Abstract for the International AIDS Conference, Washington, 21-28 July 2012 Title: Trends in recent infections among HIV-diagnoses from 2008-2011 using TRI. Results from two studies utilizing the BED-ELISA for incidence testing. Santos-Hövener C, Zimmermann R, an der Heiden M, Marcus U, Bätzing-Feigenbaum J, Kücherer C, Hauser A, Fiedler S, Tomschegg A, Hamouda O Robert Koch-Institute, Berlin, Germany

Background: Since 2008 testing for recent infection (TRI) is part of the German HIVsurveillance system. Using data from two consecutive incidence studies, we estimated recent infections (RI) for all new HIV-diagnoses overtime.

Methods: From 2008-2010, the incidence study took place and in 2011 a new research project piloting implementation of routine-TRI as part of HIV-surveillance was initiated. In both projects socio-demographic, clinical and laboratory data, and transmission group category was collected. Dried serum samples were tested for recency of infection (<140 days) using the BED IgG-capture-ELISA. Number of RI for all HIV-diagnoses was estimated using TRI-results of the study sample and interpolating these toward all newly diagnosed HIV-cases in the same time period.

Results: Since 2008, TRI-results were available for a representative number of newly diagnosed cases (2008-2010=53% (n=3,083); 2011=60% (n=1,720)). Proportion of RI was always highest in MSM (2008=34%; 2011=34%), compared to women (2008=23%; 2011=19%) and non-MSM-males (2008=23%; 2011=16%). After interpolation, total estimated number of RI remained stable from 2008-2011. Among MSM, projected number of RI was increasing overtime in MSM>45y and decreasing in MSM34-44y (figure 1).



Figure 1: RI in MSM overtime by age group

Among women and non-MSM-males number of RI decreased overtime (figure 2).



Figure 2: RI in women and non-MSM-males overtime

Conclusions: Higher proportions of RI in MSM probably reflect higher risk awareness and test uptake. RI in MSM is stable over time, even though there are differences in age-groups. Both on-going transmission and testing behaviour may impact on RI proportions. In recent years, efforts to increase test uptake have focused on MSM. If test uptake in this group increased, declining numbers of RI in MSM34-44y suggest declining HIV-incidence. Increasing numbers of RI in MSM>45y may suggest higher test uptake or increasing incidence. If testing behaviour in the other groups remained constant, results suggest a decrease in new infections among women, and non-MSM-males. To estimate population-based incidence, HIV-surveillance data should be used along with other data sources such as KABP-data to account for testing and risk behaviour changes.

Keywords: HIV, recent infections, TRI, Germany