rating of 3.5/5); 47% of them received no ratings. There was no relationship between download frequency and rating; the most downloaded app (10k-50k downloads) received 20 reviews.

**Conclusion** Our study indicates that as yet, there are no fully functional apps that support the user throughout the entire pathway of STI awareness, testing, diagnosis management, prescription, partner notification and health promotion. There is a pressing need for sexual health apps which are validated and certified based on reliable content and meet high operability, privacy and security standards to appropriately exploit the potential health care benefits of mobile sexual health.

## P5.059 DEVELOPMENT OF A SMALL-MEDIA INTERVENTION TO BOOST HEALTHCARE PROVIDERS' KNOWLEDGE AND AWARENESS OF SYPHILIS IN AN URBAN US COMMUNITY

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**Background** St. Louis, Missouri remains a high-morbidity syphilis community. Implementation of a small-media intervention in 2005 to improve provider knowledge and awareness of syphilis led to transient declines in infectious syphilis, but rates have increased in recent years. We describe a formative collaborative project between university, health department, and community service organisation workers to develop a pocket-sized visual aid for boosting healthcare providers' awareness and understanding of syphilis epidemiology, clinical presentation, and treatment recommendations.

**Methods** In 2012, physician and nurse-practitioner key informants (N = 18) provided foundational data on essential areas of provider knowledge deficit, including (1) clinical aspects of syphilis management such as lesion characteristics, diagnostic tests, and treatment approaches; (2) epidemiological aspects such as populations affected and distribution by age, race/ethnicity, and gender; and (3) health department linkages for partner referral and evaluation. Best practises for reaching providers were also considered, including mail-based and internet-based modalities.

**Results** Several important aspects of current syphilis clinical presentation and epidemiological patterns were underappreciated by local healthcare providers, including high rates of syphilis among men who have sex with men (MSM), as well as high rates of syphilis-HIV co-infection. Rectal and oropharyngeal infection were also underrecognized. All of these were new developments since the previous version of small-media intervention. Informant recommendations led to the development of a high-contrast pocket-size small-media pamphlet containing text as well as visual prompts to boost provider knowledge and awareness of syphilis. The booster intervention is currently being rolled out city-wide through direct-mail and in-person distribution to primary healthcare providers.

**Conclusion** Changing syphilis epidemiology requires continued vigilance among provider groups tasked with early identification, treatment, and referral of populations at risk. Small-media visual aids to boost provider awareness and knowledge of syphilis transmission patterns are an important component of larger community-level syphilis prevention agendas.

## P5.060 COMPARISON OF THE APTIMA HIV-1 QUANT ASSAY TO THE COBAS AMPLIPREP/COBAS TAQMAN HIV-1 TEST, V2.0

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**Background** The APTIMA HIV-1 Quant Assay is a fully automated quantitative assay being developed on the PANTHER system and based on real-time Transcription-Mediated Amplification technology. This assay is intended for monitoring HIV-1 viral load in plasma specimens using a 0.5 mL sample.

**Methods** A cohort of 245 clinical specimens from University of Athens Medical School was tested using the COBAS AmpliPrep/COBAS TaqMan HIV-1 Test, v2.0 (Roche Assay) and the APTIMA HIV-1 Quant Assay (APTIMA Assay). The specimens included subtypes A, B, C and G as well as circulating recombinant forms of HIV-1.

**Results** Using a lower limit of quantitation for the APTIMA Assay of 30 copies/mL, 175 specimens gave results quantifiable for both assays. The correlation between the two assays was excellent (0.98), with a slope of 1.06 and an intercept of –0.13. Sixty-nine specimens gave results that were either detectable but not quantifiable or not detectable in at least one assay. Thirty were not detectable in both assays and 14 were detectable in both assays. The APTIMA Assay detected 13 specimens that were undetectable with the Roche Assay. There were 12 specimens that were detectable with the Roche Assay and undetectable with the APTIMA Assay. One specimen was above the upper limit of quantitation (10,000,000 copies/mL).

**Conclusion** The APTIMA HIV-1 Quant Assay gave comparable viral load results when compared to the Roche COBAS AmpliPrep/COBAS TaqMan HIV-1 Test, v2.0. The sensitivity of the APTIMA HIV-1 Quant Assay is similar to that of the Roche COBAS AmpliPrep/COBAS TaqMan HIV-1 Test, v2.0.

## P5.061 MICROWAVE-ACCELERATED METAL-ENHANCED FLUORESCENCE (MAMEF) POINT-OF-CARE TEST FOR THE DETECTION OF *CHLAMYDIA TRACHOMATIS*

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**Background** *Chlamydia trachomatis* (CT) is the most prevalent bacterial sexually transmitted infection (STI) reported worldwide. Accurate point-of-care diagnostic tests are urgently needed for the rapid treatment of patients. To address this need, we have previously developed a 16S rRNA-based Microwave-Accelerated Metal-Enhanced Fluorescence (MAMEF) assay for the detection of CT. Here we report the development of an additional CT cryptic plasmid-based MAMEF assay, the use of the assays on clinical samples and the implication of MAMEF as a point-of-care test.

**Methods** The cryptic plasmid-based assay was investigated with cultured, titered CT and vaginal specimens. Following the optimization of the assay, we tested a blinded cohort of dry-shipped vaginal swabs using both the 16S rRNA- and cryptic plasmid-based MAMEF assays, and compared the results to nucleic acid amplification tests (NAATs).

**Results** The MAMEF assays detected as few as 10 IFU/mL of CT in less than 10 minutes including DNA extraction and detection. A total of 257 vaginal swabs from 245 adolescent women (ages 14–22) were analysed by MAMEF. The overall prevalence of CT by NAAT was 17.5%. Of the 45 NAAT CT-positive samples and 212 CT-negative samples, 33/45 and 197/212 were correctly identified by both MAMEF assays (sens 73.3%, spec 92.9%). Using the plasmid-based assay alone, 37/45 CT+ and 197/212 CT- were detected (sens 82.2%; spec 92.9%). Using the 16S rRNA assay alone, 34/45 CT+ and 197/212 CT- (sens 75.5%; spec 92.9). For the overall % agreement with NAAT, the individual 16S rRNA and cryptic plasmid were 89.8% and 91%, respectively.