



BORDER|NET *work*

ROBERT KOCH INSTITUT



BORDERNETwork

STI Sentinel Surveillance in Bulgaria, Romania, Austria and the Slovak Republic

Karin Haar

Department for Infectious Disease Epidemiology

HIV/AIDS, STI and Bloodborne Infections Unit



Stakeholder meeting
18 November 2011, Berlin



Overview

- Background and development of the project
- Methods of the sentinel-surveillance
- Results
 - Data acquisition
 - Trends
 - Characteristics of patients with STIs
 - Demographics
 - Distribution
 - Sexual behaviour
 - Source of infection
 - Number of partners
 - Condom usage
- Limitations
- Benefits
- Discussion → Objectives of this meeting





Background

- Problems along old EU-borders:
 - Economic differences
 - Different health-care systems
 - Quality
 - Legal regulations
 - Increase of HIV-infections
 - Prostitution (partly involuntarily)
 - Big fluctuations → Migration
 - (Suspected) high number of STIs
- 2005: Introduction of a Sentinel-Surveillance within the Bordernet-project





Targets of sentinel-surveillance

- Recording of lab-confirmed STIs in clinical settings
- Acquisition of demographic AND behavioural data of patients
- Assessment of geographic distribution / migration
- Detection of epidemiologic trends
- Identification of vulnerable groups and risk-factors for STIs
- Generation of hypotheses
- Recognition of necessity for targeted interventions
- Documentation of outcome of interventions





Targets of BORDERNETwork

■ General

- Improvement of regional, cross border planning of tasks of prevention and treatment of STIs

■ Prevention

- Set-up cross border networks for HIV/STI-prevention
- Adjustment and improvement of regional prevention offers (KABP-surveys)
- Supporting regional prevention campaigns
- Training of multipliers
- Improvement and standardising of counselling



Targets of BORDERNETwork



■ Diagnostics

- Improvement and standardising of diagnostic procedures used for HIV/STIs

■ Epidemiology

- Building up a regional, cross border Sentinel-Surveillance for HIV and other STIs
- Conducting of surveys in special target groups

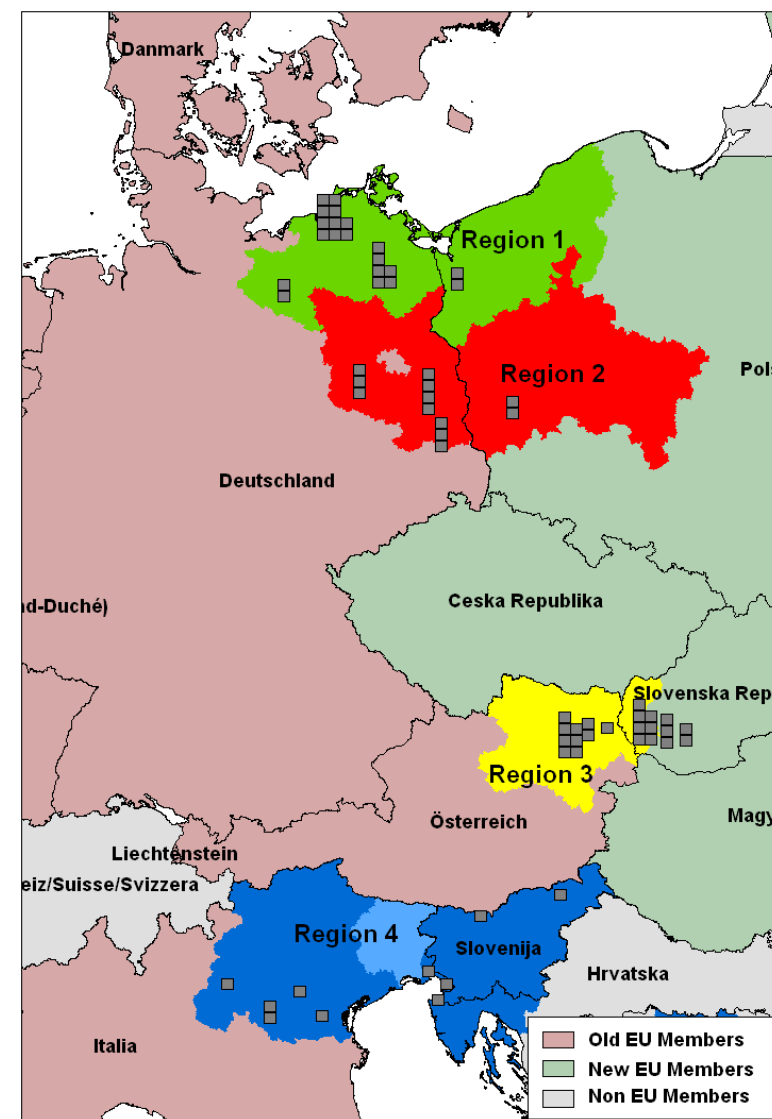




Bordernet 2005-2007

Bordernet 1.1.2005-31.12.2007

- 60 Sentinel-sites
- Between 2 and 15 in each region
- Number and composition of sites depending on the health-care system of the country
- Participating countries:
 - Germany
 - Poland (EU-Enlargement 2004)
 - Austria
 - Slovak Republic (EU-Enlargement 2004)
 - Italy
 - Slovenia (EU-Enlargement 2004)
- EU-funded

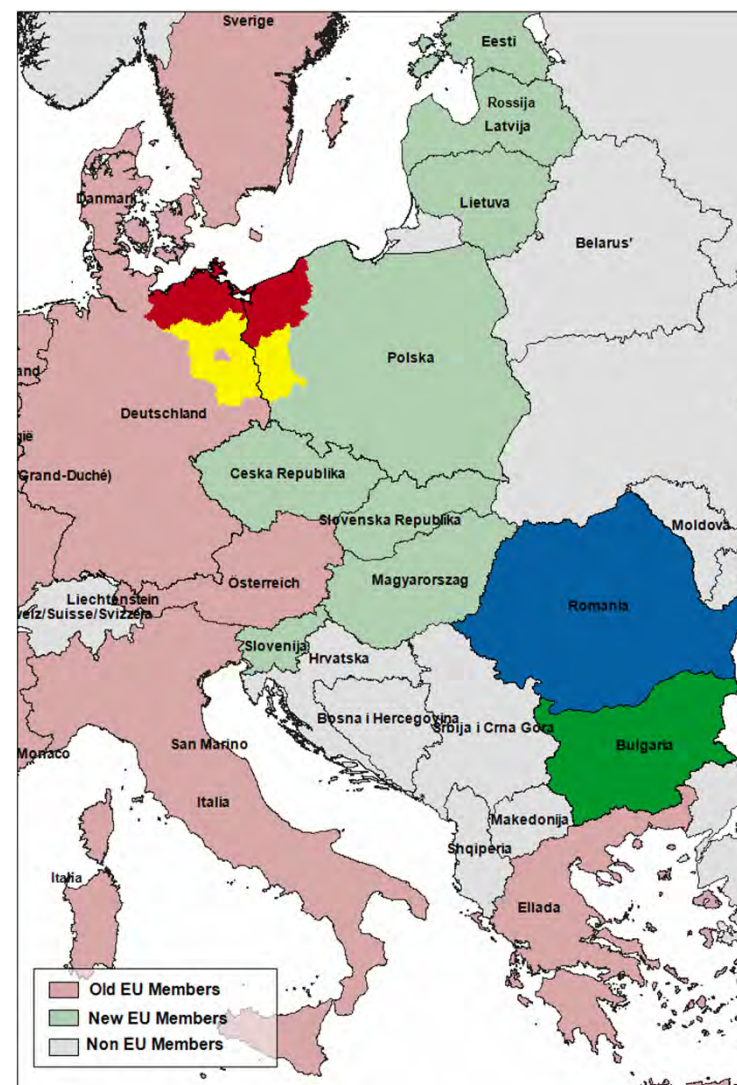


BORDERNETwork 2008-2009



BORDERNETwork 1.1.2008-31.12.2009

- 33 Sentinel-sites
- Between 2 and 11 in each region
- Number and composition of sites depending on the health-care system of the country
- Participating countries:
 - Germany
 - Poland
 - Romania (EU-Enlargement 2007)
 - Bulgaria (EU-Enlargement 2007)
- Funded by German MOH

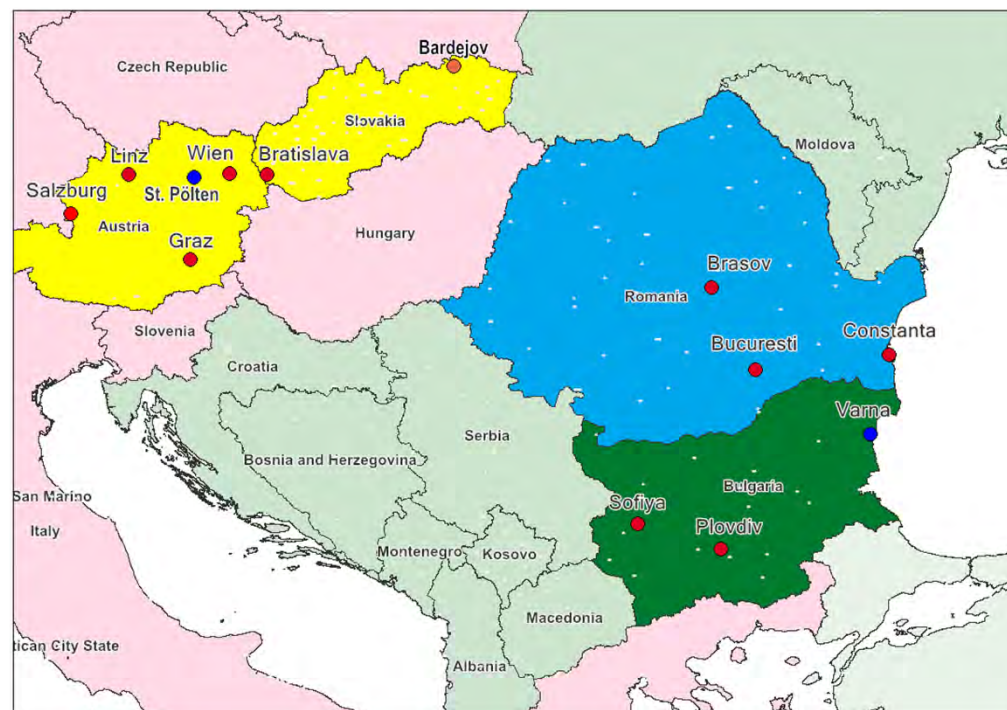


BORDERNETwork 2010-2012



BORDERNETwork 1.1.2010-31.12.2012

- Currently 28 (+11) sentinel-sites
- Currently participating sites:
 - Austria (n=7+10)
 - Slovakia (n=7+1)
 - Romania (n=9)
 - Bulgaria (n=5)
- EU-funded





Methods

- Sentinel-Surveillance-System
- Participants
 - All patients $\pm$ HIV/STD attending a participating sentinel site in the study period
- Indicators
 - **Newly** diagnosed infections (asymptomatic too) with
 - *Chlamydia trachomatis*
 - *HIV*
 - *Neisseria gonorrhoea*
 - *Treponema pallidum*
 - (Hepatitis B + C)
 - (HPV)





Methods: Data collection

- Sentinel-institutions
 - Public health offices (specialised on STI-/ HIV- care)
 - Specialized outpatient departments
 - University clinics
 - District Dispensaries for Dermato-Venereal Diseases
 - Policlinics
 - Practitioners specialized in STI/HIV
 - (Private) Consultants (Dermato-Venerology, Gynaecology, Urology)
 - Outreach programs / mobile units
 - Drop-in clinics



Acquisition of data – once only

■ Basic questionnaire – Characterisation of the sentinel-site

- Urban - rural
- STI / HIV-clinic
- Size
- Staff
- Diagnostic
- Anonymous / free of charge
- Demography of patients
- Risk-groups






Basic questionnaire for BORDERNETwork-Sentinels

Please send back to: Stamp or Address of Institution:

Filled in by Mrs. /Mr. _____
(Please circle the correct title)
Date: _____

Thank you very much for your cooperation in the context of the BORDERNETwork - Sentinel-Surveillance.

For later analysis and interpretation of the data concerning STIs we need some basic information about your institution. Therefore we kindly ask you to fill in this questionnaire and to send it back to the address above. All information will be treated confidential and will not be given to any other person.

1. How would you describe the service area of your institution? (multiple answers possible)

Rural area	☐
Provincial area	☐
Metropolitan area	☐

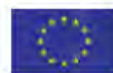
2. Is there a special STI- and/or HIV-consultation available at your institution?

STI	HIV
☐ Yes	☐ Yes
☐ No	☐ No

3. If yes, how often does the STI/HIV-consultation take place?

STI	HIV
☐ Daily	☐ Daily
☐ At least 1 time per week	☐ At least 1 time per week
☐ At least 1 time per month	☐ At least 1 time per month

This questionnaire arises from the project BORDERNETwork which has received funding from the European Union, in the framework of the Health Programme.





Acquisition of data - continuously

■ Monthly questionnaire

- # Patients
- # tests per STI
- # positive tests

■ Diagnosis questionnaire (1 per lab-confirmed positive case)

- Demography (Age, Gender, Background)
- History (Re-Infection, presumed way of transmission)
- Diagnosis (Co-Infection?)

■ Patient questionnaire (voluntary, different languages)

- Source of infection, behaviour
- Social background
- Sexual history

BORDER|NET work ROBERT KOCH INSTITUT

Reference Number: country - Nr. Institution - Patient-Number

Dear patient,
please fill in this questionnaire. Your answers will be treated anonymously and used only for scientific purpose. If something is not clear to you, do not hesitate to contact your doctor. Owing to your participation you will help us significantly to gain insight into sexually transmitted diseases!

Reason for examination and infection

Why did you come for an examination?
(You may mark with a cross a few readings of your answer)

I intended to make a health check ☐
I had some health problems ☐
My partner suffers from a sexually transmitted disease (venereal disease) ☐
I was afraid to be infected ☐
Other reason ☐
Which reason?

Where did you most probably get the infection?
Bulgaria ☐ Other ☐
If other country, which?
I don't know ☐

Did you work abroad within the last 3 years?
yes ☐ no ☐
If yes, in which country:

Were you affected by alcohol or drugs at the presumed time you got infected?
(You may mark with a cross a few readings of your answer)

Alcohol ☐
Cannabis (hashish, marijuana), Stimulant drugs (amphetamines, LSD, ecstasy), Poppers ☐
Cocaine, Heroin ☐
Other drugs ☐
Which other drugs?
I did not use neither drugs nor alcohol ☐

From whom did you get most probably infected?
From my permanent partner ☐
From an occasional partner / one night stand ☐
From a sex worker ☐
From a suitor ☐
Another source of infection ☐
Which source?
I do not know ☐

Person from whom you most probably got the infection
A man ☐
A woman ☐
I don't know ☐

Do you have:
Yes, for how long? years months

Did you have sexual contact to men or women during the last 6 months?
With men ☐
With women ☐
With both men and women ☐

With whom did you have sexual contacts during the last 6 months?
(You may mark with a cross a few readings of your answer)

With my permanent partner ☐
With occasional partners / one night stands ☐
With sex workers ☐
With suitors ☐
With others ☐
If with others, with whom?
I don't know / no answer ☐

Did you have sexual contacts during the last 6 month for which you received cash, drugs or accommodation?
Yes ☐
No ☐
I don't know/ no answer ☐

How often did you use condoms in sexual contacts during the last 6 month?
(please fill out every column)

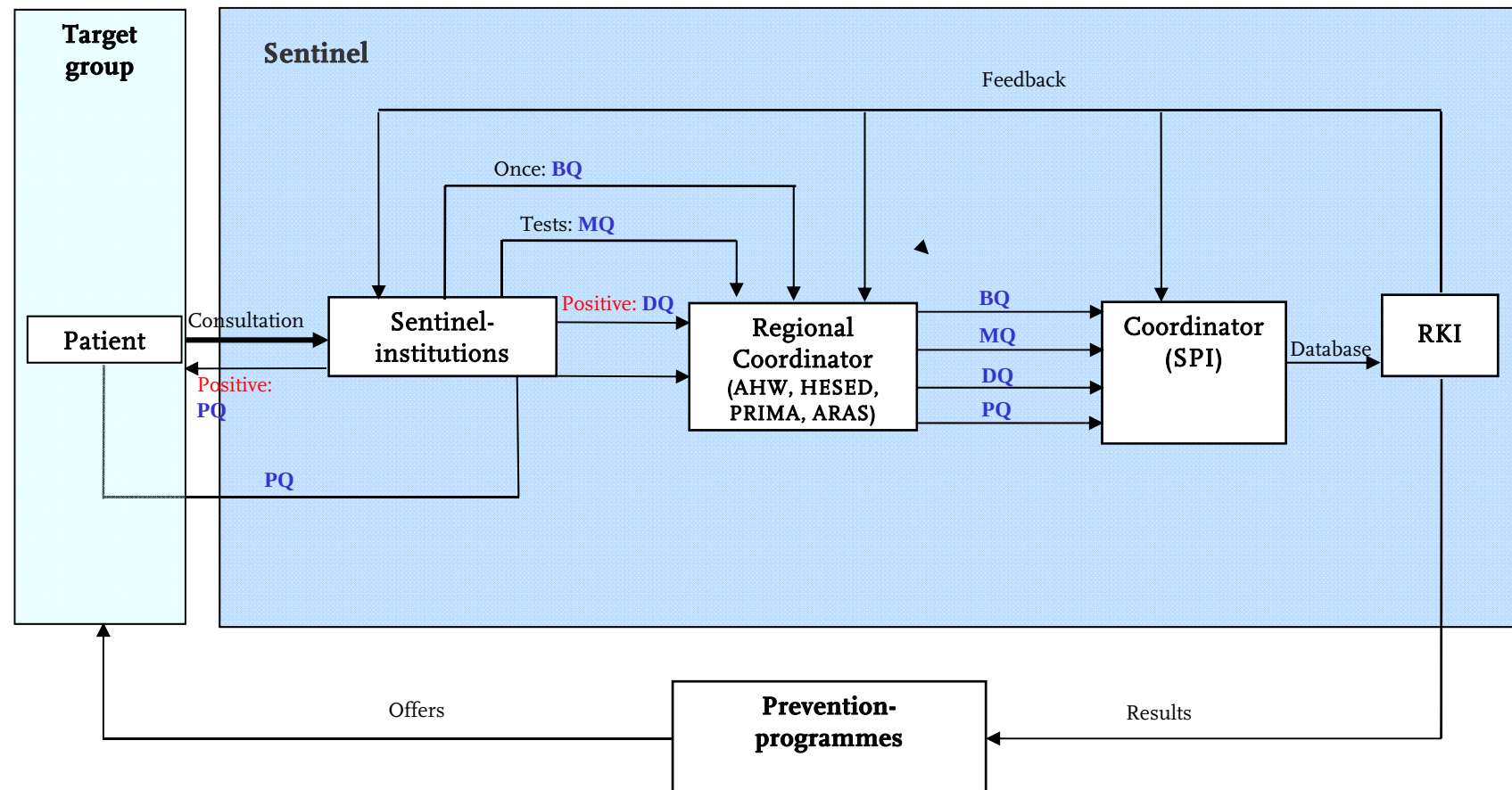
	Sex with permanent partner	Sex with occasional/ one night stand	Sex with sex workers / suitors
Always	☐	☐	☐
In half to nearly all of the cases	☐	☐	☐
In few to half of the cases	☐	☐	☐
Never/ very rare	☐	☐	☐
Don't know	☐	☐	☐
I didn't have sex with such a partner	☐	☐	☐

Merged at SPI / RKI





Data flow within BORDERNETwork



BQ: Basic questionnaire
MQ: Monthly questionnaire

DQ: Diagnosis questionnaire
PQ: Patient questionnaire





Interim Results

Data acquisition

Dataset: 3.11.2011



Austria

2006/2007 &
since 2010

203 MQ

127,364 Patients
216,117 Tests

2.0 %

4,299 STI-positive

2,758 DQ

22% ♂
12% ♀

16 %

428 PQ

Slovakia

2006/2007 &
since 2010

252 MQ

8,138 Patients
4,244 Tests

12.2 %

520 STI-positive

480 DQ

92 %

439 PQ

Bulgaria

Since 2008

157 MQ

79,928 Patients
129,556 Tests

2.3 %

2,990 STI-positive

769 DQ

46 %

354 PQ

Romania

Since 2008

155 MQ

10,143 Patients
13,350 Tests

9.2 %

1,224 STI-positive

1,037 DQ

56 %

576 PQ

16

MQ: Monthly questionnaire

DQ: Diagnosis questionnaire

PQ: Patient questionnaire



Austria

2006/2007 &
since 2010

2,758 DQ

22% ♂
12% ♀

16 %

428 PQ

Slovakia

2006/2007 &
since 2010

480 DQ

92 %

439 PQ

Bulgaria

Since 2008

769 DQ

46 %

354 PQ

Romania

Since 2008

1,037 DQ

56 %

576 PQ

Year	Men	Women	Men	Women	Men	Women	Men	Women
2006	20%	22%	99%	100%				
2007	17%	9%	100%	100%				
2008					74%	86%	88%	88%
2009					52%	42%	81%	73%
2010	37%	7%	58%	64%	51%	44%	16%	18%
2011	24%	4%	88%	88%	20%	19%	27%	37%
	MSM	FSW	MSM	FSW	MSM	FSW	MSM	FSW
	35%	12,7%	96%	90%	57%	82%	100%	43%



Number of (positive) tests and trends

Data from monthly questionnaires
Dataset: 3.11.2011



Number of (positive) tests by STI and country

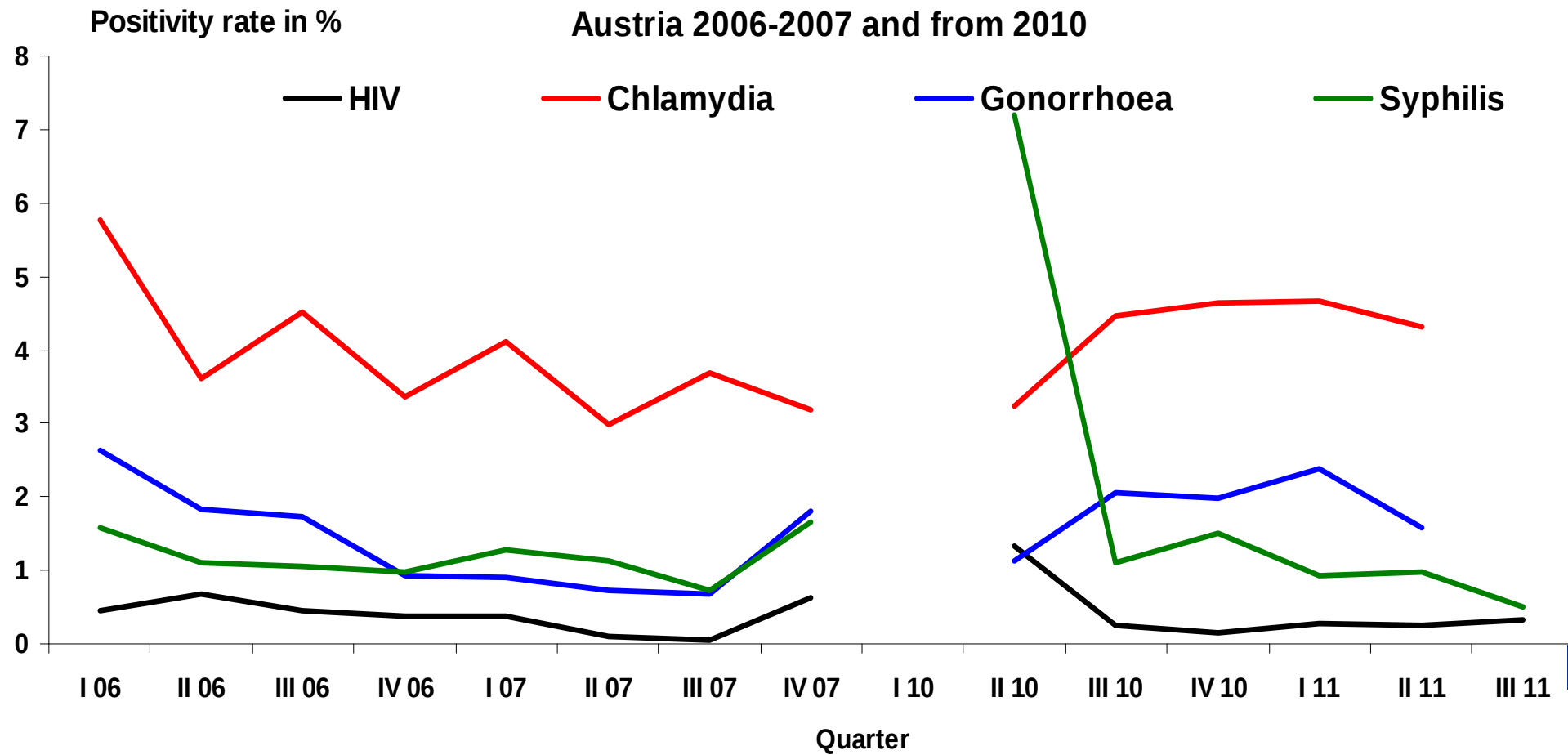


	Country	Number of tests	%	Number of positive tests	%	Positivity rate in %
HIV						
	AT	44045	64	154	43	0,35
	BG	18858	28	67	19	0,36
	RO	3425	5	63	17	1,84
	SK	2196	3	77	21	3,51
	Total	68524	100	361	100	0,53
Chlamydia						
	AT	65883	89	2666	77	4,05
	BG	6502	9	612	18	9,41
	RO	687	1	121	3	17,61
	SK	728	1	76	2	10,44
	Total	73800	100	3475	100	4,71
Gonorrhoea						
	AT	72924	84	1075	66	1,47
	BG	11788	14	410	25	3,48
	RO	1457	2	114	7	7,82
	SK	456	1	41	3	8,99
	Total	86625	100	1640	100	1,89
Syphilis						
	AT	33265	26	404	12	1,21
	BG	89396	69	1761	52	1,97
	RO	6701	5	896	27	13,37
	SK	699	1	298	9	42,63
	Total	130061	100	3359	100	2,58

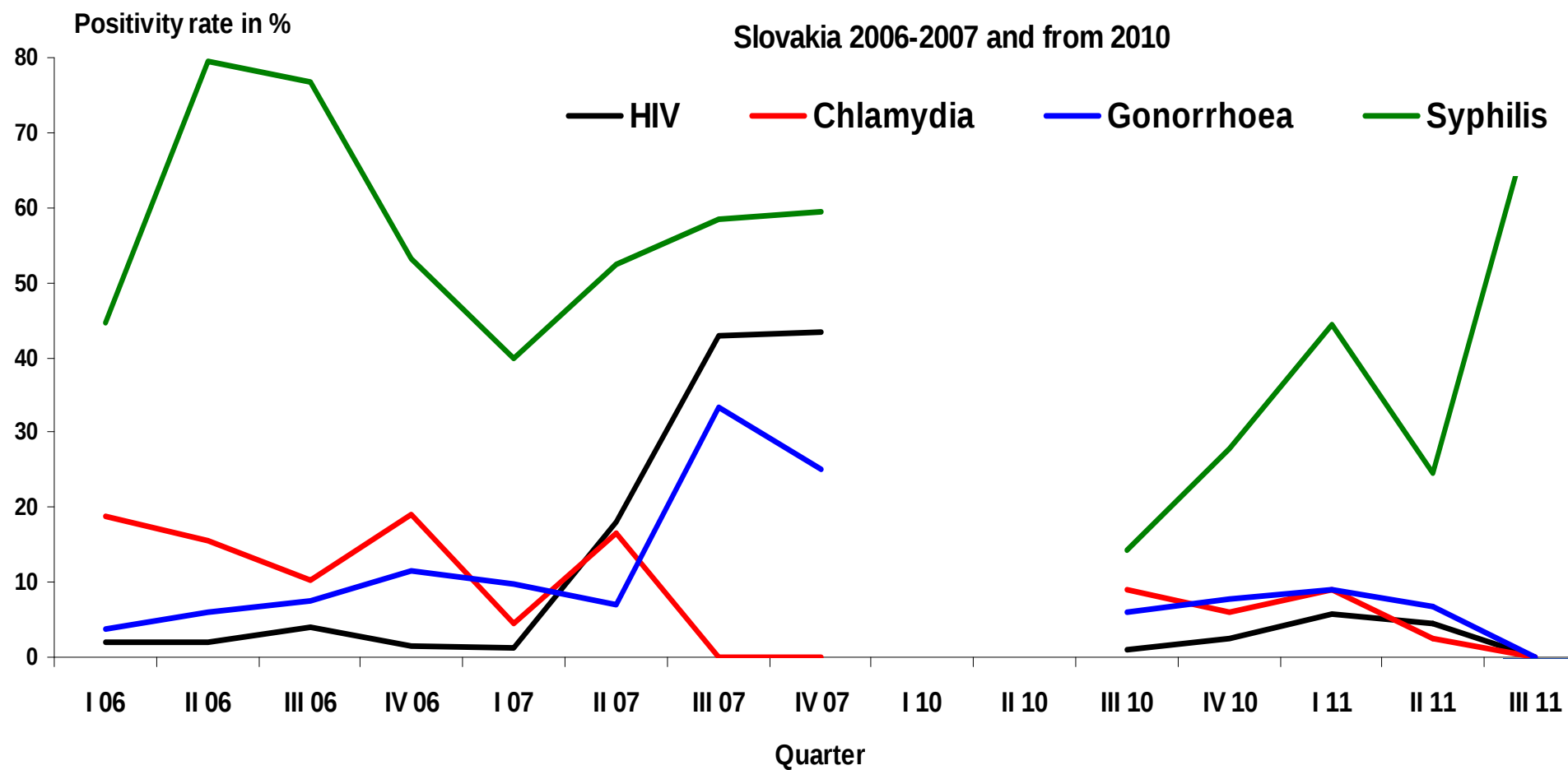




Trends Austria

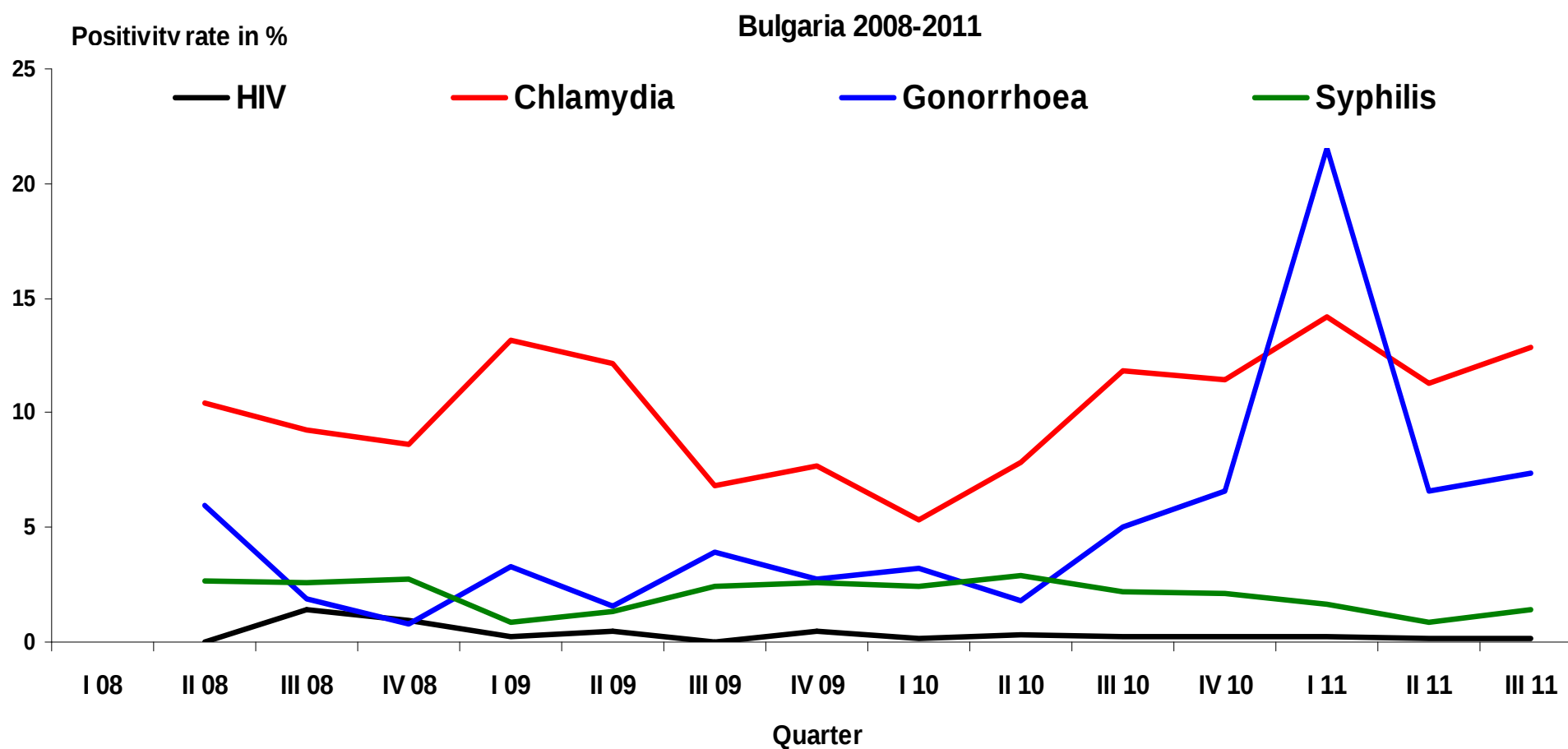


Trends Slovakia



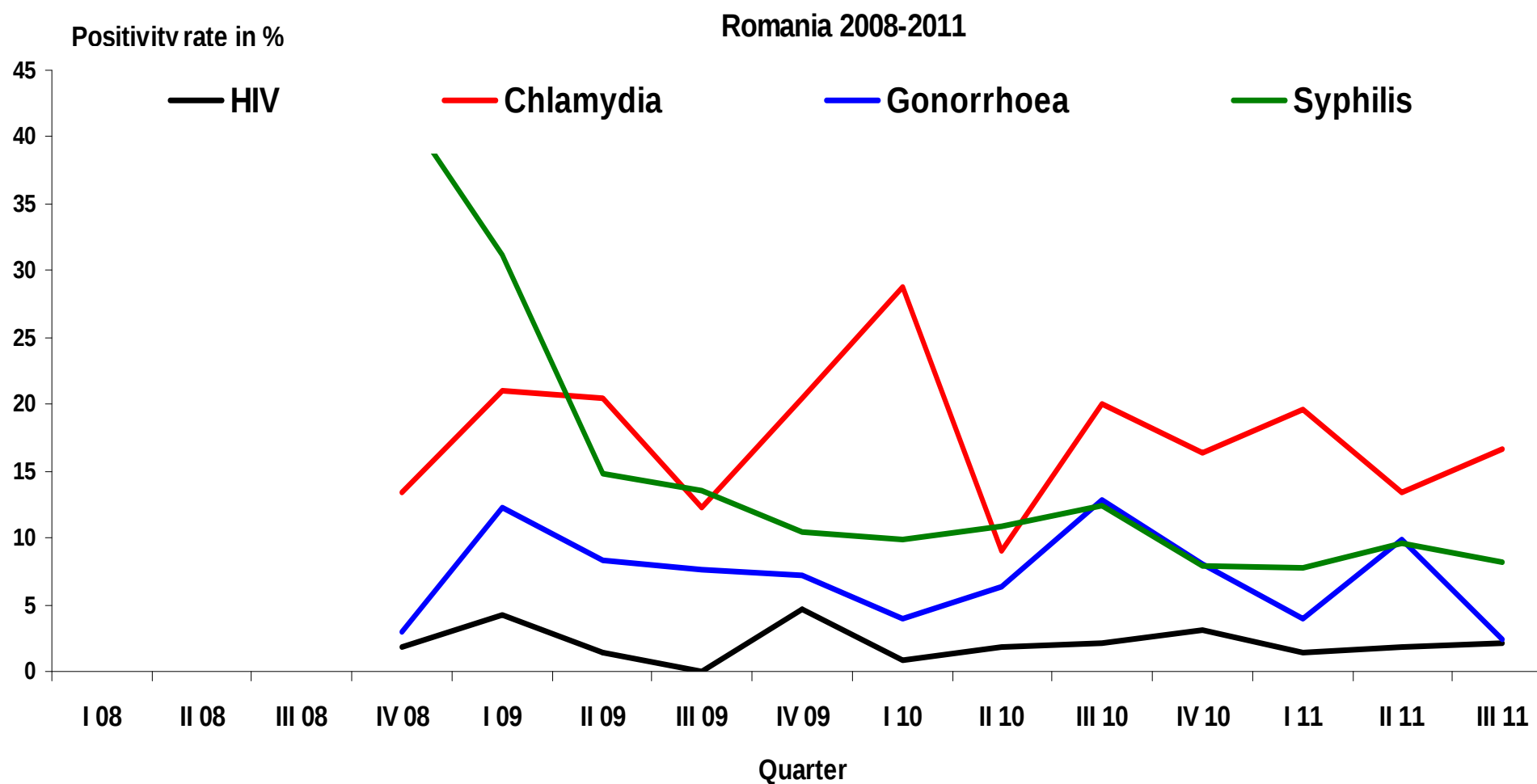


Trends Bulgaria





Trends Romania





Characteristics of patients with STIs

Data from diagnosis and patient
questionnaires

Dataset: 3.11.2011



Demographics of STI-patients

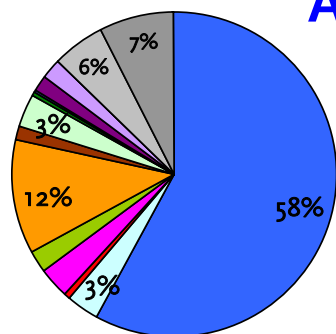


	Austria		Slovakia		Bulgaria		Romania	
Gender	Men n=980	Women n=1759	Men n=308	Women n=171	Men n=521	Women n=239	Men n=621	Women n=416
Percent	36%	64%	64%	36%	69%	31%	60%	40%
Median age (Years)	30	25	34	31	30	28	30	29
MSM	21%	---	31%	---	17%	---	4%	---
SW	5%	71%	8%	23%	2%	5%	2%	8%
i.v.-drug users	0.3%	2.1%	5%	16%	4%	2%	0.2%	3.4%
History of STI	18%	31%	21%	9%	26%	21%	20%	26%

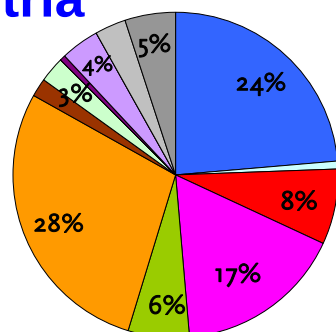


Origin of STI patients

Austria



Men



Women

Austria

W-Europe

Slovakia

Romania

Bulgaria

Central-Europe

E-Europe

Sub-Sahara Africa

Middle East /N-Africa

N-America

Latin America/ Caribbean

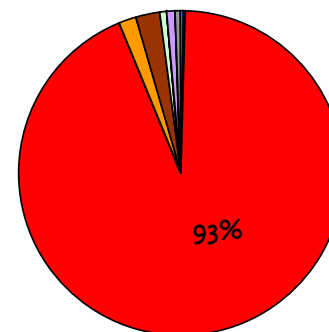
Asia

Australia

Other

no answer/unknown/don't know

Slovakia

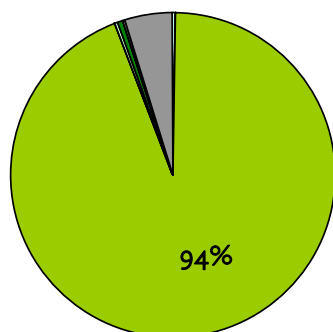


Men

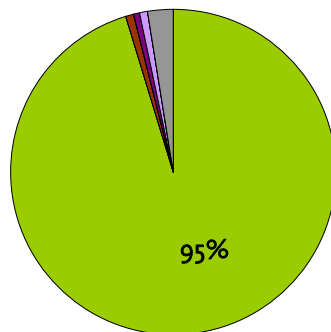


Women

Bulgaria

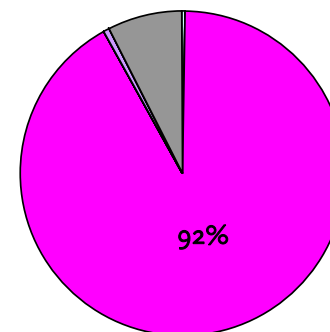


Men

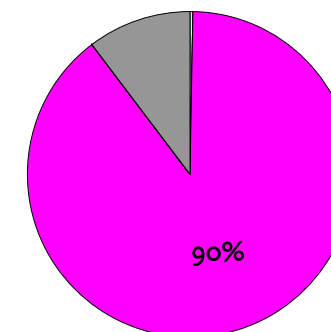


Women

Romania



Men

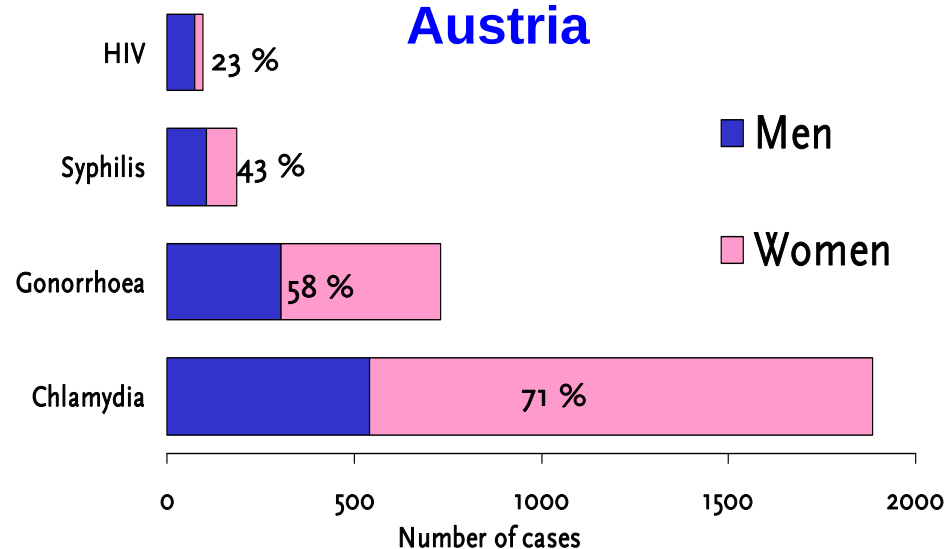


Women

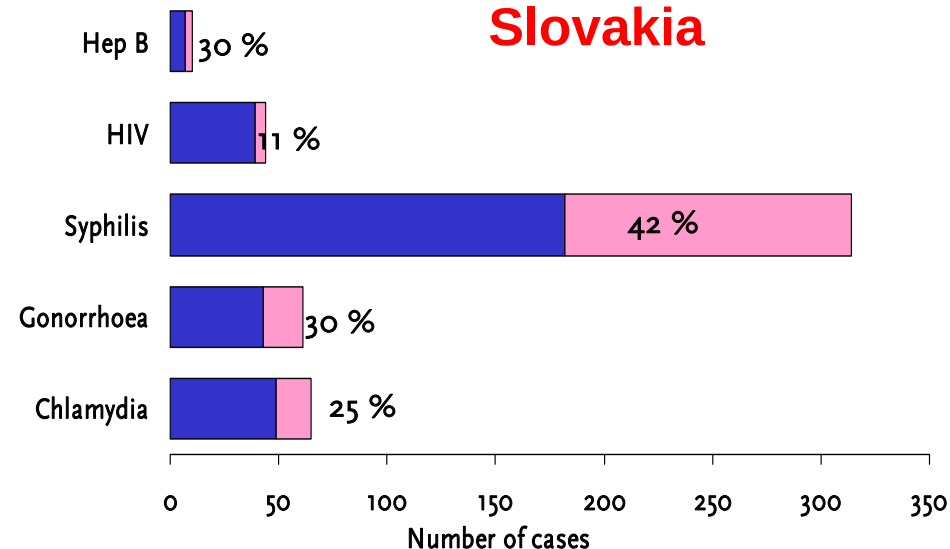


Sex-distribution of STIs

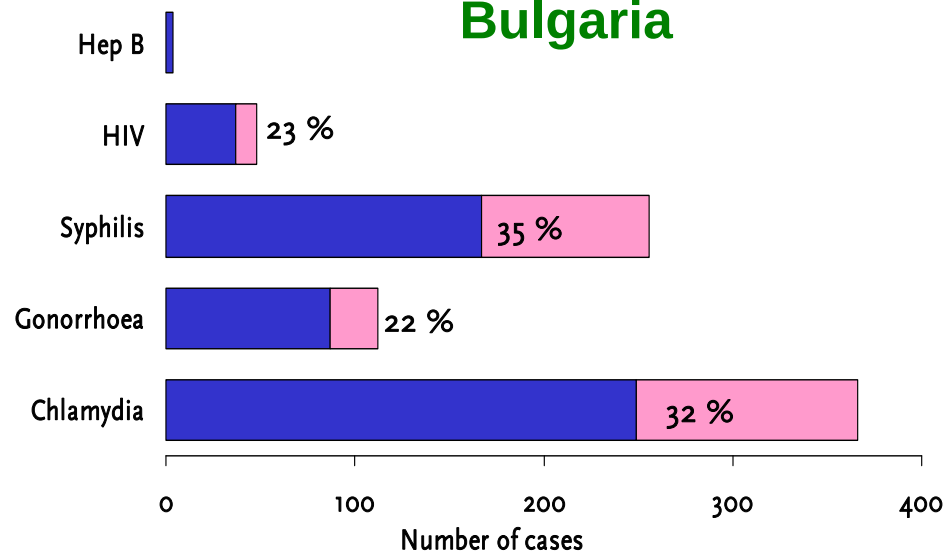
Austria



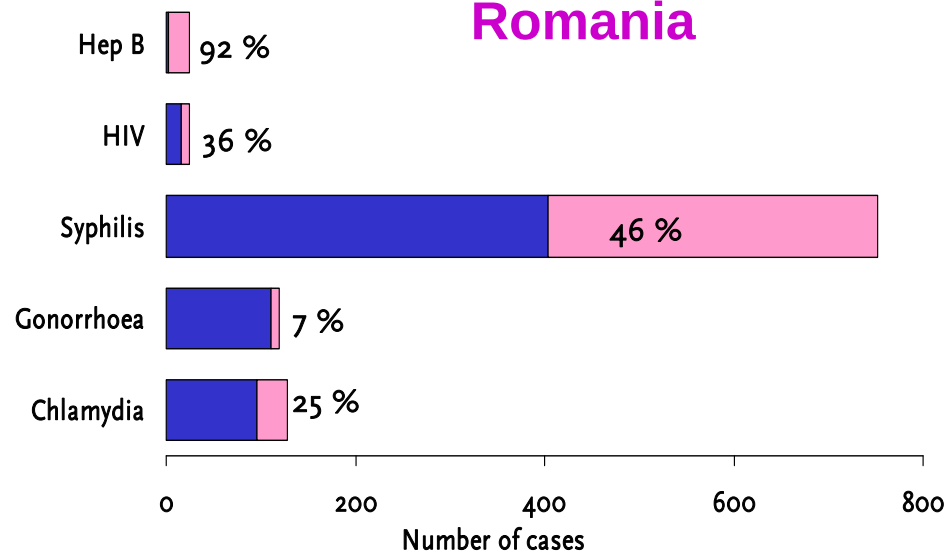
Slovakia



Bulgaria

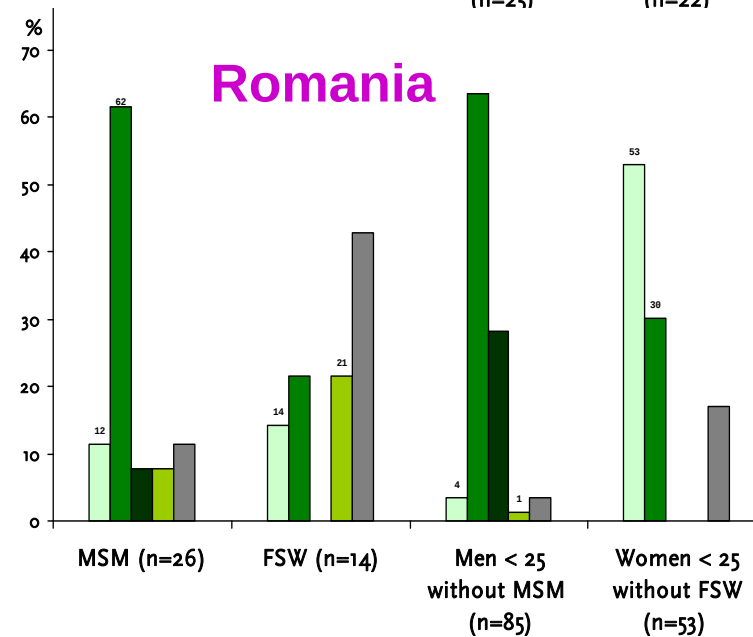
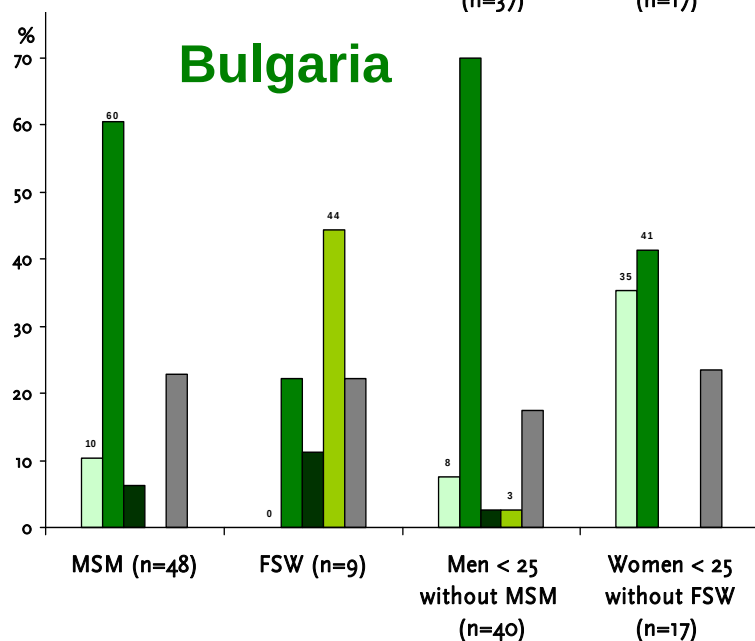
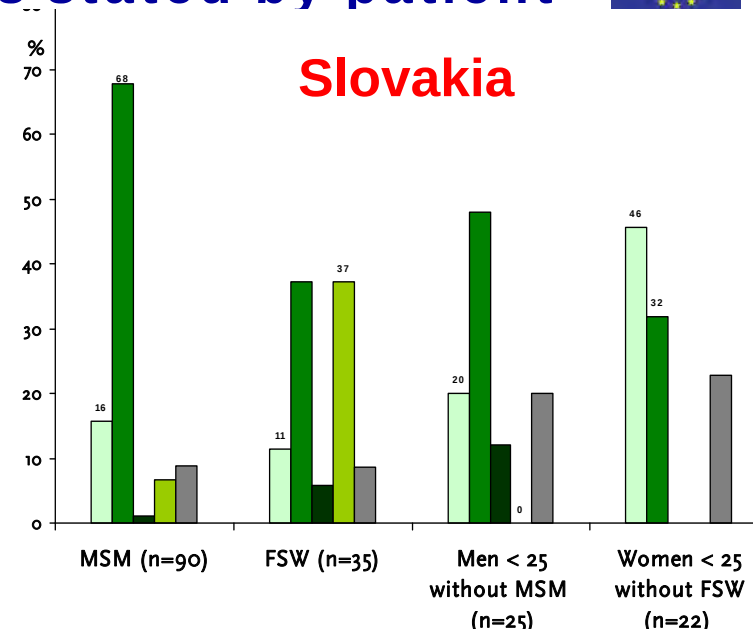
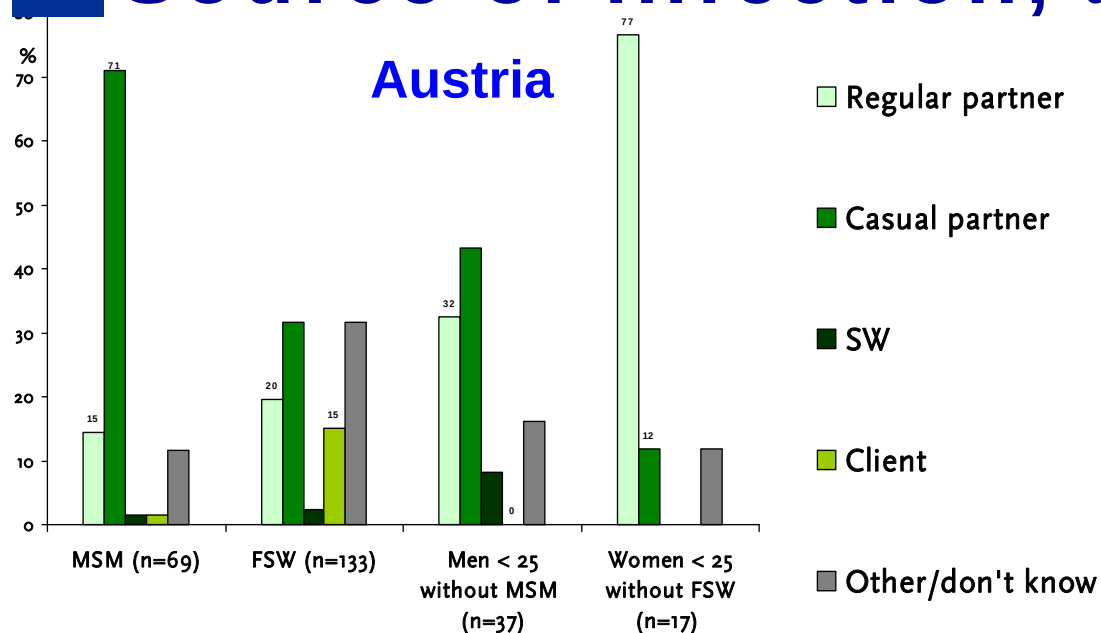


Romania





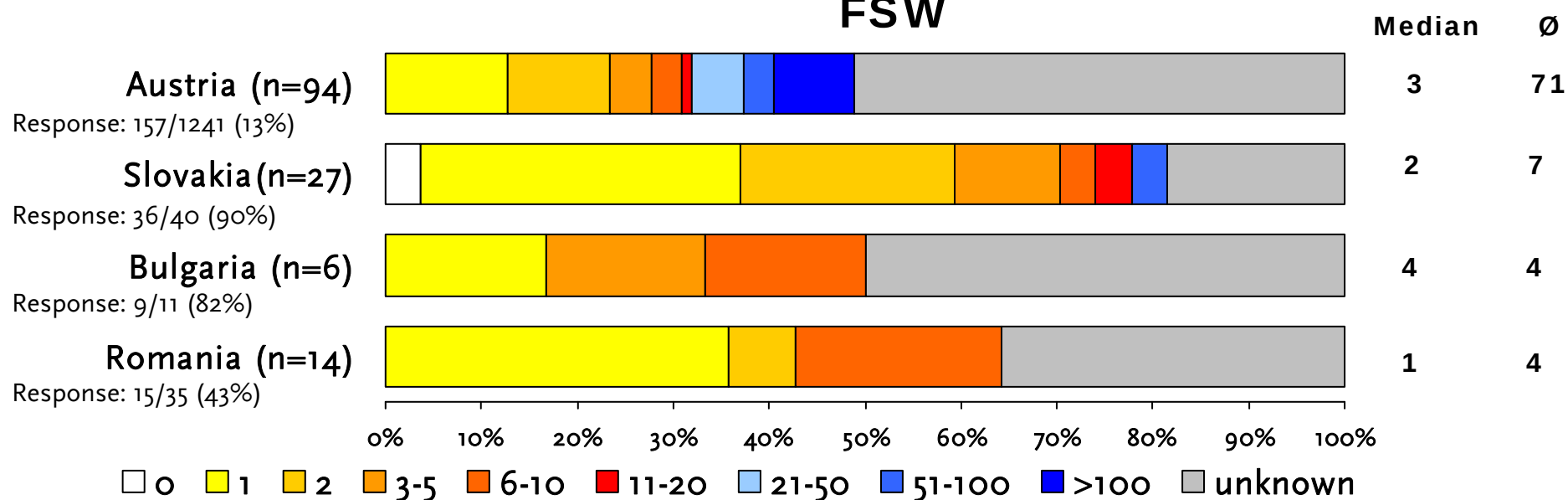
Source of infection, as stated by patient



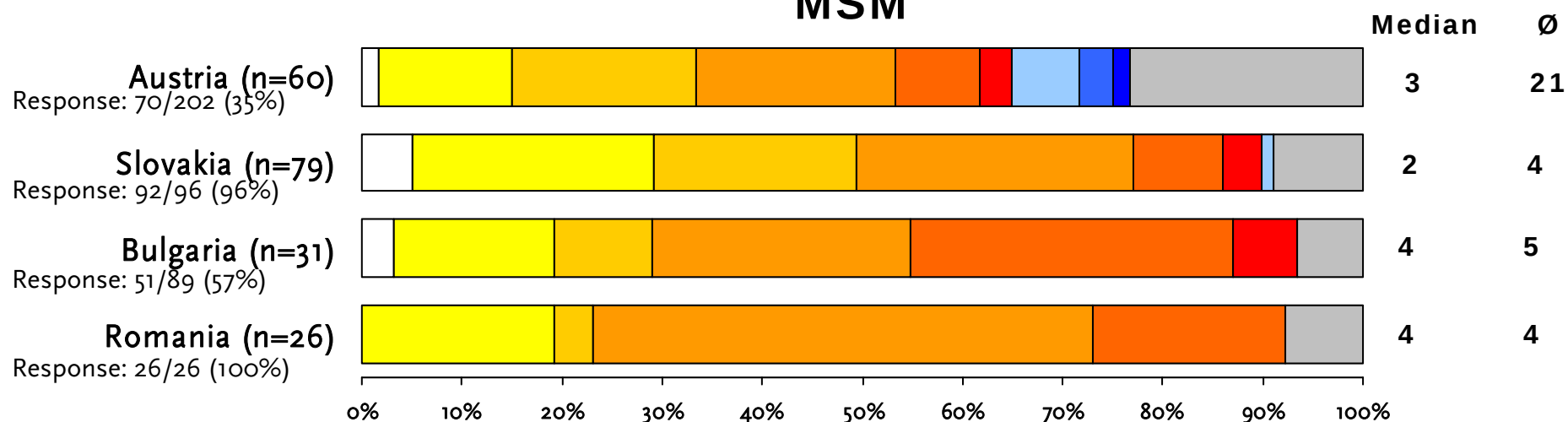
Number of partners in the last 6 months



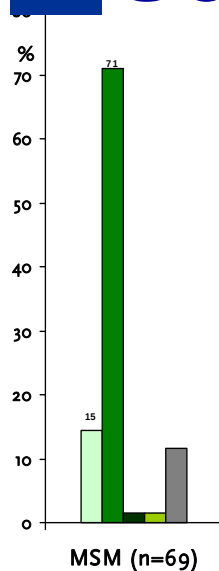
FSW



MSM

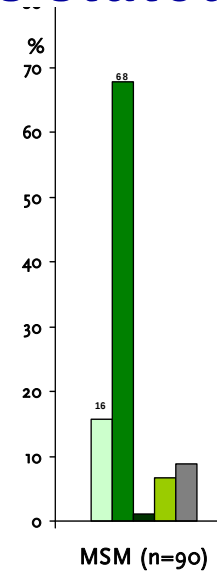


Source of infection, as stated by MSM

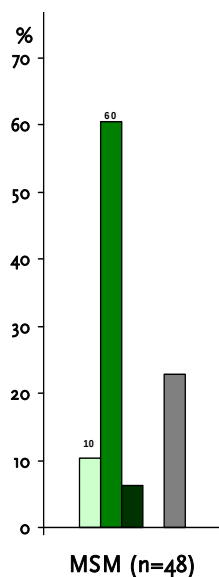


Austria

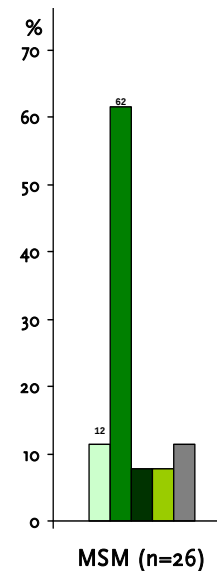
Regular partner
Casual partner
SW
Client
Other/don't know



Slovakia



Bulgaria

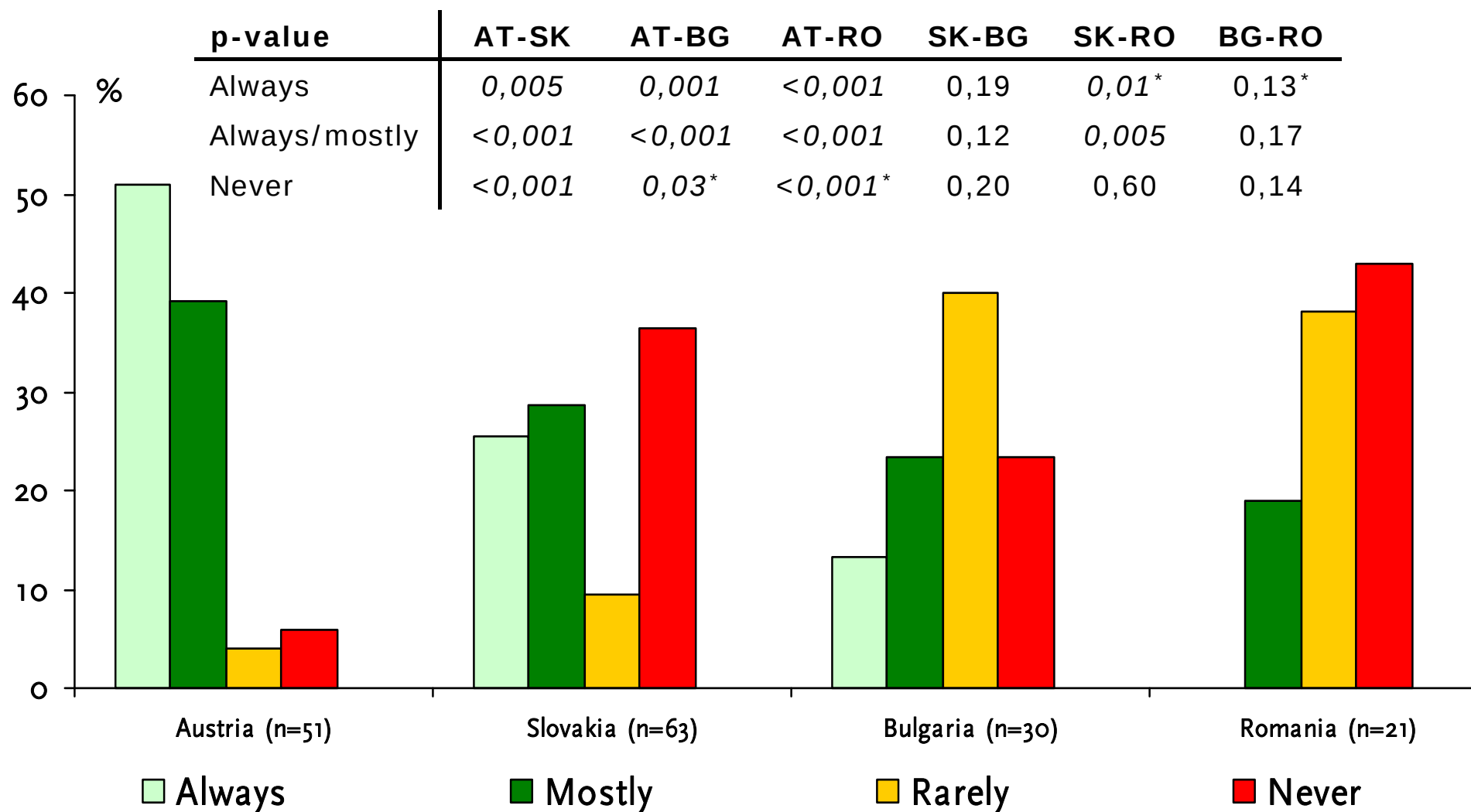


Romania



Condom usage within last 6 months with casual partners - MSM

Chi²-test; *Fisher's exact test



MSM with no answer, „don't know“ or „did not have sex with this partner“ excluded



Summary of results

- High numbers of syphilis tests
- Highest positivity rate of chlamydia overall
- In patients with STI
 - Frequent history of STIs
 - Low numbers of FSW among all women in BG + RO
 - High numbers of migrants in AT
 - High numbers of syphilis in SK, BG + RO
 - High numbers of chlamydia in AT
 - Casual partner most frequent source of infection in MSM
 - Inconsistent condom use with these partners!





Limitations

- Comparability of data
 - Different sentinel sites
 - Access to certain groups (Roma community, African community)
 - Healthcare access for certain groups
 - Disclosure
 - Stigma
 - Legal structures
- Timeliness of data
- Interpretation of trends (n.b. small numbers)
- Patient response rates
 - Non-responder analysis
- STI data provided by healthcare provider
 - Only first diagnosis to be reported
- Case definitions but unsure if diagnostic accordingly always possible
- Only data from infected persons
- Data not generalisable
- Acceptability of NGOs

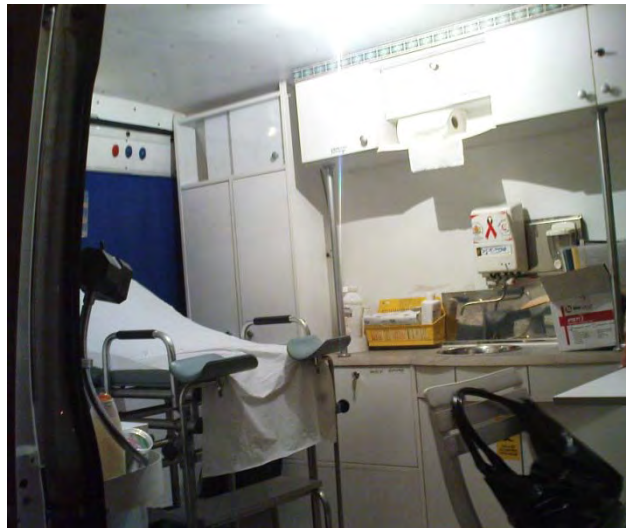




Benefits

- Sentinel-Surveillance
 - Additional to routine surveillance
 - Risky behaviour
 - Vulnerable groups
 - Easy and cheap methodology
 - Formulate hypothesis → targeted prevention
- Importance of second generation surveillance (IBBS: integrated biological and behavioural surveillance) as indicator for possible HIV epidemic
- Network!





SPI

AHW

ARAS

HESED

PRIMA

Thank you!

Viviane Bremer, Klaus Jansen,
Osamah Hamouda, Andrea Sailer

All participating institutions

All patients



This presentation arises from the project
BORDERNETwork which has received funding
from the European Union, in the framework of
the Health Programme.

HaarK@rki.de

