

*Sławomir Majewski, Iwona Rudnicka*

## SEXUALLY TRANSMITTED DISEASES IN POLAND IN 2011

Department of Dermatology and Venereology  
Medical University in Warsaw

### ABSTRACT

**THE AIM OF THE STUDY** was to assess epidemiological situation of sexually transmitted diseases in Poland in 2011.

**MATERIALS AND METHODS.** Analysis of the data on prevalence of syphilis, gonorrhoea, non-gonococcal urethritis, genital herpes and genital warts was gathered from yearly reports MZ-14 from several districts.

**RESULTS.** In 2011 there were 841 reported cases of all types of syphilis, which was higher by 24 than in 2010. Within the reported cases, 554 cases were of early syphilis, 274 cases of late syphilis, and 11 cases of congenital syphilis. Syphilis during pregnancy and childbirth was reported in 13 women. The highest incidence of syphilis in 2011, similarly to previous years was in Mazowieckie district (4.7/100,000) and the lowest in Swietokrzyskie district (0.2/100,000), the average in a whole country accounted to 2.2/100,000.

In 2011 there were 351 cases of gonorrhoea reported, which was higher by 77 cases than reported in the previous year. The highest incidence was reported in Mazowieckie voivodeship. Non-gonococcal urethritis –NGU was identified in 484 persons; this was less by 294 cases than reported in the previous year. The highest incidence rate was reported in Dolnośląskie voivodeship 9.6/100,000. There were 428 cases of genital warts reported which was less by 174 cases than reported in 2010. The highest incidence rate was reported in Mazowieckie voivodeship, Warmińsko- Mazurskie voivodeship and Kujawsko-Pomorskie voivodeship. As in previous years the most unfavourable epidemiological situation in terms of all registered sexually transmitted diseases was in Mazowieckie voivodeship.

**CONCLUSION.** In 2011 among sexually transmitted diseases NGU and genital warts were reported in lower numbers than in previous year. In the same time numbers of reported cases of gonorrhoea and syphilis increased. There is a continued decrease in the number of serological tests done for syphilis. Epidemiological indicators of treatment for gonorrhoea and syphilis are very low for number of years. The epidemiological data is probably incomplete due to the low sensitivity of reporting.

**Key words:** *sexually transmitted diseases, epidemiology, Poland, 2011*

### THE AIM OF THE STUDY

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### MATERIALS AND METHODS

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### RESULTS

Syphilis. In 2011 there were 841 reported cases of all types of syphilis, which was higher by 24 cases than reported in 2010. Incidence of syphilis was 2.2/ 100,000 in 2010 – 2.14 (Table 1.). There were reported 554 diagnosed cases of acquired early syphilis which was by 11 cases less than in 2010. Incidence in 2011 was 1.45 /100,000, in 2010- 1.49. Early symptomatic syphilis was reported in 394 cases. The incidence amounted to 1.03/ 100,000 similarly to 2010. In 2011 early latent syphilis was reported in 160 cases, compared to 179 cases in 2010. Incidence amounted to 0.42/100,000 and in 2010 -0.47/100,000.

In 2011, 274 patients were diagnosed with tertiary stage syphilis, compared to 227 cases in 2010. Incidence in 2011 amounted to 0.72/100,000, compared to 0.59 in 2010.

There were 11 cases of congenital syphilis reported (2 in each of the following voivodeship: Dolnośląskie, Łódzkie, and Śląskie; 1 in each of the following voivodeships: Lubelskie, Lubuskie, Kujawsko-Pomorskie, Małopolskie, and Warmińsko-Mazurskie). In the previous year 18 children were diagnosed with congenital syphilis. In 2011, 13 women were diagnosed with syphilis during pregnancy and childbirth, compared to 22 women diagnosed in 2010.

The incidence of instant (epidemiological) treatment for syphilis in so called contacts amounted to 0.04, and 0.08 in 2010 (Table 2).

**Gonorrhoea.** In 2011 there were 351 cases of gonorrhoea reported, 77 more than in 2010. Incidence amounted to 0.92/100,000, and fraction of instant treatment of gonorrhoea contacts amounted to 0.08 (Table 3).

**Non-gonococcal urethritis (NGU).** In number of people diagnosed with NGU was 484; 294 cases less than in 2010. Incidence amounted to 1.27 / 100,000, compared with 2.04 in 2010.

**Genital warts.** In 2011, number of genital warts cases reported was 428, about 174 cases fewer than in the previous year and 1/3 of cases diagnosed in 2009. Incidence amounted to 1.1 /100,000, compared to 1.58 in 2010.

**Genital herpes.** There were 173 genital herpes cases reported in 2011, about 34 more than in 2010. Incidence amounted to 0.45/ 100,000, compared to 0.36 in 2010

Epidemiological situation varied in individual voivodeships. The highest recorded incidence of syphilis, similarly to previous years was in Mazowieckie voivodeship – 4.7/ 100,000 (more than twice higher than the country average). Higher than average incidence was also in Łódzkie voivodeship – 4.4, Lubuskie voivodeship – 3.9, Warmińsko-Mazurskie – 2.3. The lowest incidence of syphilis was in the following voivodeships: Świętokrzyskie- 0.2, Podkarpackie- 0.4, and Podlaskie- 0.4.

The highest incidence of syphilis as in the the previous year was in Mazowieckie voivodeship- 3.5 (in 2010-3.13). Incidence higher than country average was also recorded in following voivodeships (higher than in the country) Łódzkie voivodeship- 3.3, Warmińsko-Mazurskie- 1.8, Wielkopolskie- 1.6, Zachodnio-Pomorskie- 1.5. In the same districts was also highest incidence of early stage symptomatic syphilis: Łódzkie- 1.58 (2.6× higher than the country average), Mazowieckie- 2.6/100,000. The most favourable epidemiological situation in terms of early stage syphilis and early stage symptomatic syphilis was in Podlaskie, Podkarpackie, Świętokrzyskie voivodeship, where there were no reported cases. Increase of reported cases of early

stage syphilis was in Lubuskie, Lubelskie, Łódzkie, Warmińsko-Mazurskie and Podkarpackie voivodeships. The number of cases of early latent syphilis compared to 2010 did not change in Mazowieckie, Śląskie, Wielkopolskie voivodeships. In Opolskie and Podlaskie districts there were no reported cases. In other voivodeships a decline was observed of early latent syphilis, the greatest in Kujawsko-Pomorskie voivodeship.

The highest incidence rate of tertiary stage syphilis was reported in following voivodeships: Lubuskie - 2.6 (3.6× higher than the country average), Małopolskie - 1.3, Mazowieckie - 1.2, Dolnośląskie - 1.1. Increase in the incidence of tertiary stage syphilis was reported in 6 voivodeships. In Podkarpackie voivodeship the epidemiological situation did not change, and in other voivodeships decrease in the incidence of tertiary stage syphilis was observed, the highest in Opolskie

The incidence of gonorrhoea was highest in the following voivodeships: Mazowieckie- 4.1 (4.6× higher than the country average), Kujawsko-Pomorskie - 1.4, Lubuskie - 1.1. In the remaining voivodeships the incidence of gonorrhoea, was lower than the country average. The most noticeable deterioration of the epidemiological situation was in the Małopolskie voivodeship. In Opolskie voivodeship there were no reported cases, as in previous year.

The highest incidence of NGU as in previous years was reported in Dolnośląskie voivodeship - 19.6. In Lubuskie and Kujawsko-Pomorskie voivodeships the incidence rate was higher than the country average. There were no reported cases in Lubelskie, Podlaskie, Świętokrzyskie, and Zachodnio-pomorskie voivodeships.

Genital warts incidence was higher than the country average in the following voivodeships: Mazowieckie – 4.9, Warmińsko-Mazurskie - 4.2, Kujawsko-Pomorskie - 2.9, and Lubuskie- 2.2. In 9 voivodeships there were no reported cases.

Genital herpes incidence was highest in the following voivodeships: Kujawsko-Pomorskie - 3.4, Mazowieckie- 1.3, and Warmińsko-Mazurskie 1.2. In the remaining 10 Voivodeships there were no reported cases of genital herpes.

In 2011, as in the previous years the most unfavourable epidemiological situation for all sexually transmitted diseases was in the Mazowieckie Voivodeship.

## CONCLUSION

There are still a decreasing number of syphilis serological tests carried out. In 2011 in the whole the sector of sexually transmitted diseases the number of blood samples tested was less than 100,000, which is 2% less than in the last decade. This has a direct impact

Table I. Number of cases and incidence per 100,000 population (by voivodeships) on congenital syphilis, early syphilis, early symptomatic syphilis in Poland in 2011

Voivodeships	SYPHILIS - all form /A50-A53/		CONGENITAL SYPHILIS /A50-A50.9/				EARLY SYPHILIS /A51.0-A51.9/				EARLY SYMPTOMATIC SYPHILIS /A51.0-A51.4/						
	2010	2011	per 100,000 popul.	under 1 y.o.		ALL		2010	2011	ratio 2011/2010	per 100,000 popul.	2010	2011	ratio 2011/2010	per 100,000 popul.	syphilis II okr. recur.	% syphilis recur. popul.
				2010	2011	2010	2011										
<b>POLAND</b>	<b>817</b>	<b>841</b>	<b>2,2</b>	<b>13</b>	<b>10</b>	<b>18</b>	<b>11</b>	<b>572</b>	<b>554</b>	<b>0,97</b>	<b>1,45</b>	<b>393</b>	<b>394</b>	<b>1,0</b>	<b>1,03</b>	<b>173</b>	<b>43,9</b>
1. DOLNOSŁĄSKIE	65	56	1,9	2	2	3	2	41	23	0,6	0,8	29	15	0,5	0,5	11	73,3
2. KUJAWSKO-POMORSKIE	51	32	1,5	3	1	3	1	38	29	0,8	1,4	32	28	0,9	1,4	2	7,1
3. LUBUSKIE	17	20	0,9	1	1	1	1	4	10	2,5	0,5	3	4	1,3	0,2	2	50,0
4. LUBUSKIE	12	39	3,9	2	1	2	1	5	12	2,4	1,2	3	9	3,0	0,9	1	11,1
5. ŁÓDZKIE	67	112	4,4	-	2	-	2	50	84	1,7	3,3	40	69	1,7	2,7	3	4,3
6. MAŁOPOLSKIE	128	66	1,9	-	1	3	1	87	21	0,2	0,6	50	9	0,2	0,3	-	-
7. MAZOWIECKIE	246	246	4,7	5	-	5	-	164	185	1,1	3,5	112	135	1,2	2,6	105	77,8
8. OPOLSKIE	22	10	0,9	-	-	-	-	7	8	1,1	0,8	1	8	8,0	0,8	-	-
9. PODKARPACKIE	5	8	0,4	-	-	-	-	3	6	2,0	0,3	3	3	1,0	0,1	-	-
10. PODLASKIE	19	5	0,4	-	-	-	-	11	-	-	-	11	-	-	-	-	-
11. POMORSKIE	-	26	1,2	-	-	-	-	-	20	-	0,9	-	15	-	0,7	9	60,0
12. ŚLĄSKIE	81	81	1,7	-	2	-	2	70	48	0,7	1,1	50	28	0,6	0,6	21	75,0
13. ŚWIĘTOKRZYSKIE	9	3	0,2	-	-	-	-	5	1	0,2	0,1	2	1	0,5	0,1	1	100,0
14. WARMINSKO-MAZURSKIE	12	33	2,3	-	-	1	1	7	26	3,7	1,8	4	21	5,3	1,5	6	28,6
15. WIELKOPOLSKIE	53	76	2,2	-	-	-	-	53	56	1,1	1,6	30	33	1,1	0,9	12	36,4
16. ZACHODNIO-POMORSKIE	30	26	1,5	-	-	-	-	27	25	0,9	1,5	23	16	0,7	0,9	-	-

Table II. Number of cases and incidence per 100,000 population (by voivodeships) on early syphilis, late syphilis and NGU in Poland in 2011

VOIVODESHIPS	EARLY LATENT SYPHILIS /A51.5-A51.9/		per 100,000 Popul.	rate 2011/2010	2010	2011	Prophyl. treat. / early latent syphilis	TARDA SYPHILIS /A52.0-A53/		per 100,000 popul.	rate 2011/2010	2010	2011	per 100,000 popul.	rate 2011/2010	2010	2011	per 100,000 popul.
	2010	2011						2010	2011									
	Early latent syph. sympt.		prophyl. treat.	2011	Prophyl. treat. / early latent syphilis	2010	2011	Prophyl. treat. / early latent syphilis	2010	2011								
<b>POLAND</b>	<b>179</b>	<b>160</b>	<b>0,89</b>	<b>0,42</b>	<b>0,4</b>	<b>14</b>	<b>0,04</b>	<b>0,08</b>	<b>227</b>	<b>274</b>	<b>1,21</b>	<b>778</b>	<b>484</b>	<b>0,72</b>	<b>1,21</b>	<b>778</b>	<b>484</b>	<b>1,27</b>
1. DOLNOSŁĄSKIE	12	8	0,7	0,3	0,5	-	-	0,14	21	31	1,5	557	276	1,1	1,5	557	276	9,6
2. KUJAWSKO-POMORSKIE	6	1	0,2	0,1	0,1	5	0,18	0,19	10	2	0,2	12	48	0,1	0,2	12	48	2,3
3. LUBUSKIE	1	6	6,0	0,3	1,5	-	-	1,33	12	9	0,8	1	-	0,4	0,8	1	-	-
4. LUBUSKIE	2	3	1,5	0,3	0,3	2	0,22	-	5	26	5,2	5	27	2,6	5,2	5	27	2,7
5. ŁÓDZKIE	10	15	1,5	0,6	0,2	-	-	0,08	17	26	1,5	17	31	1,0	1,5	25	31	1,2
6. MAŁOPOLSKIE	37	12	0,3	0,4	1,3	-	-	-	38	44	1,2	38	44	1,3	1,2	27	4	0,1
7. MAZOWIECKIE	52	50	1,0	0,9	0,4	4	0,03	-	77	61	0,8	77	61	1,2	0,8	50	49	0,9
8. OPOLSKIE	6	-	-	-	-	-	-	-	15	2	0,1	2	2	0,2	0,1	2	2	0,3
9. PODKARPACKIE	-	3	-	0,1	1,0	-	-	-	2	2	1,0	2	2	0,1	1,0	20	18	0,9
10. PODLASKIE	-	-	-	-	-	-	-	-	8	5	0,6	8	5	0,4	0,6	17	-	-
11. POMORSKIE	-	5	-	0,2	0,3	-	-	-	-	6	-	-	6	0,3	-	5	0,2	-
12. ŚLĄSKIE	20	20	1,0	0,4	0,7	-	-	0,08	11	31	2,8	11	31	0,7	2,8	21	3	0,1
13. ŚWIĘTOKRZYSKIE	3	-	-	-	-	-	-	2,00	4	2	0,5	4	2	0,2	0,5	5	-	-
14. WARMINSKO-MAZURSKIE	3	5	1,7	0,4	0,2	2	0,09	-	4	6	1,5	4	6	0,4	1,5	16	18	1,3
15. WIELKOPOLSKIE	23	23	1,0	0,7	0,7	1	0,03	-	-	20	-	-	20	0,6	-	10	2	0,1
16. ZACHODNIO-POMORSKIE	4	9	2,3	0,5	0,6	-	-	0,30	3	1	0,3	3	1	0,1	0,3	17	-	-

Table III. Gonorrhoea, condylomata acuminata and genital herpes in Poland in 2011. Number of cases and incidence per 100,000 population (by voivodeships).

VOIVODESHIPS	GONORRHOEA (A-54/)				HOSPITALIZATION				Condylomata acuminata					
	2010	2011	rate 2011/2010	per 100,000 popul.	2010 Prophyl. Treat. Gonorrh.	2011 Prophyl. treat. Gonorrh.	2011 Prophyl. treat. Gonorrh.	GONORRH.	2010	2011	per 100,000 popul.	2010	2011	per 100,000 popul.
	274	351	1,28	0,92	0,09	0,08	0,09	7	602	428	1,1	139	173	0,45
<b>POLAND</b>	274	351	1,28	0,92	0,09	0,08	0,09	7	602	428	1,1	139	173	0,45
1. DOLNOSŁĄSKIE	10	15	1,5	0,5	-	-	-	1	14	-	-	3	-	-
2. KUJAWSKO-POMORSKIE	33	30	0,9	1,4	0,09	0,26	-	-	3	61	2,9	-	70	3,4
3. LUBELSKIE	5	3	0,6	0,1	-	-	-	-	-	-	-	-	-	-
4. LUBUSKIE	6	11	1,8	1,1	-	-	-	-	-	22	2,2	-	7	0,7
5. ŁÓDZKIE	24	5	0,2	0,2	0,04	-	-	1	10	4	0,2	4	5	0,2
6. MAŁOPOLSKIE	7	16	2,3	0,5	-	-	-	-	73	4	0,1	12	4	0,1
7. MAZOWIECKIE	143	211	1,5	4,1	0,12	0,09	-	-	316	259	4,9	78	70	1,3
8. OPOLSKIE	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9. PODKARPACKIE	2	4	2,0	0,2	-	-	-	-	-	7	0,3	-	-	-
10. PODLASKIE	5	8	1,6	0,7	-	-	-	-	42	-	-	1	-	-
11. POMORSKIE	-	14	-	0,6	-	-	-	3	-	-	-	-	-	-
12. ŚLĄSKIE	11	14	1,3	0,3	0,18	-	-	1	78	-	-	12	-	-
13. ŚWIĘTOKRZYSKIE	12	3	0,3	0,2	-	-	-	-	5	-	-	3	-	-
14. WARMINSKO-MAZURSKIE	3	5	1,7	0,4	-	-	-	-	45	60	4,2	26	17	1,2
15. WIELKOPOLSKIE	9	10	1,1	0,3	0,11	-	-	1	12	11	0,3	-	-	-
16. ZACHODNIO-POMORSKIE	4	2	0,5	0,1	-	-	-	-	4	-	-	-	-	-

on the level of detection of early and late syphilis, which is diagnosed through the blood tests. Insufficient recognition of latent syphilis is also associated with limited screening for syphilis of blood donors and pregnant women. Furthermore not all doctors fulfil the obligation to report syphilis cases, which results in incomplete epidemiological data. Indicators of prophylactic treatment for syphilis and gonorrhoea are low for many years. Additionally patients don't disclose the identity of their sexual partners, as well as they don't inform their partners about the need to see a doctor.

Moreover the lack of resources to conduct prophylactic tests as well as to promote sexual education, low level of health awareness and easy access to sexual services has an adverse effect on epidemiological situation. State policy concerning the control of STD should take into account their social characteristics and provide funding for prophylactic testing and education. It is especially important as there is a steady increase in the number of sexually transmitted HIV infected persons in Poland and the fact that the "classic" STD symptoms increase the risk of HIV infection.

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#### Address for correspondence:

Prof.dr hab. Sławomir Majewski

Dr n.med. Iwona Rudnicka

Department of Dermatology and Venereology

Medical University in Warsaw

82 a Koszykowa, 02-008 Warsaw, Poland

e-mail:irudnicka@op.pl