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**BORDER|NET** *work*

# **First results of the Sentinel-Surveillance in Bulgaria and Romania**

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# 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

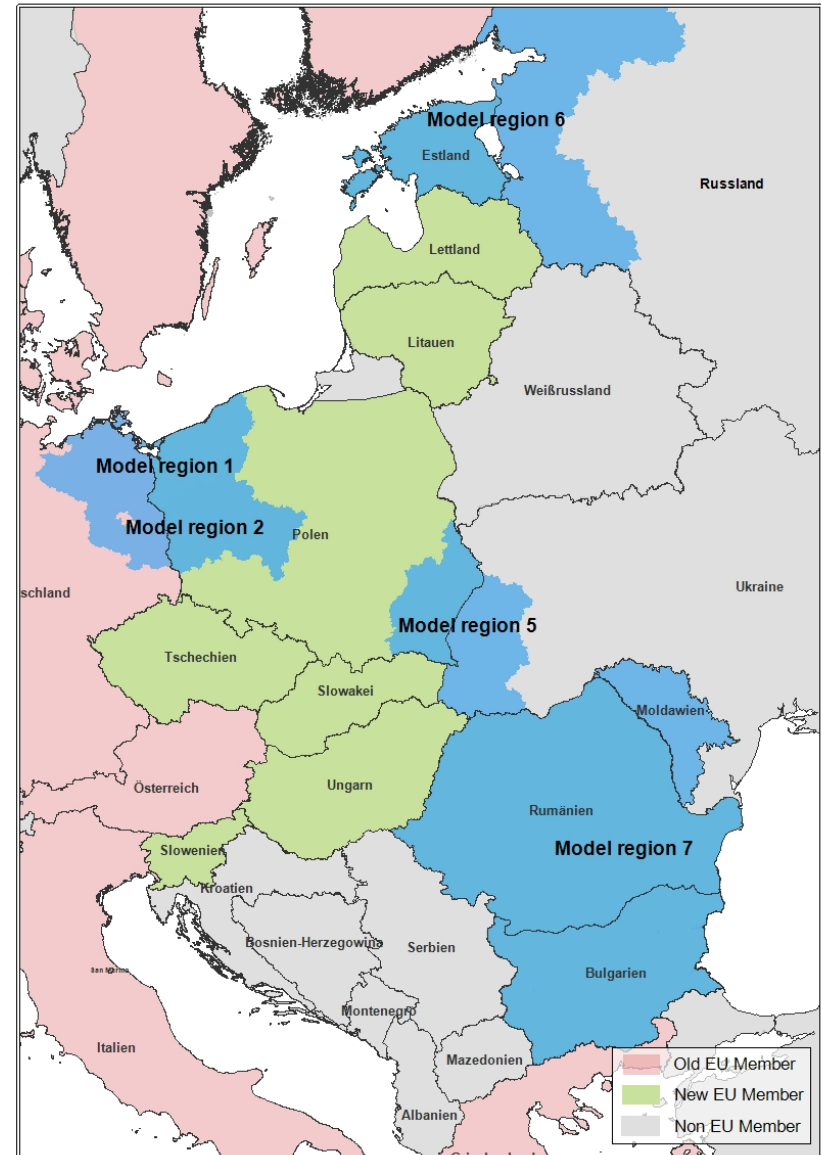
- Region
- Potential mode of transmission
- Risk behaviour
- Demographic details
- Trends in time:
  - Changes in frequency of transmission
  - Changes in risk behaviour

# **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
<b>Total</b>	<b>27</b>	<b>233</b>	<b>175</b>

# 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

<b>Men*</b>		<b>Women*</b>	
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*

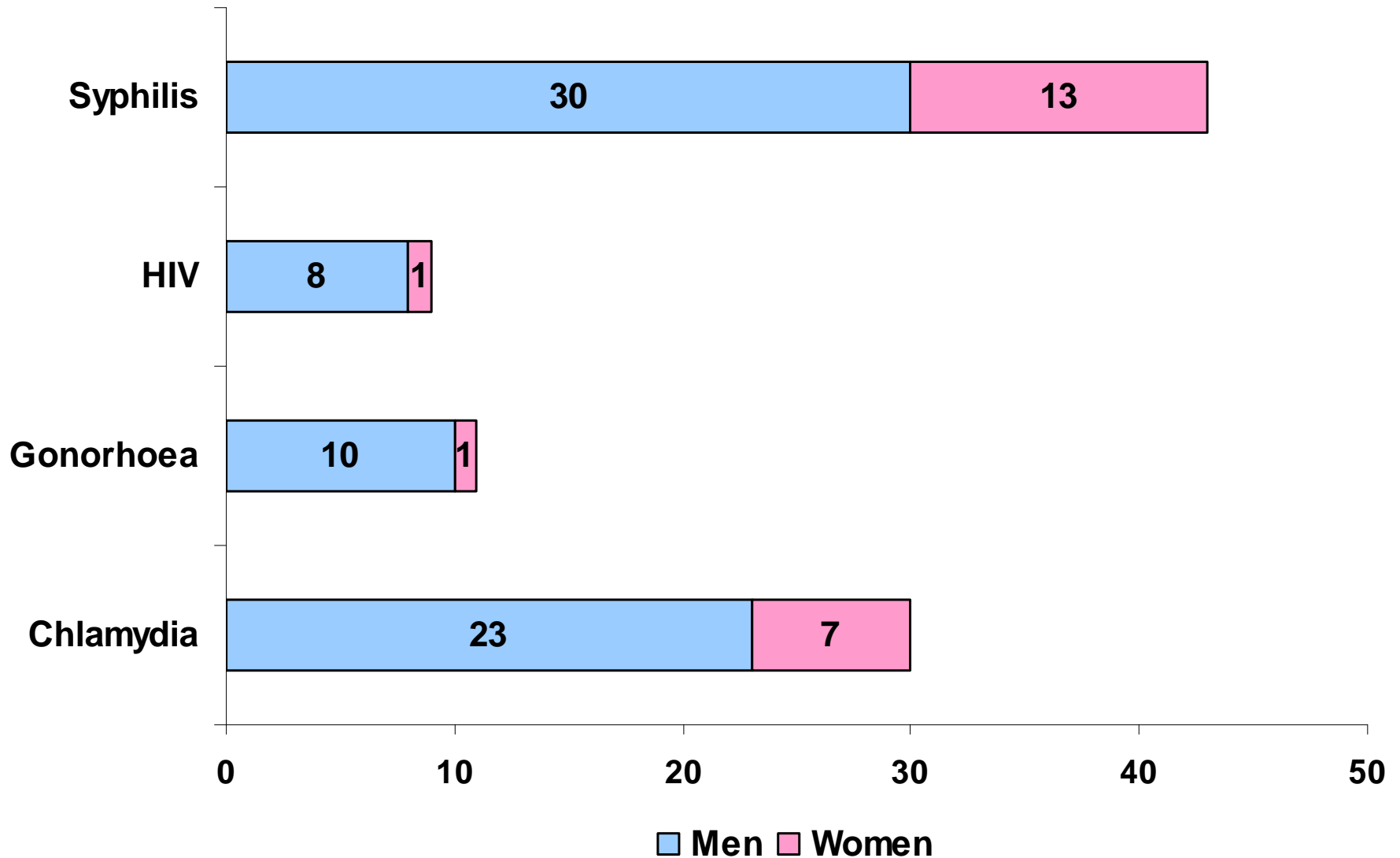
- Mean proportion of men in STI-clientele: 54%
- Mean proportion of migrants (ROMA??) in STI-clientele: 3%

## *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:

<b>Anamnesis</b>	<b>Chlam</b> n=30	<b>GO</b> n=11	<b>HIV</b> n=9	<b>Syph</b> 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
<b>Never</b>	<b>37.1</b>	<b>32.4</b>
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
<b>Never</b>	<b>25.7</b>	<b>8.1</b>
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

<b>Men*</b>		<b>Women*</b>	
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*

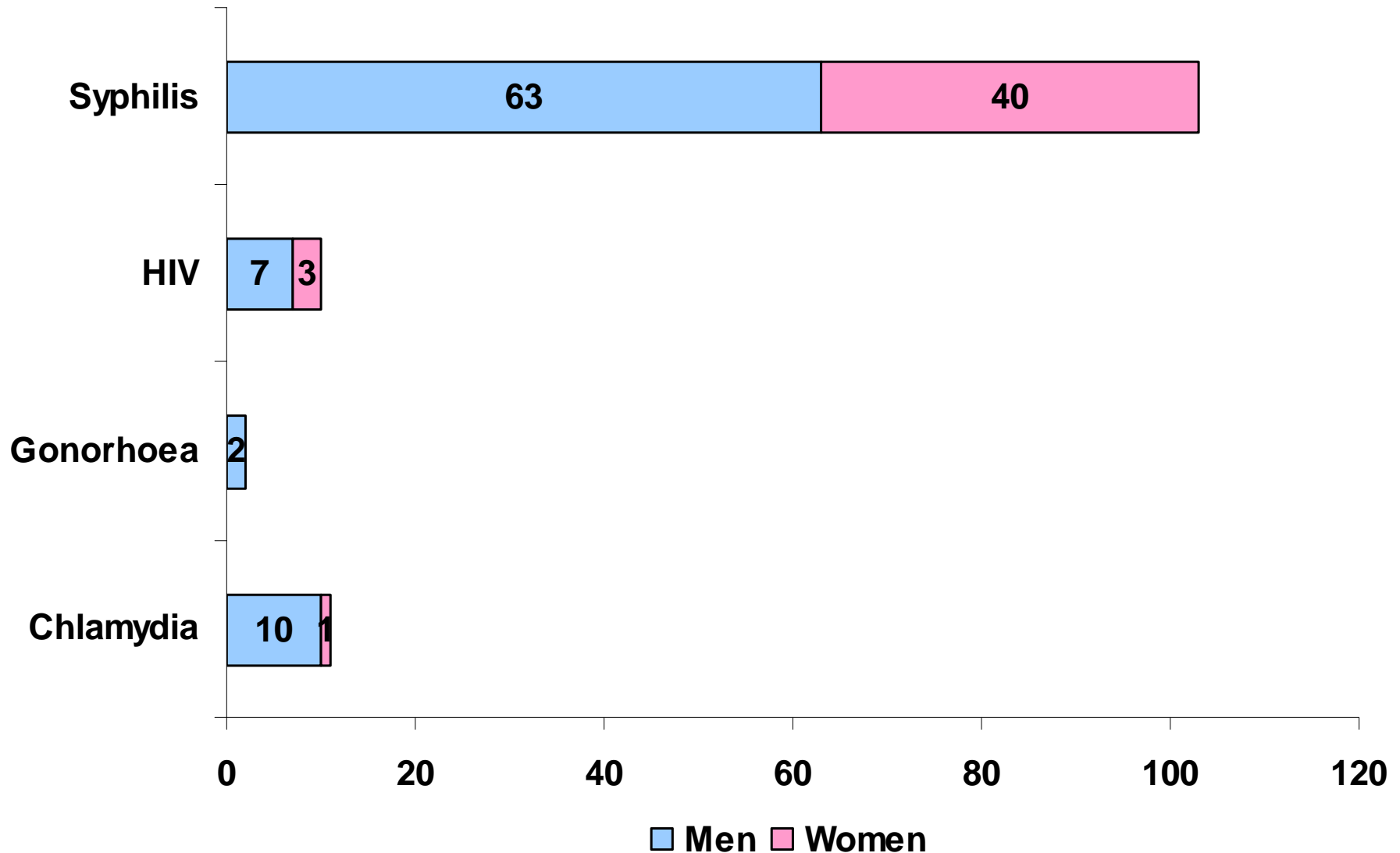
- Mean proportion of men in STI-clientele: 58%
- Mean proportion of migrants in STI-clientele: 1%

## *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

	<b>Men</b> N=82	<b>Women</b> 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:

<b>Anamnesis</b>	<b>Chlam</b> n=11	<b>GO</b> n=2	<b>HIV</b> n=10	<b>Syph</b> 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
<b>Never</b>	<b>55.6</b>	<b>75.7</b>
No sex	25.0	10.8
Not known/no answer	15.2	10.8

# Condom use with casual sex partner, Romania

patient questionnaire

Condom use (%)	Men N=72	Women N=37
Always	0	0
Sometimes/often	27.8	8.2
<b>Never</b>	<b>25.0</b>	<b>13.5</b>
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

# Acknowledgements

- All patients
- All sentinel sites and their staff
- Partners within Bordernet*work*
  - All regional centres
  - SPI Research gGmbH
- RKI
  - Viviane Bremer
  - Andreas Gilsdorf
  - Alexandra Hofmann
  - Bernd Reinhardt

# 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