

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.

Results MT-67% of visits aged 20–29 y; 94% non-Hispanic whites. Annual visits increased 60%–pre-intervention (2004–2008) \bar{x} =438 visits/y; post (2009)=702 visits. CT testing increased 44% (2004–2008 \bar{x} =58% of visits/y tested; 2009: 78% tested). Significant ($p<0.05$) multivariate factors related to CT testing: intervention status (AOR=2.21), racial/ethnic minority (AOR=2.06), new client (AOR=5.59), visit's federal funding (AOR=3.04), and clinic (Billings: AOR=0.45). CT+ was 13.9%. Factors related to

Abstract P1-S6.25 Table 1 Characteristics of male family planning client visits, CT testing and positivity—2004–2009†

Characteristic	No.	Percent	% CT Tested	% CT Positive
Grantee: Planned Parenthood of Montana	2891	100	59	13.9
Clinic				
Missoula	2009	69	63*	13.6*
Billings	882	31	51	14.6
Age (years)				
<20	381	13	67*	17.8*
20–24	1217	42	60	17.3
25–29	700	25	60	10.5
>29	572	20	54	7.6
Race/ethnicity				
Non-Hispanic white	2730	94	59	13.7
Minority	161	6	63	16.5
Intervention status				
Pre (2004–2008)	2189	76	54*	13.2
Post (2009)	702	24	78	14.9
Insurance				
No	1995	69	58*	15.3*
Yes (public or private)	896	31	62	11.0
Client status				
New	1316	60	77*	14.8
Continuing	877	40	35	11.4
Federal Title X funding				
No	1873	65	49*	11.1*
Yes	1018	35	78	16.1
Grantee: Family Health Centers, San Diego, CA‡	7008	100	31%	6.4%
Clinic				
Logan	4732	68	31	7.5*
Beach	2276	32	32	4.3
Age (years)				
<20	252	4	25*	14.6*
20–24	1334	19	32	9.7
25–29	1686	24	33	7.8
>29	3736	53	30	3.9
Grantee: FHC, San Diego cont.				
Race/ethnicity				
Non-Hispanic white	1726	27	31	6.4*
Non-Hispanic black	335	5	29	16.4
Hispanic	4428	68	32	6.0
Intervention status				
Pre (2004–2008)	5773	82	29*	6.4
Post (2009)	1235	18	41	6.5
Insurance				
No	2258	32	35*	2.7*
Yes (public or private)	4749	68	29	7.6
Client status				
New	1979	28	44*	9.8*
Continuing	5029	72	26	4.3

*Statistically significant ($p<0.05$) univariate differences.

†Calendar Year 2010 data available March 2011.

‡All FHC San Diego clinic visits are federal Title X funded; measure excluded from this grantee's results.

CT+: age<20 y (AOR=2.44, Ref:>29 y), no insurance (AOR=1.67), and federal funding (AOR=1.76). Annual female FP clients were stable (2004–2008: 5085/y; 2009: 5650). SD-43% of visits aged 20–29 y; 66% Hispanic. Annual visits increased 18%–pre-intervention \bar{x} =1045/y; post=1235 visits. CT testing increased 41% (pre: \bar{x} =29% of visits/y tested; post: 41% tested). Factors related to testing: new client (AOR=2.39) and intervention status (AO=1.76). CT+ was 6.4%. Factors related to CT+: age<20 y (AOR=3.13), black race (AOR=2.29), new client (AOR=2.47), and clinic (Beach: AOR=0.40). Annual female FP clients were stable (2004–2008: 4440/y; 2009: 4833).

Conclusions Early data indicate FP clinic interventions significantly increased male clients and the proportion tested for CT without reducing female FP clients. Screening prioritised new male patients. Like other CT programs, young and minority males have increased infection risk. CT positivity varied by clinic, supporting use of local data to inform male STI services at FP clinics.

P1-S6.26 MODELLING THE IMPACT OF RAPID TREPONEMAL TESTS ON SYPHILIS PREVALENCE AMONG FEMALE SEX WORKERS IN INDIA

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¹S Mishra, ²S Moses, ¹M Pickles, ³B M Ramesh, ³S Isac, ³R Washington, ²M Becker, ²J Blanchard, ¹M C Boily. ¹Imperial College, London, UK; ²Centre for Global Public Health, Canada; ³Karnataka Health Promotion Trust, Bangalore, India

Background Rapid treponemal tests performed at point-of-care (POC) are being used to scale up syphilis (Tp) screening in high-prevalence resource-limited settings. However, their advantage over offsite rapid plasma reagin (RPR) may be offset by variable sensitivity when used as POC, and the potential for resurgence in infectious cases due to enhanced treatment of latent Tp and loss of acquired immunity. We compare the change in prevalence of infectious Tp using different screening methods within a community of female sex workers (FSWs) in Karnataka, India.

Methods We developed a deterministic model of heterosexual Tp transmission between FSWs and their clients. Test sensitivities were estimated against a reference laboratory RPR with a confirmatory test. Main outcomes included predicted changes in FSW and client infectious Tp prevalence at 30 years, and post-intervention rebound in infectious Tp.

Results Reductions in infectious Tp prevalence achieved by screening were highest in areas with low initial treponemal test positivity, and were relatively insensitive to variations in parameter assumptions. At least once a year screening with a 100% sensitive POC test reduced infectious prevalence to an equal or greater extent as compared to a 100% sensitive offsite RPR test. A paradoxical rebound in infectious prevalence was observed after start of POC or RPR screening in approximately half of scenarios but resurgence above pre-intervention levels was rare (<5% of scenarios). Rebound was most likely in high-prevalence regions (treponemal test positivity 35–45%), where it manifested after 3.5 to 8.6 years, depending on assumptions on duration of immunity and sex-work turnover, and could be prevented with screening every 3 months. The ability to detect resurgence depended on frequency of monitoring and size of the surveyed population. POC screening of variable sensitivity was equally or more effective at reducing Tp prevalence than offsite RPR (sensitivity 100%) when follow-up was less than 50% (POC sensitivity 70%) and 70% (POC sensitivity 95%).

Conclusions Rapid treponemal POC tests have the potential to be as or more useful than offsite RPR tests within a high-risk population, when offsite RPR is unfeasible or return visits are