**Methods** The study randomised 10 paediatric clinics (5 experimental, 5 control) within a large Northern California health maintenance organization (HMO). Clinics in the experimental group received a systems-based clinical practice improvement intervention (CPI) and controls received a traditional provider education intervention. The original study took place between 2000 and 2002 (Shafer*et al JAMA*, 2002). After the study ended, the intervention was translated to the remaining clinics including to the five controls. Data were tracked for four additional years (2003–2006). The proportion of 14–18-year-old girls who had sexual intercourse and who were screened for CT during their routine checkups was calculated using the same methodology as the original study. We assessed changes in the rate variable over time, within sites and between the intervention and control groups using linear mixed effects models with random intercepts.
**Results** The average screening rate in the intervention group was sustained at an average of 60% during the 4-year follow-up period (CI 0.41 to 0.79) with no significant increases over time. Prior to translation activities, the proportion screened in controls was 21%. After translation activities, the control group exhibited statistically significant linear and quadratic effects of time (p=0.0019 by Wald $\chi^2$ test). The estimated rate for the controls was 0.42 (95% CI 0.25 to 0.59) at time 1, increased to a maximum of 0.69 (95% CI 0.55 to 0.83) at year 2.5, then declined to 0.52 (95% CI 0.35 to 0.70) at the end of year 4.
**Conclusions** This CPI systems intervention was both translatable and sustainable to other paediatric clinics within this HMO.

## Health services and policy poster session 4: innovation

### P5-S4.01 TRACnet: SUSTAINING mHEALTH AT SCALE IN RWANDA

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J P Nyemazi. *Ministry of Health, Kigali, Rwanda*

TRACnet is an mHealth system that has been supporting the national HIV/AIDS program of Rwanda since 2004 with funding and technical support from the US Centers for Disease Control. The longest continuously operating national mHealth system in Africa, TRACnet was built by Voxiva for and with the Government of Rwanda and the Center for Treatment and Research on AIDS, Malaria, Tuberculosis and Other Epidemic diseases (TRAC Plus). Today, more than 350 facilities offering ART, VCT and PMTCT submit monthly program indicators and receive lab results using the web or mobile phones. 91% of routine reports use mobile phones to report; the rest use the Internet. Using Rwanda's burgeoning mobile infrastructure, TRACnet has achieved 67 months of continuous nationwide routine reporting of data on ART care since 2004. In addition, more than 100 000 patients on care and treatment have been registered. The system includes >8000 reports submitted, >98% reporting rate, 1200 users, >100 000 patients registered The Ministry of Health and TRACPlus are also extending the system to incorporate integrated disease surveillance and response. Voxiva has an active partnership with MTN which is providing a national toll-free line to TRACnet, GPRS SIM cards and free access for users. Data collected by TRACnet is used for a variety of purposes, for example: to monitor program expansion and progress; drive performance-based incentive payments to health center; deliver lab results to facilitate early infant diagnosis; and provide donor reporting. Sustainability is a major focus of the TRACnet program. An innovative framework that addresses all components of operating and maintaining a national enterprise system guides capacity building efforts in collaboration with Rwanda's School of Public Health. This abstracts presents the experience of 6 years of continuous operation of an mHealth solution at national scale.

### P5-S4.02 ROUTINE HIV TESTING OF FAMILY MEMBERS OF HOSPITALISED PATIENTS: A NOVEL APPROACH TO HIV TESTING IN NIGERIA, SUB SAHARA AFRICA

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[1]O Busari, [2]A Adeyemi, [3]M Nakayima. *[1]Federal Medical Centre, Ido-Ekiti, Nigeria; [2]Family Health International, Abuja, Nigeria; [3]The AIDS Support Organization, Masaka, Uganda*

**Background** In traditional African setting, family members are closely knitted and provide effective social and supportive care for their loved ones during admission in hospitals. HIV testing for family members of HIV positive (HIV+) patients may enhance disclosure of status of spouses, encourage family social support and improve access to HIV services. The objective was to evaluate the approach of HIV testing of family members of both HIV+ and HIV− patients on admission in a large national HIV-treatment centre in Nigeria, West Africa.
**Methods** This was a prospective study in which HIV testing was offered to consented family members of HIV+ and HIV− patients on admission between January 2009 and June 2010.The family members included spouses, children of patients, parents of paediatric patients and other family members. Analysis was done in frequencies and percentages.
**Results** 2829 family members of 3284 patients were tested. The details are: spouses, 339 (12%); fathers, 255 (9%); mothers, 1442 (51%); and others family members, 792 (28%). 2630 (93%) of testers were first timers. Most of the testers (97%) had post-test counselling. Overall HIV prevalence was 14%: 7% among spouses; 11% and 7% among mothers and fathers respectively; and 4% among other family members. Discordant status occurred in 19% of couples tested.
**Conclusion** The results indicate that routine HIV testing of family members of patients on admission is a strategy for identification of large number of HIV infected persons. This method is not only innovative, but also a novel approach effective for scaling up of access to HIV prevention, care and treatment services in sub-Sahara Africa.

### P5-S4.03 SYSTEMATIC SELECTION OF SCREENING PARTICIPANTS BY RISK SCORE IN CHLAMYDIA SCREENING PROGRAMME IS FEASIBLE AND EFFECTIVE

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[1]C J P A Hoebe, [1]E E H G Brouwers, [2]J E A M van Bergen, [3]J S A Fennema, [4]H M Gotz, [3]R H Koekenbier, [5]E L M Op de Coul, [2]L Pars, [4]S M van Ravensteijn, [5]I V F van den Broek. *[1]South Limburg Public Health Service, Sittard-Geleen, Netherlands; [2]STI AIDS Netherlands, Amsterdam, Netherlands; [3]Amsterdam Health Service, Amsterdam, Netherlands; [4]Rotterdam Rijnmond Public Health Service, Rotterdam, Netherlands; [5]Centre for Infectious Disease Control, National Institute of Public Health and the Environment, Bilthoven, Netherlands*

**Background** Systematic screening for *Chlamydia trachomatis* (Ct) by individual invites ensures general reach, but is less (cost) effective, as it includes people at no or low risk. Selective systematic screening can overcome this. In a large-scale Chlamydia Screening programme in the Netherlands selection by risk score was applied in one region where relatively low prevalence was expected. Here we show the effect of selection on participation, positivity and acceptability in three srceening rounds.
**Methods** Invitees were alerted by personal letter to login to http://www.chlamydiatest.nl/ and fill in an 8-item questionnaire before a test could be requested. Questions, based on a prediction rule assessed in a pilot, addressed age, place of residence, education, ethnicity, symptoms, condom use and sex partners. Answers yielded different points accumulating in a risk score. Only invitees with