Background Within the BORDERNETwork-project a biobehavioral sentinel surveillance was established in Austria, Bulgaria, Romania and Slovakia in 2010–12. The objectives were to record lab-confirmed CT (chlamydia, gonorrhoea, syphilis, HIV) in clinical settings and merge them with demographic and behavioural data to assess migration aspects, vulnerable groups and risk factors and recognize necessity for targeted interventions.

Methods On a monthly base, physicians reported aggregated STI testing data. Individual data was provided for each positive patient including demographics, re- and co-infections and assumed risk behaviour. Via patient questionnaires, information on socio-demographics, way of transmission and sexual behaviour was collected. All questionnaires were sent via regional to coordinating partners for merging and analysis.

Results Overall, 467797 tests were performed in 45 sentinel sites (Austria 13, Slovakia 14, Romania 15, Bulgaria 5). The countries varied in the number of STI tests (range: 6071 – 298645), positivity rate (range: 2–13%), patient characteristics and sexual behaviour: 75% of all women with an STI in Austria were sexworkers, compared to 5% and 8% in Bulgaria and Romania. 54% of all men with an STI in Slovakia had sex with men, compared to 4% in Romania. STI patients, especially women had a migration background in 79% in Austria, but less than 7% in the other three countries. Casual partners were the presumed cause of infection in the majority of MSM in all countries, whereas condom use in the last 6 months with these partners varied significantly between the 4 countries.

Conclusions Although not representative, sentinel surveillance gathers useful information on groups most at risk and can be compared between countries when using the same instruments. Legal and social issues can hinder disclosure of sexual preferences and practices and hamper targeted prevention. Enhancement of condom use with casual partners in MSM seems to be crucial, particularly in the East.