Syphilis testing in the public health setting in North Rhine-Westphalia, 2011-2012

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Results
- in 2011-2012, 7961 samples from clients of the LPHA were tested for syphilis antibodies
- there were 44.4% women, 54.8% men tested
- mean age was 32.8 years (range: 10-81 years)
- 705 reactive tests could be confirmed by further analysis (8.9% syphilis antibody prevalence)
- in 2011, the LPHA detected 79 out of 986 notifiable syphilis infections in NRW (8.0%) with higher proportions of MSM and women, 94% of them female sex worker (FSW), in comparison to total cases in NRW reported to the RKI (Fig. 4).

Background
According to the Robert-Koch-Institut (RKI) syphilis incidence is increasing in Germany especially among men who have sex with men (MSM). North Rhine-Westphalia (NRW) is the federal state with by far the highest number of infections with Treponema pallidum (1193 reported cases in 2012). By order of the NRW Ministry of Health the Landeszentrum Gesundheit (lzg.nrw) organizes and supports syphilis testing by local public health authorities (LPHA).

Objective
Aim of this study was to assess how many syphilis cases could be detected among LPHA clients and if hard-to-reach risk groups use the possibility of syphilis testing in this public health setting.

Material & Methods
- 46 out of 53 LPHA in NRW offered their clients a syphilis screening test after counselling
- a chemiluminiscent microparticle immunoassay (Architect® Syphilis TP Assay, Abbott Laboratories, Illinois, USA) was used in the German syphilis consiliary laboratory (Labor Krone, Bad Salzuflen)
- reactive screening test results were confirmed by Treponema pallidum particle agglutination assay (TPPA) and fluorescent treponemal antibody absorption test (FTA-abs)-IgG and further tested by 19s-IgM-FTA-abs and rapid plasma reagin assay (RPR) to assess activity of syphilis infection

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Conclusions
1. Approximately 87% of the LPHA in NRW offered anonymous syphilis testing to their clients.
2. Almost 8000 clients were tested for syphilis antibodies by the LPHA in 2011 to 2012.
3. The opportunity of syphilis testing was well accepted by many clients, especially by MSM and FSW.
4. A relevant number of active and latent syphilis cases (79) was detected among LPHA clients in 2011.
5. It could be shown that in this public health setting the LPHA were able to detect infectious syphilis especially in risk groups like MSM and FSW which might otherwise not have been tested.