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ROBERT KOCH INSTITUT



BORDER|NET *work*

First results of the Sentinel-Surveillance in Bulgaria and Romania

Department for Infectious Disease Epidemiology

HIV/AIDS and STI Unit

Klaus Jansen,

SPI Forschung

Elfriede Steffan, Tzvetina Arsova Netzelmann

SPI-Forschung gGmbH

Background

Problems concerning STI surveillance and treatment

- Big changes and challenges in health systems
 - Differences in quality of health care
- Rising number of HIV-infections and other STI assumed
- Prostitution
- Forced prostitution?
- Migration?
- Specific target groups?

Aims of the Sentinel within Bordernetwork

- Establishing a network for HIV and STI-surveillance
- Surveillance of frequency and geographic distribution of STIs in the surveyed regions
- (Rapid) identification of trends and outbreaks
- Identification of specific vulnerable groups
- Identification of risk behaviours
- Acquiring of needs of interventions
- Documentation of success of interventions

Methods (1)

- Sentinel-Surveillance-System
- Population
 - all patients with HIV/STD in participating regions, that attend a sentinel site
- Indicators
 - **newly** diagnosed infections (also asymptomatic) with
 - Chlamydia trachomatis
 - HIV
 - Neisseria gonorrhoea
 - Treponema pallidum

Methods (2)

Questionnaires:

- 1. Basic Questionnaire:** per institution, filled in once at start of study
- 2. Monthly questionnaire:** per institution
- 3. Diagnosis questionnaire:** per patient, anonymous, filled in by physician
- 4. Patient Questionnaire:** per patient, anonymous, filled in voluntarily by patient

Methods (3)

Analysis: frequency of each STI by

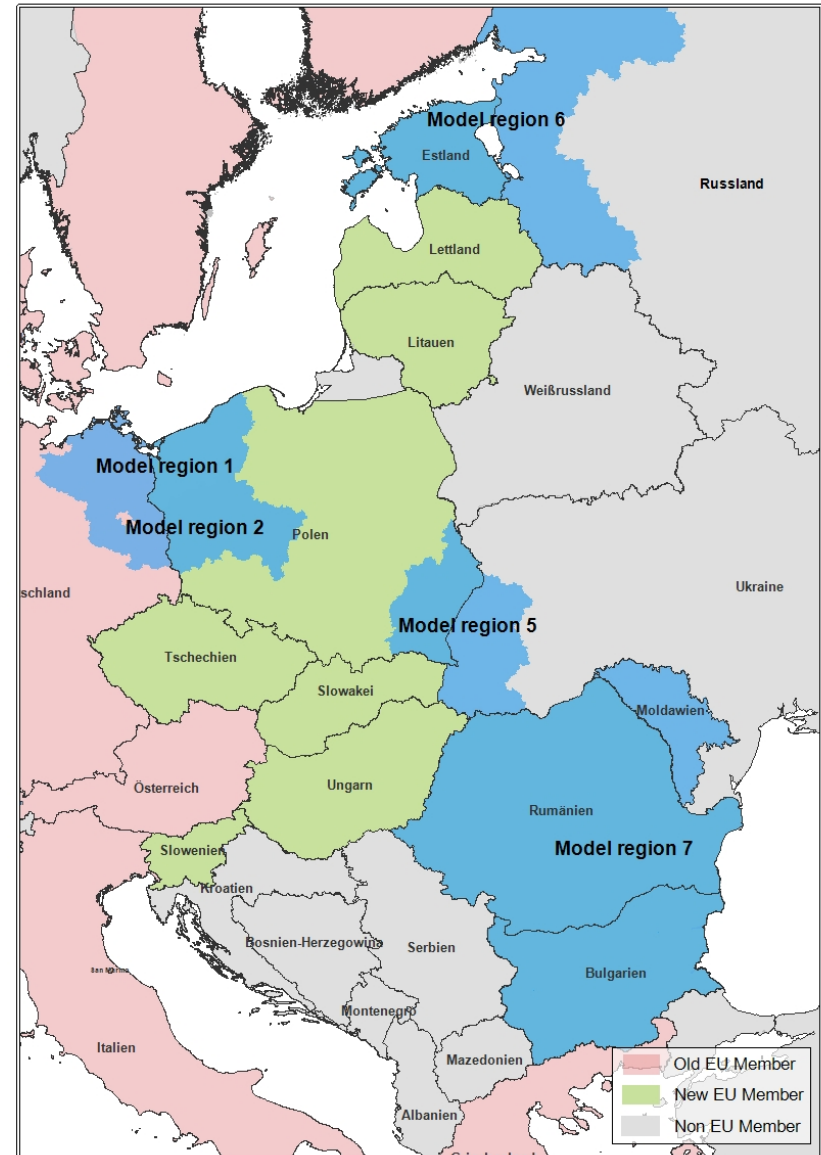
- Region
- Potential mode of transmission
- Risk behaviour
- Demographic details
- Trends in time:
 - Changes in frequency of transmission
 - Changes in risk behaviour

First Results of the Sentinel-Surveillance in Bulgaria and Romania

State of data: 20.2.2009

Current composition of Sentinel

- 33 Sentinels
- Between 2 and 11 in each region
- Number and composition depends strongly on health care structures of countries
- 5 sentinels in Bulgaria and Romania each
- Start of data collection Fall 2008



Response Rate

Region	Monthly Qu.	Diagnosis Qu.	Patient Qu.
BG	14	107	74
RO	13	126	111
Total	27	233	175

Overview on diagnosis data:

Bulgaria and Romania, monthly questionnaire

- Overall: 15,434 examinations of STI in 9,321 persons

	examina- tions	thereof positive (%)	diagnosis qu.	patients qu.
Chlamydia	930	81 (8.7)	41	40
Gonorrhoea	1,859	12 (0.6)	13	13
Hepatitis B	19	0 (0)	0	0
HIV	2,207	32 (1.4)	19	13
Syphilis	10,419	337 (3.2)	146	120

- Proportion of men in all examined persons: 48.2%

Data of Bulgaria

State of data: 20.2.2009

Characteristic of sites: Bulgaria

basis questionnaire

- 5 sentinel sites in Sofia, Varna, Plovdiv:
 - Specialised HIV- and STI-consultation in every site, mainly daily
 - Size of STI-sector mainly between 50-100 patients/month
 - Size of HIV-sector differed between 20-75 patients/month
 - Diagnostics performed mainly by sites' own laboratory (4/5) and/or hospital/university (3/5)
 - STI consultation anonymous in all sites, free of cost in three sites
 - HIV consultation anonymous and free of cost in all sites

Characteristic of sites: Bulgaria

basis questionnaire

Proportions of risk of transmission in sites

Men*		Women*	
Homo/bi	10,6%	Sex workers	4,6%
IVDU	17,4%	IVDU	15,6%
Hetero	86,0%	Hetero	91,8%
other	2,0%	other	6,7%

* multiple answers possible

Overview on diagnosis data:

Bulgaria, monthly questionnaire

- Overall: examinations of STI in 8,486 persons

	examina- tions	thereof positive (%)	diagnosis qu.	patients qu.
Chlamydia	848	70 (8.2)	30	30
Gonorrhoea	1,790	10 (0.6)	11	11
Hepatitis B	19	0 (0)	0	0
HIV	1,678	22 (1.3)	9	8
Syphilis	10,207	233 (2.3)	43	26

- Proportion of men in all examined persons: 50,1%

Characteristic of sites: Bulgaria

basis questionnaire

STI-clientele

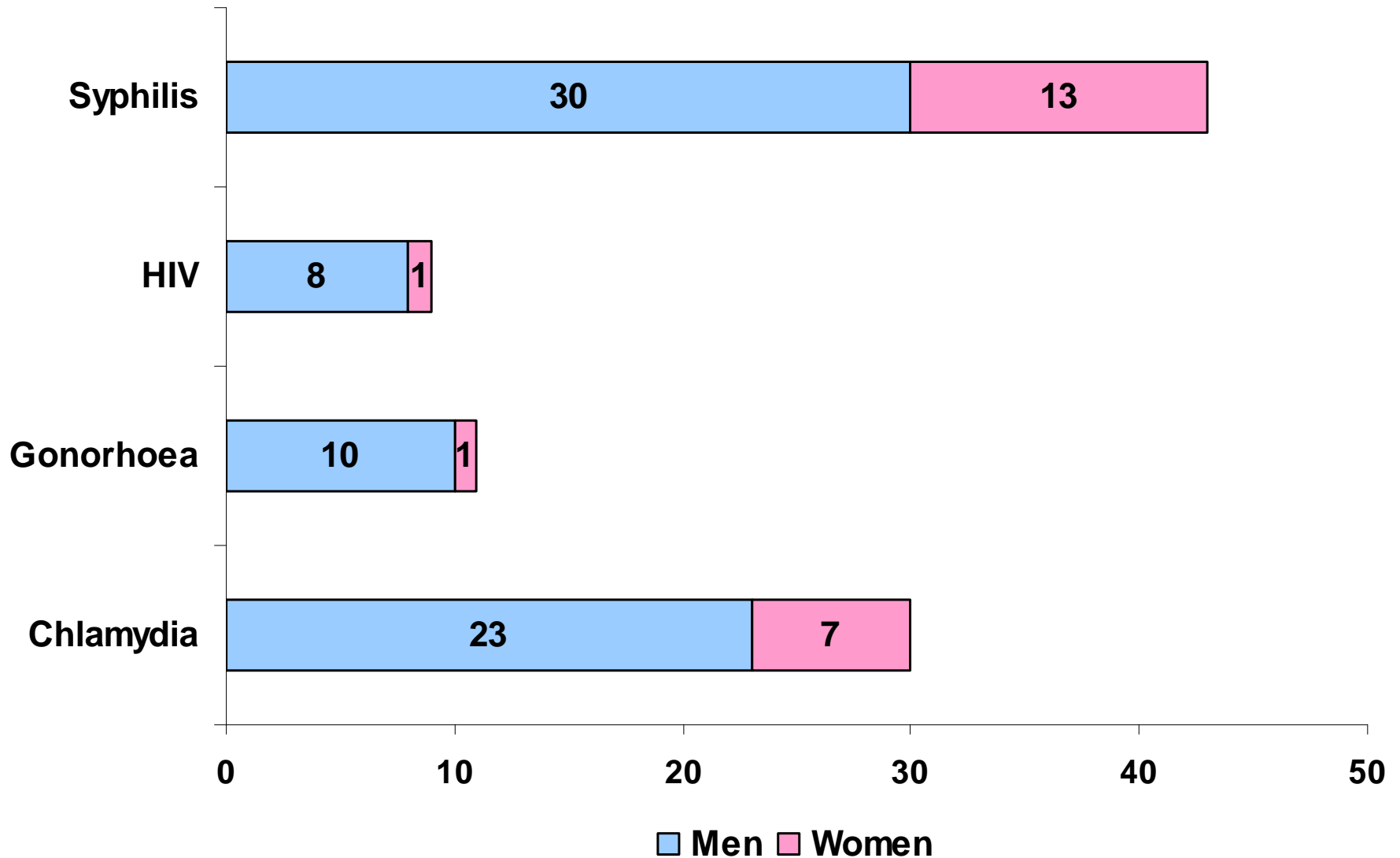
- Mean proportion of men in STI-clientele: 54%
- Mean proportion of migrants (ROMA??) in STI-clientele: 3%

HIV-clientele

- Mean proportion of men in HIV-clientele: 65%
- Mean proportion of migrants (ROMA??) in HIV-clientele: 54%

Number and sex distribution of STIs: Bulgaria

diagnosis questionnaire



Characteristics of STI : Bulgaria

diagnosis questionnaire

Sex distribution

- Proportion of men in all positive diagnoses: 76%
- Proportion of men in all examinations : 50%

Age

- Mean age in positive diagnosed men: 31 years
- Mean age in positive diagnosed women: 28 years

Migration, STI-Anamnesis and Drug use, Bulgaria

diagnosis questionnaire

	Men N=68	Women N=25
Proportion (%)	76.3	23.7
Other origin than country of diagnosis (=migrants, %)	0	4.0
Working abroad	30.9	2.9*
STI in anamnesis (%)	38.2	16.0*
Drug use (%)	7.4	0

* $p < 0.05$

STI -Anamnesis, Bulgaria

diagnosis questionnaire

Infection with:

Anamnesis	Chlam n=30	GO n=11	HIV n=9	Syph n=43
Chlamydia	4	0	0	2
Gonorrhoea	3	1	0	3
Hepatitis B	1	0	0	3
HIV	1	0	---	2
Syphilis	1	2	0	2
Tuberculosis	0	0	0	0

Potential mode of transmission, Bulgaria

diagnosis questionnaire

%	Men N=68	Women N=25
MSM	14.7	---
Heterosex. Contacts	57.4	88.0
Contact with sex worker	10.3	0
Commercial sex work	1.5	12.0
Not known/no answer	10.3	0

Conspicuities in modes of transmission of each STI, Bulgaria

diagnosis questionnaire

mode of transmission (%)	total n=94	Chlam n=30	GO n=11	HIV n=9	Syph n=43
MSM	10.6	3.3	9.1	22.2	20.9
Heterosex. Contacts	64.9	80.0	72.7	11.1	58.1
Contact with sex worker	7.4	3.3	9.1	44.5	7.0
Commercial sex work	4.3	3.3	0	22.2	4.7
Not known/no answer	12.8	10.0	9.1	0	9.3

Way of transmission, Bulgaria

patient questionnaire

Way of transmission (%)	Men N=35	Women N=37
Regular partner	8.6	27.0
Casual partner	57.1	13.5
By sex worker	5.7	0
By suitor	0	5.4
Not known/no answer	28.6	54.1
Drugs at presumed time of infection	25.7	8.1

Condom use with regular partner, Bulgaria

patient questionnaire

Condom use (%)	Men N=35	Women n=37
Always	8.3	0
Sometimes/often	2.9	19.9
Never	37.1	32.4
No sex	11.4	8.2
Not known/no answer	37.1	40.5

Condom use with casual sex partner, Bulgaria

patient questionnaire

	Men N=35	Women N=37
Condom use (%)		
Always	8.6	0
Sometimes/often	31.4	13.5
Never	25.7	8.1
No sex	5.7	8.1
Not known/no answer	28.6	70.3

Hetero: 80.0%

Sociodemographics, Bulgaria

patient questionnaire

Sociodemographics (%)	Men N=35	Women N=37
Work abroad last 3 years	8.6	27.8
Complete professional education	78.6	71.4
Migrated	0	0
Good language skills	95.8	100

Data of Romania

State of data: 20.2.2009

Characteristic of sites: Romania

basis questionnaire

- 5 sentinel sites in Brasov, Bucharest, Constanta:
 - In 4/5 sites specialised STI-consultation, in 3/5 specialised HIV-consultation, mainly daily
 - Size of STI-sector mainly between 1-25 patients/month
 - Size of HIV-sector differed between 1-100 patients/month
 - Diagnostics performed differently by all kinds of laboratories
 - STI- and HIV-consultation anonymous in one site (Brasov)
 - STI- and HIV-consultation free of cost in 3 resp. 4 sites

Characteristic of sites: Romania

basis questionnaire

Proportions of risk of transmission in sites

Men*		Women*	
Homo/bi	18,3%	Sex workers	23,3%
IVDU	1%	IVDU	0,5%
Hetero	88,8%	Hetero	84,8%
other	0%	other	35,0%

* multiple answers possible

Overview on diagnosis data:

Romania, monthly questionnaire

- Overall: 892 examinations of STI in 835 persons

	examina- tions	thereof positive (%)	diagnosis qu.	patients qu.
Chlamydia	82	11 (13.4)	11	10
Gonorrhoea	69	2 (2.9)	2	2
Hepatitis B	0	0 (0)	0	0
HIV	529	10 (1,9)	10	5
Syphilis	212	104 (49,1)	103	94

- Proportion of men in all examined persons: 29,1%

Characteristic of sites: Romania

basis questionnaire

STI-clientele

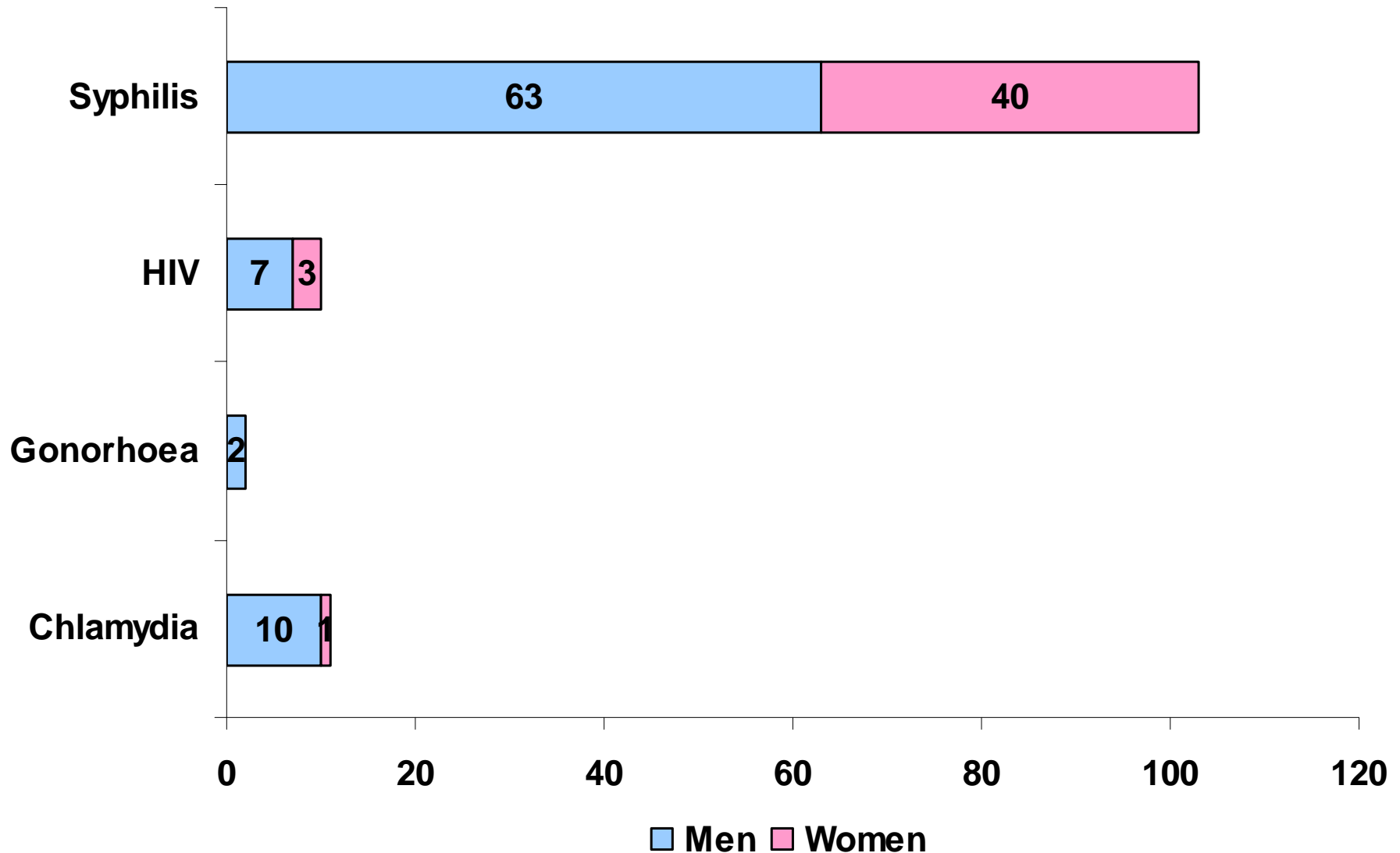
- Mean proportion of men in STI-clientele: 58%
- Mean proportion of migrants in STI-clientele: 1%

HIV-clientele

- Mean proportion of men in HIV-clientele: 53%
- Mean proportion of migrants in HIV-clientele: 1%

Number and sex distribution of STIs: Romania

diagnosis questionnaire



Characteristic of sites: Romania

basis questionnaire

Sex distribution

- Proportion of men in all positive diagnoses: 65%
- Proportion of men in all examinations : 29%

Age

- Mean age in positive diagnosed men: 31 years
- Mean age in positive diagnosed women: 30 years

Migration, STI-Anamnesis and Drug use, Romania

diagnosis questionnaire

	Men N=82	Women N=45
Proportion (%)	65.1	34.9
Other origin than country of diagnosis (=migrants, %)	0	0
Working abroad	17.1	13.3
STI in anamnesis (%)	12.1	8.9
Drug use (%)	1.2	2.2

STI -Anamnesis, Romania

diagnosis questionnaire

Infection with:

Anamnesis	Chlam n=11	GO n=2	HIV n=10	Syph n=103
Chlamydia	1	0	0	0
Gonorrhoea	2	0	0	7
Hepatitis B	0	0	0	2
HIV	0	0	---	0
Syphilis	0	0	0	2
Tuberculosis	0	0	0	0

Potential mode of transmission, Romania

diagnosis questionnaire

%	Men N=82	Women N=45
MSM	3.7	---
Heterosex. Contacts	67.1	93.3
Contact with sex worker	20.7	0
Commercial sex work	0	4.5
Not known/no answer	8.5	2.2

Conspicuities in modes of transmission of each STI, Romania

diagnosis questionnaire

mode of transmission (%)	total n=127	Chlam n=11	GO n=2	HIV n=10	Syph n=103
MSM	2.4	0	0	10	1.9
Heterosex. Contacts	76.4	100	50	20	79.6
Contact with sex worker	13.4	0	50	10	14.6
Commercial sex work	1.6	0	0	0	1.9
Not known/no answer	6.3	0	0	60	1.9

MSM?

Way of transmission, Romania

patient questionnaire

Way of transmission (%)	Men N=72	Women N=37
Regular partner	13.9	54.1
Casual partner	47.2	24.3
By sex worker	23.6	0
By suitor	1.4	0
Not known/no answer	13.9	21.6
Drugs at presumed time of infection	27.8	2.7

Condom use with regular partner, Romania

patient questionnaire

Condom use (%)	Men N=72	Women N=37
Always	2.8	0
Sometimes/often	1.4	2.7
Never	55.6	75.7
No sex	25.0	10.8
Not known/no answer	15.2	10.8

Condom use with casual sex partner, Romania

patient questionnaire

	Men N=72	Women N=37
Condom use (%)		
Always	0	0
Sometimes/often	27.8	8.2
Never	25.0	13.5
No sex	18.1	45.9
Not known/no answer	29.1	32.4

Contact to sex worker: 22.2%

Hetero: 66.7%

Sociodemographics, Romania

patient questionnaire

Sociodemographics (%)	Men N=72	Women N=37
Work abroad last 3 years	15.5	17.1
Complete professional education	81.9	64.9
Migrated	0	0
Good language skills	97.1	89.2

Conclusions

Actual limitations

- Only preliminary data showed:
 - Till now, too less data over time to analyse trends
 - Caution: proportions can be different having a longer time of surveillance
 - Diagnosis questionnaires have to be completed in Bulgaria

Conclusion (1)

STI

- High impact of Syphilis in BG and RO
- High proportion of positive tests for Chlamydia, due to method?
- Very high proportion of positive diagnoses for syphilis in HIV in RO, why?

Sex

- High impact of STI in men (equal proportion in testing, distinct higher proportion in positive diagnoses)
- Higher prevalence of previous STI in men, especially in BG
- Less condom use with casual partners in men than in women

Conclusion (2)

Risk of transmission

- High impact of heterosexual contacts for transmission of STI
- Special situation for HIV: higher impact of MSM and commercial sex work in BG
- Contact to sex worker additional important condition in men in RO
- Casual partners play an important role for men, regular partners for women
- No special data regarding Roma in BG

Migration

- No obvious impact of migration on epidemiological situation of STI in BG and RO

Benefit of epidemiological data

- Sentinel Surveillance starts to work!
- 4 most important STIs are reported regularly
- After process of building up description of epidemiological situation possible
- Diagnostic data potentiates epidemiological description of participating regions
- Data of patients provide important information about risk behaviour and risk groups
- Very good basis to frame and implement specific prevention campaigns trough:
 - Sentinel Surveillance
 - KAB-Surveys (e.g. Heterosexuals, young adults, sex workers, MSM)
- Intense exchange and collaboration of scientists, preventionists and politicians



Important basis for health policies and prevention

Important needs

- Further improvement of quality of data
 - Collection of as much diagnosis questionnaires as possible
 - Improvement of data regarding risk of transmission
- Standardisation and improvement of diagnostic methods for Chlamydia

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Questions to be discussed

- How is risk of transmission estimated?
- How is diagnostic of Chlamydia performed?
- Why STIs mainly in Men?
- Big Difference between monthly Questionnaire and diagnose questionnaire??

Questions

- Relation to other VCT services?
 - Areas
 - Access
 - Offers
- Connection to the group of sex work and Roma
 - Included in the Data?
 - Identifying the groups: Migrants? Mobile working populations?
- How can we collect information on ethnic backgrounds?
- Do we see a bias in access to the services?
 - Relation from tested to infected Persons very high
 - Percentage of infected men very high