background US guidelines recommend chlamydia screening for all sexually active young women, HIV-infected persons, and men who have sex with men (MSM). Several types of chlamydia tests are available, including nucleic amplification tests (NAATs), DNA probe, and culture. Different assays have different sensitivity and specificity, and sensitivity and specificity also varies by specimen type. Because reported chlamydia trends could be impacted by shifts in the proportion of tests and specimen types used by providers and laboratories, it is important to monitor changes in test usage to help interpret reported trends in morbidity. We examined chlamydia testing data from one of the two largest commercial laboratories in the USA.

Methods Among chlamydia tests performed from June 2008—to July 2010 by this laboratory, we assessed the frequency of test types used by year, sex, specimen type, and positivity of these tests.

Results During these 2 years, 2.9 million specimens were tested for chlamydia. Among those tested, 86% were women. Tests performed were: 77% NAATs, 23% DNA probes, and 0.3% cultures. Between year 1 and 2, NAATs increased from 73% to 80% of all tests, and DNA probes decreased from 27% to 19%. Test type varied by sex; 88% of tests among men were NAATs compared to 75% among women. The top specimen types among women tested by NAAT were: 45% cervical, 35% urine and 18% vaginal. Chlamydia positivity varied by test type: 5.1% NAAT, 1.4% DNA probe, and 2.3% culture.

Conclusions NAATs were the most frequently used chlamydia test and their use increased over the evaluation period, creating a smaller market for other tests. Although vaginal swabs are the most sensitive specimen for testing women by NAAT, currently they are the least common specimen type used for testing. This may reflect the delayed introduction (FDA clearance) of the vaginal swab compared to other collection devices. Stocking the wide assortment of collection devices required for testing different specimens in different populations might also be a barrier for providers. Because

these data are from one of the largest U.S. laboratories, with representation by insurance type and geography of the U.S. population, they can be useful for monitoring testing trends. Laboratory testing data also might be a valuable adjunct for national surveillance of chlamydia positivity trends that would not be dependent on provider or health department reporting nor small sample size from national surveys.

P1-S6.23 IMPACT EVALUATION OF PERFORMANCE-BASED FINANCING (PBF) FOR HIV TESTING AND COUNSELLING FOR INDIVIDUALS AND COUPLES IN RWANDA

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¹S Bautista, ²A Binagwaho, ³J de Dieu Bizimana, ⁴J Condo, ³D de Walque, ⁵P Gertler, ¹A Kwan, ³J Sturdy. ¹Mexico National Institute of Public Health, Cuernavaca, Mexico; ²Republic of Rwanda Ministry of Health, Kigali, Rwanda; ³The World Bank, Washington, District of Columbia, USA; ⁴National University of Rwanda School of Public Health, Kigali, Rwanda; ⁵University of California, Berkeley, Berkeley, USA

Background The Government of Rwanda has nationally implemented performance-based financing (PBF) to improve the satisfaction and motivation of health workers, as well as access and quality of HIV/AIDS services in the context of scaling-up services. The scheme pays for 10 HIV/AIDS indicators (two related to HIV testing and counselling (HTC), which is believed to be a core strategy for decreasing HIV incidence and improving prevention and care). We present the effect of Rwanda's PBF program on individual and couple/partner testing as an entry point to other HIV services and in the context of scale up.

Methods Taking advantage of a prospective quasi-experimental design, an impact evaluation was conducted during phase-in of the Rwanda's PBF program in 2006 and 2008. Individual HTC was measured by whether or not the individual has ever been tested for HIV (371 treatment individuals (61.1% female), 378 control (56.6% female)), and partner testing was assessed by whether or not the sexual partners they had in the 12 months prior to the survey had ever been tested for HIV (208 treatment individuals (57.2% female), 202 control (52.0% females)). To evaluate the outcomes, a difference-in-difference fixed effects model was used with SEs clustered by district*year.

Results PBF increased HTC at the individual level by 9.45% from baseline ($p=0.07$). This effect was mainly found among married individuals (10.87% increase, $p=0.02$), specifically males (15.75% increase, $p=0.06$). PBF also increased testing among couples by an estimated 16.14% ($p=0.034$) increase from baseline, as reported by one of two partners.

Conclusion Our work provides evidence that PBF might be a useful tool to increase access to HTC for both individuals and couples. This is a remarkable result since couple testing has previously been difficult to encourage.

P1-S6.24 ESTIMATION OF PRENATAL SCREENING RATES FOR CHLAMYDIA, SYPHILIS, AND HIV AMONG LOW-INCOME WOMEN, CALIFORNIA, 2007

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J Chow, G Wright, G Bolan. California Department of Public Health, Richmond, USA

Background Prenatal screening for chlamydia (CT), syphilis, and HIV infection is recommended to diagnose and treat infection that

might otherwise be transmitted to the neonate and result in perinatal complications. Assessment of screening is important for programs serving low-income women who may be more likely to initiate care late in pregnancy and may be at higher risk for adverse perinatal outcomes.

Methods We analysed Medi-Cal program claims to identify low-income California female clients who delivered an infant in 2007 with ≥ 9 months Medi-Cal eligibility, ≥ 1 prenatal and family planning claim in the 42 weeks before delivery. Test claims in Medi-Cal and family planning claims during this period for CT, syphilis (including obstetric panels), and HIV were identified based on Common Procedural Terminology-4 codes. We estimated the percent of women screened for CT, syphilis, and HIV, and stratified by trimester screened, age (≤ 25 years; > 25 years), and race/ethnicity. Results of 181 390 Medi-Cal clients who delivered in 2007, the percent with ≥ 1 prenatal test for all 3 STDs was 62% and for CT, syphilis, and HIV was 73%, 77%, and 62%, respectively, with little variation by age and race/ethnicity. Among 125 444 women who initiated care in the first trimester the percent tested for CT, syphilis, and HIV was 78%, 83%, and 68%, respectively. Among 11 802 women who initiated care in the third trimester the percent tested for CT, syphilis, and HIV was lower at 43%, 48%, and 31%. Among women who were tested in the first trimester, the percent re-tested in the third trimester for CT, syphilis and HIV was 21%, 30%, and 5%, respectively.

Conclusions These lower than expected STD prenatal screening rates should be considered minimum estimates. Estimates have not included testing from all other healthcare programs accessed by women prior to delivery in the Medi-Cal program and have not been validated against medical records. Nevertheless, the lower rates of testing among women with late prenatal care initiation and the relatively low rates of HIV testing as compared with syphilis testing despite legislative mandate are concerning and further studies are needed to understand reasons for these differential rates.

P1-S6.25 THE MALE REPRODUCTIVE HEALTH PROJECT: USING RESEARCH-BASED INTERVENTIONS TO INCREASE MALE CLIENTS AND STI TESTING AT FAMILY PLANNING CLINICS

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¹D Fine, ¹S Goldenkranz, ²J Adamian, ²S Ranjan, ³A Pan, ⁴J Baker, ⁵E Rink, ⁶N Tran, ⁶D Johnson, ¹A Carlon. ¹Center for Health Training, Seattle, USA; ²Family Health Centers of San Diego, San Diego, USA; ³San Diego State University, San Diego, USA; ⁴Planned Parenthood of Montana, Great Falls, USA; ⁵Montana State University, Bozeman, USA; ⁶DHHS/OPA/OPF, Rockville, USA

Background Women comprise $>95\%$ of US family planning (FP) clinic clients. The Male Reproductive Health Project (2008–2013) is a national research demonstration effort implementing empirically-based interventions to increase male FP clients and male testing for sexually transmitted infections (STI).

Methods In 2009 interventions at 5 FP grantees included: male outreach via FP clinics' female clients and other agencies serving men, clinic efficiency assessments, FP staff training, and modifying clinic environments. Study population currently includes male FP client visit records (2004–2009) from 2 grantees. In separate analyses for Montana (MT) (2891 visits) and San Diego (SD) (7008 visits) grantees we analysed chlamydia (CT) testing (urine/NAAT) and positivity (CT+) by clinic, age, race/ethnicity, intervention status (pre: 2004–2008; post: 2009), insurance status, new/returning client, and federal Title X FP funding. Multivariate models developed.