

LONG-TERM TRENDS OF THE INCIDENCE OF SYPHILIS AND GONORRHOEA IN THE SLOVAK REPUBLIC DURING 1947—1994, WITH SPECIAL REGARD TO YOUNG AGE GROUPS

HEGYI E., ¹HEGYI V., ¹DANILLA T.

DLHODOBÉ TRENDY INCIDENCIE SYFILISU A KVAPAVKY V SLOVENSKEJ REPUBLIKE ZA ROKY 1947—1994 SO ZVLÁŠTNÝM ZRETELOM NA MLADÉ VEKOVÉ SKUPINY

During the Second World War and after the War venereal diseases (Syphilis and Gonorrhoea) were wide-spread. By a single census in October 1947 were notified 2960 syphilitic patients. In the years 1949—1951 intensive and effective preventive measures were introduced as compulsory notification system of venereal diseases, sexual contact-tracing investigations, correct and rapid diagnosis of venereal diseases, rapid and efficient therapy of patients with syphilis, follow-up (post-treatment observations) for all patients, routine serological tests for syphilis, in expectant mothers at ante-natal clinics, periodical screening of high-risk groups, patients in each calendar year at their hospitalization, to taking up a post and a special drive against syphilis („PN-action“). The results of these measures are manifested by substantial fall in the number of cases of syphilis and gonorrhoea. In the years 1948—1955 18 151 patients suffering from syphilis were notified. The changes of the incidence of syphilis and gonorrhoea are illustrated by statistical data (Tab. 1—9). Syphilis congenita occurs sporadically, there is a substantial fall in the number of syphilitic pregnant.

After 1989 there has been a greater group mobility and a substantial rise in active and passive tourisms and occupational travel activity, especially abroad. Changes of the sexual behaviour were expressed, especially a greater tolerance whether heterosexual or homosexual, sexual freedom, sexual promiscuity and especially prostitution.

Počas II. svetovej vojny a po nej boli pohlavné choroby (syfilis a kvapavka) veľmi rozšírené. Jednorazovým cenzusom v októbri roka 1947 sa nahlásilo 2960 syfilitikov. V rokoch 1949—1951 sa zaviedli intenzívne a účinné preventívne opatrenia ako hlásna povinnosť, depistáž, včasná a spoľahlivá diagnostika, včasná a účinná terapia, dispenzárna starostlivosť, prenatálna starostlivosť, preventívne vyšetrenia gravidných žien, pracovníkov v určitých povolaniach, hospitalizovaných pacientov, pri nástupe do zamestnania a jedna špeciálna akcia proti syfilisu („PN-akcia“). Výsledky týchto opatrení sa prejavili v podstatnom znížení incidencie syfilisu a kvapavky. Za roky 1948—1955 sa zachytilo 18 151 syfilitikov. Zmeny incidencie syfilisu a kvapavky za roky 1948—1994 sa ilustrujú štatistickými údajmi (tab. 1—9). Syphilis congenita sa vyskytuje iba sporadicky, podstatne sa znížil počet syfilisu u gravidných žien.

Po roku 1989 sa zvýšila mobilnosť obyvateľstva, výrazná migrácia pracovných síl za prácou do zahraničia a intenzívna a rozsiahla pasívna, ale aj aktívna turistika. Zvýraznili sa zmeny sexuálnych zvyklostí, najmä homosexualita mužov, stupňovala sa sexuálna voľnosť, promiskuita a najmä rozsiahla prostitúcia.

Tento vývoj sa zreteľne odzrkadľuje na incidencii pohlavných chorôb, najmä syfilisu, menej kvapavky. Kvapavku začali liečiť obvodní lekári a iní odborníci, rozširuje sa samoliečenie kvapavky pacientmi, a takto sa zvyšuje percento chronickej kvapavky. (Tab. 9, lit. 20.)

Kľúčové slová: syfilis, kvapavka, mladé vekové skupiny.

Department of Dermatology, Postgraduate Medical School, Bratislava, and ¹Department of Paediatric Dermatology, Medical School, Comenius University, Bratislava

Kožná klinika Inštitútu pre ďalšie vzdelávanie lekárov a farmaceutov v Bratislave, a ¹Detická dermatovenerologická klinika Lekárskej fakulty Univerzity Komenského v Bratislave

Address for correspondence: E. Hegyi, MD, DSc, Mickiewiczova 3, 811 08 Bratislava, Slovakia.
Phone: +421.7. 364 895

Bratisl. lek. Listy, 98, 1997, č. 10, s. 563—571

The incidence of venereal diseases (Syphilis and Gonorrhoea only) is in causal indirect association with the economical situation, with the efficiency of sexual education mainly young people,

This development is distinctively reflected in the incidence of venereal diseases, especially of syphilis, less of gonorrhoea. GP and other specialists are treating gonorrhoea, also self-treatment of gonorrhoea is evident. The percentage of chronic gonorrhoea is increasing. (Tab. 9, Ref. 20.)

Key words: syphilis, gonorrhoea, young age groups.

Bratisl. lek. Listy, 1997; 98: 563–571

and, last but not least, with the social, ethical and medical circumstances in a certain period of time.

It is generally known that war-period and post-war period are extremely favourable for the spread of venereal diseases.

The actual situation in medicine has a positive but also a negative impact on the incidence of venereal diseases. The introduction of extremely effective antibiotics for the therapy of Syphilis and Gonorrhoea is of positively influencing effect of treatment. On the other hand this short-time and effective therapy causes in young people mainly a feeling of safety and underestimation of venereal diseases. Therefore, it has a negative influence on the spread and incidence of VD. Prevention, mainly case-finding, contact-tracing and examination of sexual contacts and post-treatment observation of patients initially lead to increase of the incidence of VD, but in the long-run, the influence of these measures is positive.

We have to point out that the preventive measures mentioned above do not take other STD into consideration, because, except AIDS they are included only in epidemiological reports without other antiepidemiological measures.

In our study we analyzed identified Syphilis and Gonorrhoea during 1947–1994 in the Slovak Republic with special attention to their incidence in young age groups.

Material and method

In analyzing the incidence of Syphilis and Gonorrhoea we used the compulsory notification these diseases (Venereal Diseases ...).

We analyzed basic data on the incidence of Syphilis in men, women and men and women together, during 1947–1994, and in 1959–1994 in the age groups 0–4, 5–14, 15–24, data on the incidence of congenital syphilis (Syphilis congenita recens manifesta, tarda manifesta and Syphilis congenita latens) and available epidemiological data (number of patients per 100 000 inhabitants, number of early cases of syphilis per 100 000 inhabitants, number of pregnant women in the mentioned above years, the percentage of early syphilis out of all notified cases, the percentage of Syphilis I out of all early syphilis cases, the percentage of patients in the age group 15–24 out of all notified cases and the incidence of early Syphilis in the age groups to 24 years). Furthermore, we analyzed the number of notified cases of Gonorrhoea in 1950–1994 in men, women and men and women together, in 1959–1994 in the age groups 0–4, 5–14 and 15–24 years, and, finally, the number of patients with Gonorrhoea per 100 000 inhabitants, percentage of infected women and percentage of patients aged 15–24.

Results

See tables 1–9.

Discussion

Several periods can be distinguished in the incidence of Syphilis during 1947–1994 (Tab. 1).

The compulsory notification system of venereal diseases dates back to 1948. The data of 1947 come from a single census in October 1947. The increased incidence in 1948 is connected with the preparation of activities within a special drive against Syphilis („action PN“–“PN“ is the equivalent of VD) and the increasing numbers are in the following years are the result of this „action“ and the wide-spread sexual-contact-tracing investigations of confirmed patients with Syphilis, respectively. In the course of this „action PN“ 4 512 920 inhabitants of former Czechoslovakia within 15–45 years of age were examined. The participation in these examinations was 93.6 % of inhabitants. Syphilis infection was diagnosed in 17 972 persons. In 1955 this action was repeated in the region of Prešov (East Slovakia), and 194 454 persons were examined, their participation was 95.13 %. Syphilis infection was diagnosed in 234 patients (Osuský, 1953; Hegyi, 1958; Hegyi and Hudáková, 1960). Contemporarily rapid diagnosis of syphilis is improved, efficient and early treatment with penicillin, post-treatment observation of all patients as well as wide-spread health education has been introduced. The law No. 158/1949 established compulsory serological screening, first of all pregnant women, blood donors, women before artificial abortion, hospital patients (every calendar year), premarital examination, pre-employment examination, sailors and in cases of unclear diagnosis in policlinical practice. These measures enabled to reveal almost actual figures on syphilitic patients (18 151 patients during 1948–1955). Furthermore the number of late syphilis decreased, as well as the number of patients with tabes dorsalis a paralysis progressiva (tabes dorsalis cases 1959–1970: 223, 1971–1982: 34, 1983–1994: 8 patients, paralysis progressiva cases 1959–1970: 83, 1971–1982: 18 a 1983–1994: 2 patients, respectively). A gradual decrease was also observed (Tab. 2). The serodiagnostics of syphilis was improved and specific tests were introduced (1965 TPIT, 1974 FTA-ABS, 1976 IgM FTA-ABS, 1979 TPHA). At present quantitative TPHA and quantitative VDRL (for monitoring the therapeutic efficiency) are being carried out.

From 1947 to 1969 there is a marked decrease of incidence (in 1969, 6.1 % notified cases as compared to 1948), especially a marked decrease of prevalence of syphilis (in 1953 93.1 % of the total syphilis, in 1994 12.3 % only, see Tab. 3). Up to 1973 the incidence is increasing (538 cases, a nearly threefold incidence of that in 1969). Afterwards that a further decrease is taking place — 32 cases in 1990. After that year there is an increase again (in 1992, 3.5 times). The pronounced decrease in 1993 and 1994 is most probably due to underreporting. These trends are seen also in the age group 15–24 years, with a lowest incidence in 1989 (one women). Interest should be focused on the percentage of syphilitic women out of the total number of syphilis (Tab. 2). Up to 1978 the sex ratio showed a female predominance (more than half of all patients are women), but later there are more male patients (homosexuals?) and in 1991 more women again (in 1991 and 1992 particularly in the age group 15–24 years: increase of prostitution?). Trends in the age groups 0–4 and 5–14 are independent from the verified tendency. After 1963 the incidence of Syphilis in the age group 0–14 is minimal (Tab. 1).

Tab. 1. Základné údaje o hlásených prípadoch syfilisu v Slovenskej republike za roky 1959—1994.
Tab. 1. Basic data on notified Syphilis, Slovakia, 1959—1994.

Year	Total	Males	Females	Age groups (years)								
				0-4			5-14			15-24		
				T	M	F	T	M	F	T	M	F
1947	2960*	..	..	..	..	..	..	..	..	..	..	..
1948	3188	..	..	..	..	..	..	..	..	..	..	..
1949	1811	..	..	..	..	..	..	..	..	..	..	..
1950	3332	..	..	..	..	..	..	..	..	..	..	..
1951	4090	..	..	..	..	..	..	..	..	..	..	..
1952	1621	..	..	..	..	..	..	..	..	..	..	..
1953	1701	..	..	..	..	..	..	..	..	..	..	..
1954	1403	..	..	..	..	..	..	..	..	..	..	..
1955	1005	..	..	..	..	..	..	..	..	..	..	..
1956	698	..	..	..	..	..	..	..	..	..	..	..
1957	641	..	..	..	..	..	..	..	..	..	..	..
1958	634	..	..	..	..	..	..	..	..	..	..	..
1959	371	179	192	8	3	5	23	11	12	44	14	30
1960	391	174	217	8	3	5	28	12	16	30	4	26
1961	313	134	179	4	2	2	22	10	12	29	8	21
1962	309	143	166	3	2	1	10	3	7	24	6	18
1963	264	133	131	0	0	0	3	1	2	24	8	16
1964	210	116	94	3	1	2	7	4	3	16	8	8
1965	217	125	92	1	0	1	4	1	3	21	13	8
1966	211	105	106	2	1	1	1	0	1	18	7	11
1967	235	130	105	0	0	0	2	2	0	24	12	12
1968	234	123	111	1	0	1	4	3	1	41	18	23
1969	194	110	84	2	2	0	1	0	1	55	30	25
1970	256	133	123	1	1	0	0	0	0	102	48	54
1971	293	183	110	2	1	1	0	0	0	105	56	49
1972	508	273	235	0	0	0	1	0	1	243	114	129
1973	538	286	252	9	2	7	10	1	9	248	108	140
1974	340	171	169	2	0	2	5	0	5	156	61	95
1975	293	164	129	2	1	1	0	0	0	83	36	47
1976	261	143	118	0	0	0	1	0	1	107	48	59
1977	168	89	79	3	1	2	0	0	0	56	23	33
1978	141	95	46	0	0	0	0	0	0	27	12	15
1979	95	54	41	0	0	0	1	1	0	9	5	4
1980	149	95	54	1	1	0	0	0	0	26	19	7
1981	127	70	57	0	0	0	0	0	0	19	10	9
1982	84	55	29	0	0	0	0	0	0	23	18	5
1983	69	38	31	0	0	0	0	0	0	12	8	4
1984	103	57	46	1	1	0	0	0	0	12	6	6
1985	66	44	22	1	0	1	0	0	0	3	2	1
1986	82	57	25	0	0	0	0	0	0	6	3	3
1987	92	63	29	2	1	1	0	0	0	14	9	5
1988	91	57	34	0	0	0	0	0	0	3	3	0
1989	50	25	25	0	0	0	0	0	0	1	0	1
1990	32	16	16	0	0	0	0	0	0	5	1	4
1991	42	19	23	0	0	0	0	0	0	19	6	13
1992	114	56	58	1	0	1	0	0	0	32	11	21
1993	58	27	31	0	0	0	0	0	0	17	5	12
1994	89	44	45	0	0	0	0	0	0	32	12	20

Abbr.: T=total M=males F=females

* single census in October 1947

During 1967—1968 and 1989—1991 the limitations of international travel activity were relaxed, the migration of the population increased, the active and passive tourism, which is reflected in the changes of venereal diseases incidence.

The preventive measures had a favourable effect in the incidence of syphilis in the pregnant women and in the incidence of congenital syphilis (Tab. 4 and 5). It has been estimated, that after the Second World War about 2000 syphilitic children were born in

Tab. 2. Incidencia syfilisu, neskorý a včasný syfilis (celkovo, muži a ženy), sex-ratio syfilisu, sex-ratio včasného syfilisu v Slovenskej republike za roky 1953-1994, respektíve za roky 1959-1994.

Tab. 2. The incidence of Syphilis, late and early Syphilis (total, males and females), sex ratio Syphilis, sex ratio early Syphilis, Slovakia, 1953-1994, or 1959-1994, respectively.

Year	Total Syphilis T	Late Syphilis T	Early Syphilis			Sex ratio* Sy M/F	Sex ratio* Early Sy M/F
			T	M	F		
1953	1701	1584	117	..	..	..	..
1954	1403	1285	118	..	..	..	..
1955	1005	943	63	..	..	..	..
1956	698	657	41	..	..	..	..
1957	641	619	22	..	..	..	..
1958	634	626	8	..	..	..	..
1959	371	367	4	1	3	0.9	0.3
1960	391	389	2	1	1	0.8	1.0
1961	313	310	3	2	1	0.7	2.0
1962	309	308	1	1	0	0.9	1.0
1963	264	263	1	1	0	1.0	1.0
1964	210	208	2	2	0	1.2	2.0
1965	217	216	1	1	0	1.4	1.0
1966	211	203	8	6	2	1.0	3.0
1967	235	222	13	12	1	1.2	12.0
1968	234	202	32	25	7	1.1	3.6
1969	194	127	67	45	22	1.3	2.0
1970	256	156	100	66	34	1.1	1.9
1971	293	127	166	120	46	1.7	2.6
1972	508	228	280	178	102	1.2	1.7
1973	538	291	247	162	85	1.1	1.9
1974	340	241	99	50	49	1.0	1.0
1975	293	201	92	64	28	1.3	2.3
1976	261	128	133	71	62	1.2	1.1
1977	168	93	75	41	34	1.1	1.2
1978	141	102	39	28	11	2.1	2.5
1979	95	77	18	13	5	1.3	2.6
1980	149	102	47	36	11	1.8	3.3
1981	127	94	33	18	15	1.2	1.2
1982	84	57	27	22	5	1.9	4.4
1983	69	55	14	11	3	1.2	3.7
1984	103	83	20	12	8	1.2	1.5
1985	66	57	9	6	3	2.0	2.0
1986	82	60	22	18	4	2.3	4.5
1987	92	75	17	15	2	2.2	7.5
1988	91	70	21	14	7	1.7	2.0
1989	50	42	8	4	4	1.0	1.0
1990	32	24	8	3	5	1.0	0.6
1991	42	20	22	10	12	0.8	0.8
1992	114	54	60	31	29	1.0	1.1
1993	58	13	45	19	26	0.9	0.7
1994	89	11	78	41	37	1.0	1.1

Abbr.: T=total M=males F=females Sy=Syphilis

* approximately

Tab. 3. Niektoré epidemiologické údaje o hlásených prípadoch včasného syfilisu, včasný syfilis vo vekovej skupine 12-5-24 rokov, percento syfilitických žien vo vekovej skupine 15-24 rokov v Slovenskej republike za roky 1953-1994, respektíve za roky 1959-1994.

Tab. 3. Some epidemiological data on notified early syphilis, early syphilis in age group 15-24 years and percentage of infected women in the age group 15-24, Slovakia, 1953-1994, or 1959-1994, respectively.

Year	Total Syphilis T	Early Syphilis T	Early Syphilis age group 15-24 years			Percentage of women with early Syphilis in the age group 15-24
			T	M	F	
1953	1701	117	..	..	..	..
1954	1403	118	..	..	..	..
1955	1005	63	..	..	..	..
1956	698	41	..	..	..	..
1957	641	22	..	..	..	..
1958	634	8	..	..	..	..
1959	371	4	2	0	2	100.0
1960	391	2	2	1	1	50.0
1961	313	3	2	1	1	50.0
1962	309	1	1	1	0	0.0
1963	264	1	1	1	0	0.0
1964	210	2	0	0	0	0.0
1965	217	1	0	0	0	0.0
1966	211	8	2	2	0	0.0
1967	235	13	4	3	1	25.0
1968	234	32	11	8	3	27.3
1969	194	67	35	23	12	34.3
1970	256	100	62	32	30	48.4
1971	293	166	75	48	27	36.0
1972	508	280	155	87	68	43.9
1973	538	247	134	79	55	41.0
1974	340	99	55	28	27	49.1
1975	293	92	46	30	16	34.8
1976	261	133	61	25	36	59.0
1977	168	75	40	18	22	55.0
1978	141	39	19	10	9	47.4
1979	95	18	6	3	3	50.0
1980	149	47	18	13	5	27.8
1981	127	33	12	6	6	50.0
1982	84	27	13	10	3	23.1
1983	69	14	6	5	1	16.7
1984	103	20	11	5	6	54.5
1985	66	9	4	2	2	50.0
1986	82	22	2	2	0	0.0
1987	92	17	5	3	2	40.0
1988	91	21	8	4	4	50.0
1989	50	8	1	0	1	100.0
1990	32	8	4	1	3	75.0
1991	42	22	16	5	21	68.8
1992	114	60	32	11	21	65.6
1993	58	45	15	4	11	73.3
1994	89	78	29	12	17	37.2

Abbr.: T=total M=males F=females

Slovakia. The low incidence in individual years points at indolence or negligence of some pregnant women who did not undergo compulsory serological examination during preg-

ancy, or, acquired the syphilitic infection after this examination, respectively. Also the incidence of Syphilis congenita recens

manifesta and Syphilis congenita tarda manifesta is responsible for this development. Syphilis congenita latens was decreasing up to 1976. In 1977, but particularly in 1985, the incidence was higher, without possible explanation (camouflage of acquired syphilis?). Some epidemiological parameters of Syphilis are interes-

Tab. 4. Incidencia kongenitálneho syfilisu v Slovenskej republike za roky 1959-1994.**Tab. 4. Incidence of congenital syphilis in Slovakia in the years 1959-1994.**

Year	Congenital syphilis								
	recent manifest			late manifest			latent		
	T	M	F	T	M	F	T	M	F
1959	1	0	1	13	6	7	8	3	5
1960	2	1	1	27	10	17	50	20	30
1961	1	0	1	13	9	4	28	9	19
1962	0	0	0	7	4	3	32	9	23
1963	0	0	0	1	0	1	19	6	13
1964	0	0	0	2	1	1	33	17	16
1965	0	0	0	7	3	4	24	11	13
1966	0	0	0	0	0	0	27	11	16
1967	0	0	0	1	1	0	30	13	17
1968	0	0	0	1	1	0	26	12	14
1969	2	2	0	0	0	0	15	5	10
1970	0	0	0	1	1	0	13	5	8
1971	0	0	0	3	2	1	7	5	2
1972	0	0	0	1	0	1	5	2	3
1973	1	0	1	3	3	0	11	5	6
1974	2	0	2	2	1	1	5	3	2
1975	1	0	1	1	0	1	8	5	3
1976	0	0	0	3	2	1	8	6	2
1977	2	1	1	0	0	0	31	14	17
1978	0	0	0	0	0	0	1	0	1
1979	0	0	0	0	0	0	5	2	3
1980	0	0	0	1	1	0	6	2	4
1981	0	0	0	0	0	0	2	2	0
1982	0	0	0	0	0	0	1	0	1
1983	0	0	0	0	0	0	0	0	0
1984	1	1	0	0	0	0	2	1	1
1985	0	0	0	0	0	0	47	29	18
1986	0	0	0	0	0	0	1	1	0
1987	1	0	1	0	0	0	2	1	1
1988	0	0	0	0	0	0	0	0	0
1989	0	0	0	0	0	0	0	0	0
1990	0	0	0	1	0	1	0	0	0
1991	0	0	0	0	0	0	0	0	0
1992	0	0	0	0	0	0	1	0	1
1993	0	0	0	0	0	0	0	0	0
1994	0	0	0	0	0	0	1	0	1

Abbr.: T=total M=male F=females

ting (Tab. 5). The number of patients per 100 000 inhabitants displays, in general a falling tendency: the lowest values were in 1989—1991. Also the rate — the number of early cases per 100 000 inhabitants — develops favourably. The highest value was in 1972 (6.1). The favourable trend was terminated by 1992 (1.1). The number of pregnant women with Syphilis shows a decreasing tendency on the whole. During 1971—1976 there was a rising tendency, after the years 1983—1993 the incidence was minimal, in 1994 increasing. The trends of incidence of early Syphilis is favourable until 1967. In 1992 the early Syphilis patients represent upto 52.0 % of all notified cases of Syphilis, in 1993 even 77.6 % and in 1994 87.6 %. The percentage of Syphilis I out of the total number of early Syphilis shows on the whole a good quality of health education of the population and good diagnostic measures

Tab. 5. Niektoré epidemiologické parametre syfilisu v Slovenskej republike za roky 1947-1994, respektive za roky 1959-1994.**Tab. 5. Some epidemiological parameters of Syphilis in Slovakia, 1947-1994, or 1959-1994, respectively.**

Year	Notified cases per 100 000 inhabitants Sy	recent Sy	Number of pregnant women	recent Sy out of total Sy	Percentage of		
					Sy I out of total recent Sy	recent Sy age group 15-24 out of total recent Sy	recent Sy age group 15-24 out of total recent Sy
					Sy	Sy	Sy
1947	87.1	..	..	..	..	..
1948	92.5	..	..	..	..	..
1949	55.4	..	..	..	..	..
1950	96.7	..	..	..	..	..
1951	116.6	..	..	..	..	..
1952	45.7	..	..	..	..	..
1953	47.3	3.3	..	6.9	..	..
1954	38.3	3.2	..	8.4	..	..
1955	27.0	1.7	..	6.3	..	..
1956	18.5	1.1	..	5.9	..	..
1957	16.7	0.6	..	3.4	..	..
1958	16.3	0.2	..	1.3	..	..
1959	9.4	0.1	15	1.1	50.0	11.0	
1960	9.8	0.1	18	0.5	0.0	7.7	
1961	7.5	0.1	16	0.9	66.7	9.3	
1962	7.3	0.0	13	0.3	100.0	7.8	
1963	6.2	0.0	11	0.0	100.0	9.1	
1964	4.9	0.1	5	0.9	100.0	7.6	
1965	5.0	0.0	10	0.5	0.0	9.5	
1966	4.8	0.1	5	2.8	50.0	8.5	
1967	5.3	0.3	5	13.7	28.1	10.2	
1968	5.2	0.7	8	13.7	81.2	17.5	
1969	4.3	1.5	4	34.5	47.8	28.3	
1970	5.7	2.2	5	39.1	58.0	39.8	
1971	6.4	3.6	8	56.6	60.2	35.8	
1972	11.1	6.1	18	55.1	46.4	47.8	
1973	11.6	5.3	27	45.9	49.8	46.1	
1974	7.2	2.1	28	29.1	46.5	45.9	
1975	6.2	1.9	22	31.4	50.0	28.3	
1976	5.4	2.8	20	50.9	21.0	36.5	
1977	3.5	1.5	9	44.6	30.7	33.3	
1978	2.9	0.8	5	27.7	20.5	19.1	
1979	1.9	0.4	2	18.9	16.7	9.5	
1980	3.0	0.9	1	31.5	10.6	17.4	
1981	2.5	0.7	3	26.0	9.1	14.9	
1982	1.7	0.5	2	32.1	11.1	27.4	
1983	1.4	0.3	0	20.3	28.6	17.4	
1984	2.0	0.4	2	19.4	15.0	11.6	
1985	1.3	0.2	0	22.2	0.0	4.5	
1986	1.6	0.4	2	26.8	4.5	7.3	
1987	1.8	0.3	1	18.5	5.9	15.2	
1988	1.7	0.4	0	23.1	14.3	3.3	
1989	0.9	0.2	1	16.0	12.5	2.0	
1990	0.6	0.2	1	25.0	75.0	15.6	
1991	0.8	0.4	0	52.4	27.3	45.2	
1992	2.2	1.1	1	52.0	40.0	28.1	
1993	1.1	0.8	1	77.6	51.1	29.3	
1994	1.7	1.5	7	87.6	30.8	23.6	

Abbr.: T=total M=male F=female Sy= Syphilis

in the fight against syphilis. The percentual participation of age group 15—24 is responsible for threatening of the young genera-

Tab. 6. Hlásené prípady syfilisu a kvapavky v Slovenskej republike za roky 1988, 1989 a 1994 podľa veku a pohlavia (u 12–20-ročných).
Tab. 6. Notified Syphilis and Gonorrhoea, Slovakia, 1988, 1989 and 1994 by age and sex (12–20 years).

Age (year)	1988						1989					
	Syphilis			Gonorrhoea			Syphilis			Gonorrhoea		
	T	M	F	T	M	F	T	M	F	T	M	F
12	0	0	0	0	0	0	0	0	0	0	0	0
13	0	0	0	0	0	0	0	0	0	0	0	0
14	0	0	0	3	1	2	0	0	0	0	0	0
15	0	0	0	10	3	7	0	0	0	18	3	15
16	0	0	0	35	9	26	0	0	0	42	14	28
17	1	1	0	92	22	70	0	0	0	70	19	51
18	0	0	0	102	53	49	0	0	0	145	53	92
19	0	0	0	161	67	94	0	0	0	149	60	89
20	0	0	0	135	48	87	0	0	0	108	43	65

Abbr.: T=total M=males F=females

Age (year)	1994					
	Syphilis			Gonorrhoea		
	T	M	F	T	M	F
12	0	0	0	0	0	0
13	0	0	0	1	0	1
14	0	0	0	7	3	4
15	1	0	1	16	5	11
16	0	0	0	27	10	17
17	1	0	1	47	28	19
18	3	0	3	53	21	32
19	2	0	2	64	42	22
20	11	4	7	71	46	25

tion. Data on the incidence of early Syphilis before the 24th year of age are a similar memento: the situation was generally favourable but after 1991 it is deteriorating too. In 1988 and 1989 only one patient aged 17 was found in the age group of 12–20, in 1994 by that time 18 patients (Tab. 6).

In table 7, basic data are shown on the incidence of Gonorrhoea in the years 1950–1994. Gradually, the number of notified cases is increasing from 1953 to 1957, reaching its maximum in 1969 (3398 patients). The falling incidence is may-be in connection with better prevention due to fear of HIV-infection. A marked decrease of the incidence of Gonorrhoea is reported by several authors (for the years 1980–1991 from 3670 patients to 638 (Renton et al., 1993), in Norway from 300/100 000 in 1976 up to 15/100 000 in 1991 (Falk and Vandbraak, 1993), in Denmark from 11 000 in 1980 to approximately 100 in 1991 (Weismann et al., 1993), and also in other European countries, as well as in Canada (from 225/100 000 in 1980 to 75/100 000 in 1989 (Sexually transmitted ..., 1991). In Strassbourg the number of Gonorrhoea cases fell from more than 400 annual cases in the 1970s to seven in the year 1992 (Cribier et al., 1994). Generally the fear of HIV-infection causes a wider use of condoms which plays an important role in the prevention of Gonorrhoea. The incidence in the age group 0–4 was minimal. The diagnosed cases were perhaps in connection with omitting compulsory credeization of new-born children or by changes of silver nitrate solution instillation in the eyes by external administration of antibiotics after the

date of expiration. Even in the age groups from 5 to 14 years there are acquired forms of Gonorrhoea. It is interesting that the percentage of male patients with Gonorrhoea at the age of 0–4 years is 25.3 %, and at the age of 5–14 years 18.0 %, and, at the age of 15–24 years 54.6 %, respectively. The differences between male and female patients are significant in the age groups 0–4 and 5–14 (Vulvovaginitis gonorrhoeica infantum, and in the age group of 5–14, acquired forms too). An increased incidence of Gonorrhoea was found in 1971–1973 and 1980–1982, respectively. An important part of the patients is represented by the age group 15–24, the percentage of which ranges from 42.0 in 1959 to 76.7 in 1991 (Tab. 8). Covan and Mindel (1993) reported a 25 % proportion of the incidence of Gonorrhoea in the age group of 15–19 years. The percentage of women with gonorrhoea out of the total number of detected patients after 1977 was about 45 %. The sex-ratio was improved due to cooperation with gynaecologists first of all from Middle-Slovakia. Chronic Gonorrhoea remains a serious problem affecting upto 53.4 % of women with Gonorrhoea in 1994 (Tab. 9). This may be caused either by late reporting of patients for medical care or by inappropriate treatment (self-treatment) with penicillin, tetracycline or other antibiotics to which resistance of gonococci may exist. The maximum number of notified patients per 100 000 inhabitants was in 1969 (72.2), only 25.4 in 1993 and 13.0 in 1994. The incidence of Gonorrhoea during 1988 and 1989 by single years in persons aged 12–20, by sex revealed a dominant incidence in girls in 1988 and 1989, while in 1994 a dominance of boys was observed. At the age of 12 years acquired Gonorrhoea was not notified (Tab. 6).

Research activities were aimed at the course of Gonorrhoea in women (Pěč et al., 1982) in pregnant women (Pěč et al., 1988 a) at relapses of Gonorrhoea (Pěč and Krkoška, 1981) at the penetration of gonococci into the upper part of genital organs of pregnant women, at morphological changes of *N. gonorrhoeae* in the amniotic fluid (Pěč et al., 1992) and, at the isolation of *N. gonorrhoeae* from urine obtained by suprapubic puncture of the bladder in men and women with gonococcal urethritis (Pěč et al., 1988 b, 1990).

In the campaign against venereal diseases, highest degree anti-epidemic measures have to be taken and aimed at contact-tracing

Tab. 7. Základné údaje o hlásených prípadoch kvapavky v Slovenskej republike za roky 1959-1994 so zvláštnym zameraním na vekové skupiny 0-24 rokov.**Tab. 7. Basic data on notified Gonorrhoea, Slovakia, 1959-1994 with special regard to the age groups 0-24 years.**

Year	T	M	F	0-4			5-14			15-24		
				T	M	F	T	M	F	T	M	F
1950	660	..	..	..	..	..	..	..	..	..	..	..
1951	567	..	..	..	..	..	..	..	..	..	..	..
1952	96	..	..	..	..	..	..	..	..	..	..	..
1953	1532	..	..	..	..	..	..	..	..	..	..	..
1954	1683	..	..	..	..	..	..	..	..	..	..	..
1955	1707	..	..	..	..	..	..	..	..	..	..	..
1956	1307	..	..	..	..	..	..	..	..	..	..	..
1957	909	..	..	..	..	..	..	..	..	..	..	..
1958	530	..	..	..	..	..	..	..	..	..	..	..
1959	490	304	186	1	0	1	1	0	1	206	119	87
1960	488	325	163	1	0	1	1	0	1	207	130	77
1961	423	279	144	0	0	0	0	0	0	197	116	81
1962	456	316	140	0	0	0	1	0	1	214	135	79
1963	640	415	225	0	0	0	3	0	3	342	222	120
1964	954	637	317	0	0	0	0	0	0	604	369	235
1965	1160	798	362	1	0	1	2	1	1	691	447	244
1966	1585	1068	517	3	1	2	2	0	2	970	612	358
1967	2206	1438	768	4	1	3	4	1	3	1347	784	563
1968	2806	1869	937	2	1	1	8	2	6	1804	1115	689
1969	3398	2244	1154	3	1	2	6	1	5	2349	1466	883
1970	3372	2127	1245	0	0	0	3	0	3	2235	1336	899
1971	3197	1960	1237	0	0	0	16	3	13	2134	1236	898
1972	2981	1824	1157	2	1	1	11	2	9	1985	1150	835
1973	2843	1782	1061	5	2	3	10	1	9	1944	1145	799
1974	3089	1916	1173	0	0	0	4	0	4	2135	1242	893
1975	3042	1868	1174	2	0	2	7	3	4	2109	1207	902
1976	2725	1645	1080	1	0	1	8	2	6	1807	1006	801
1977	2673	1532	1141	2	1	1	7	1	6	1776	928	848
1978	2755	1572	1183	6	2	4	7	0	7	1739	918	821
1979	2927	1616	1311	6	3	3	9	2	7	1830	897	933
1980	3168	1733	1435	3	2	1	10	1	9	1876	905	971
1981	3370	1807	1563	4	0	4	15	2	13	1949	937	1012
1982	3363	1848	1515	1	0	1	7	1	6	1880	941	939
1983	3201	1741	1460	3	1	2	8	0	8	1774	856	918
1984	2618	1452	1166	3	0	3	2	1	1	1433	694	739
1985	2778	1548	1230	3	1	2	9	1	8	1554	766	788
1986	2590	1426	1164	4	0	4	8	0	8	1594	801	793
1987	2145	1190	955	1	0	1	4	1	3	1370	709	661
1988	1855	1033	822	2	0	2	0	0	0	1202	615	587
1989	1606	844	762	2	0	2	2	0	2	1065	543	522
1990	1980	1088	892	0	0	0	3	1	2	1285	645	640
1991	1982	1110	872	1	0	1	7	5	2	1320	680	640
1992	1850	1036	814	5	1	4	4	2	2	1201	622	579
1993	1347	775	572	1	1	0	11	5	6	891	468	423
1994	696	432	264	1	0	1	8	3	5	452	273	179

Abbr.: T= total M= males F=females

and at ways of spread of infection. In venereal diseases control the decisive measures are early isolation of infected persons, treatment and curing of sources of infection including all contacts of the patient. Therefore, the following activities are necessary:

- speedy contact finding,
- compulsory notification,

Tab. 8. Niektoré epidemiologické parametre kvapavky za roky 1959-1994.**Tab. 8. Some epidemiological parameters concerning Gonorrhoea in the years 1959-1994.**

Year	Number of patients per 100 000 inhabitants	Percentage of women	Gonorrhoea Sex Ratio* M/F	Percentage of the age group 15-24 years
1959	12.4	37.9	1.6	42.0
1960	12.2	33.4	2.0	42.4
1961	10.1	34.0	1.9	46.6
1962	10.8	30.7	2.3	46.9
1963	14.9	29.5	1.8	53.4
1964	22.4	33.2	2.0	63.3
1965	26.5	31.2	2.2	59.6
1966	35.9	32.6	2.1	61.2
1967	49.5	34.8	1.9	61.1
1968	62.6	33.4	2.0	64.3
1969	75.2	33.9	1.9	69.1
1970	74.5	36.9	1.7	66.3
1971	70.1	38.7	1.6	66.7
1972	64.9	38.8	1.6	66.6
1973	61.3	37.3	1.7	68.4
1974	65.8	38.0	1.6	69.1
1975	64.2	38.9	1.6	69.3
1976	56.9	39.6	1.5	66.3
1977	55.2	42.7	1.3	66.4
1978	56.3	42.9	1.3	63.1
1979	59.2	44.8	1.2	62.5
1980	63.6	45.3	1.2	59.2
1981	67.2	46.4	1.2	57.8
1982	66.6	45.6	1.2	55.9
1983	62.9	45.6	1.2	55.4
1984	51.1	44.5	1.2	54.7
1985	53.8	44.3	1.3	55.9
1986	49.9	44.9	1.2	61.5
1987	41.1	44.5	1.2	63.9
1988	35.3	44.3	1.3	64.8
1989	30.4	44.9	1.1	66.3
1990	37.4	45.0	1.2	64.9
1991	37.5	44.0	1.2	76.7
1992	34.9	44.0	1.3	64.9
1993	25.4	42.5	1.4	66.1
1994	13.0	37.9	1.6	64.9

* approximately

- correct and rapid diagnosis of venereal disease,
- rapid and efficient therapy of patients,
- follow up (post-treatment observation) of all patients.

Influencing the spread of infection is possible by general activities such as:

- health education,
- sex education,
- education against promiscuity and prostitution,
- education for parenthood, and, special interventions such as
- periodical particularly serological screening for Syphilis,
- routine serological testing for Syphilis in expectant mothers at ante-natal clinics,
- periodical screening of high-risk groups such as homosexuals, prostitutes, hotel-, night club- or erotic and massage saloon staff, etc.

Tab. 9. Percento chronickej kvapavky u mužov a žien v Slovenskej republike za roky 1955-1994, respektíve za roky 1959-1994.**Tab. 9. Percentage of chronic Gonorrhoea in men and women in Slovakia, in the years 1955-1994 or 1959-1994, respectively.**

Year	Percentage of chronic gonorrhoea out of total gonorrhoea		
	Total	Females	Males
1955	11.9	–	–
1956	16.5	–	–
1957	27.3	–	–
1958	14.9	–	–
1959	14.7	27.4	6.9
1960	15.9	33.1	7.4
1961	14.2	29.9	6.1
1962	12.7	28.6	5.7
1963	11.9	28.0	5.1
1964	18.0	36.3	9.3
1965	18.7	41.4	8.6
1966	15.7	36.2	5.9
1967	20.4	40.5	10.2
1968	19.7	41.7	8.8
1969	18.3	41.2	6.6
1970	21.8	44.9	8.3
1971	22.0	44.1	8.1
1972	23.1	45.2	9.0
1973	22.3	43.8	9.7
1974	21.6	40.9	9.8
1975	21.4	38.9	10.6
1976	24.2	44.5	11.2
1977	27.0	46.6	12.8
1978	27.9	48.0	12.9
1979	30.1	48.4	15.6
1980	35.3	57.9	17.5
1981	34.8	53.2	19.2
1982	34.1	23.1	19.4
1983	36.0	54.9	20.6
1984	35.2	55.5	19.6
1985	34.2	52.8	20.3
1986	35.3	52.7	22.2
1987	38.5	58.8	22.7
1988	42.9	61.8	29.0
1989	44.9	66.3	28.9
1990	37.9	57.8	22.1
1991	38.0	57.4	23.5
1992	31.0	48.1	17.7
1993	33.3	49.6	21.9
1994	32.9	53.4	19.2

STD are not only common infections but they also interfere with genital functions causing damage to the fetus and to the newborn. The transmission to children is occurring in cases of sexual abuse, but also accidentally or perinatally (Lowy, 1992). AIDS, Syphilis, Gonorrhoea, Condylomata acuminata and Chlamydia-caused infections are commonly transmitted to children. And just little attention is paid to the later infection (Fuster and Neinstein, 1987).

In conclusion, it is necessary to point out the fact that the most effective, and, at the same time, the cheapest form of prevention against STD is intensive and effective health education, especially directed towards the young generation. It must be highly profes-

sional and affect the mind of youth (parents, school and other educational establishments, mass media, popular magazines, „hot lines“-by phone and various youth clubs). Also public inquiries on STD among young people may become an impulse for extensive discussions (Lister et al., 1993). All other measures are also important though not crucial.

The future

Intensive education and training of medical personnel (physicians, nurses and qualified contact tracers).

Gonorrhoea

— The increasing resistance of gonococci to penicillin, tetracycline and other antibiotics will continue, and therefore, compulsory culture of specimens for Gonorrhoea including sensitivity examination to various antibiotics is essential.

— Single injection of antibiotics shall be given priority.

Syphilis

— Interaction of acquired syphilis and immunodeficiencies (including AIDS), causes changes of the clinical picture of syphilis and of the serological response to this infection.

— Increased frequency of early neurological and ocular manifestations of syphilis is expected (Laurent, 1994).

— Revision of diagnostic and therapeutic criteria for syphilis, obligatory darkfield examination of all suspect lesions.

— Longterm follow-up post-treatment examination of patients with syphilis.

References

Venereal Diseases in 1959-1962 (Health Statistics), Venereal Diseases 1963—1987 (Institute of Health Statistics, Praha), Venereal Diseases 1988—1994 (Institute of Health Information and Statistics, Bratislava), (in Czech and Slovak, respectively).

Osuský J.: Results of the PN-action in Slovakia (in Slovak). Bratisl. lek. Listy, 33, 1953, s. 569—576.

Hegy E.: Topical problems of the campaign against syphilis in Slovakia (in Slovak). Lek. Obzor, 7, 1958, s. 641—648.

Hegy E., Hudáková G.: Problems of the campaign against venereal diseases in Czechoslovakia. Brit. J. ven. Dis., 36, 1960, s. 128—132.

Renton A.M., Ison C.A., Whitake R.L., Kirland L., Kupek, Harris, J.R.M.: Neisseria gonorrhoeae isolated at St. Mary's hospital London, 1990—91. Genitourin. Med., 69, 1993, s. 286—289.

Falk E.S., Vandbraak O.: Declining trends in some sexually transmitted diseases in Norway between 1975 and 1991 with special reference to a Lapp population. S. 15—20. In: Falk E.S. (Ed.): Prevalence of dermato-venereological diseases in a Norwegian Lapp population. Acta derm.-venereol., 1993, Suppl. 182, s. 15—20.

Weismann K., Petersen C.S., Sondergaard J.: Sexually transmitted diseases in Denmark and in a STD clinic in Copenhagen 1980—1991. Acta derm.-venereol., 73, 1993, s. 313—314.

Sexually transmitted diseases — Trends in gonorrhoea, 1980—1989, Canada. WHO-Week. epid. Rec., 66, 1991, s. 41, 11 Oct.

- Cribier B., Asch P.H., Tardieu J.C.:** Declining rates of gonorrhoea and syphilis in Strasbourg, France: a 20-year study. *Genitourin. Med.*, 70, 1994, s. 273—277.
- Covan F.M., Mindel A.:** Sexually transmitted diseases in children-adolescents. *Genitourin. Med.*, 69, 1993, s. 141—147.
- Pěč J., Krkoška M., Jedinák J.:** The course of gonorrhoea in women and some aspects of its diagnosis. *Bratisl. lek. Listy*, 77, 1982, s. 326—332 (in Slovak).
- Pěč J., Mlynček M., Pěčová K., Moravčík P.:** The course of the gonococcal infection of the genital tract in pregnancy. *Lek. Obzor*, 37, 1988 a, s. 301—306 (in Slovak).
- Pěč J., Krkoška M.:** Relapses of gonococcal infection in patients of both sexes. *Bratisl. lek. Listy*, 76, 1981, s. 192—198.
- Pěč J., Mlynček M., Moravčík P., Belej K., Lazárová Ž.:** Morphological changes of *Neisseria gonorrhoeae* in amniotic fluid of pregnant women in their midtrimester. *Acta microbiol. Hungar.*, 39, 1992, s. 21—30.
- Pěč J., Moravčík P., Kliment J., Fetisov I.:** Isolation of *Neisseria gonorrhoeae* from urine obtained by suprapubic puncture of bladders of men with gonococcal urethritis. *Genitourin. Med.*, 64, 1988 b, s. 156—158.
- Pěč J., Kliment J., Moravčík P., Fetisov I., Pěčová K.:** Isolation of *Neisseria gonorrhoeae* and concomitant bacterial microflora from urine obtained by suprapubic bladder puncture in women with gonococcal urethritis. *Int. Urol. Nephrol.*, 22, 1990, s. 167—171.
- Lowy G.:** Sexually transmitted diseases in children. *Pediat. Dermatol.*, 9, 1992, s. 329—334.
- Fuster C.D., Neinstein L.S.:** Vaginal chlamydia trachomatis prevalence in sexually abused prepubertal girls. *Pediatrics*, 79, 1987, s. 235—238.
- Lister P., French R., Pallearos A., Klempton R., Thirlby D., Robinson A.:** Teenagers and the risk of STD. *Genitourin. Med.*, 69, 1993, s. 80.
- Laurent R.:** Syphilis acquise et infection par le VIH. *Presse méd.*, 23, 1994, s. 1621—1626.

Do redakcie došlo 31.1.1996.

LIST REDAKCII

Vážený pán šéfredaktor,

som stálym čitateľom Bratislavských lekárskeho listov a úprimne sa teším z toho, že ich úroveň — tak obsahová, ako aj grafická — sa výrazne zlepšuje. Jo to iste vďaka kvalitnej koncepcijnej, ako aj redaktorskej práci celého kolektívu, ktorý tento časopis pripravuje.

So záujmom som si prečítal aj Vašu úvahu *Návrh kritérií pre prijatie doktorskej dizertačnej práce k obhajobe ...* S väčšinou Vašich názorov uvedených v úvahe súhlasím a som presvedčený, že by mali byť akceptované vedeckou komunitou, ak vôbec má mať titul DrSc. nejaké opodstatnenie. Nesúhlasím však s myšlienkou, že úlohou predsedu komisie pre obhajobu DrSc. prác by malo byť povedať, či počet publikovaných prác je dosť alebo málo. Túto páľčivú a zložitú otázku by mala posúdiť celá komisia, lepšie povedané, každý jej člen, prípadne iní odborníci z príslušnej oblasti. Úlohou predsedu by bolo len oznámiť uchádzačovi rozhodnutie komisie.

Spornou sa mi zdá aj podmienka publikovania vo forme monografického diela. Myslím si, že pre pracovníka, ktorý sa zaoberá výskumom v určitej oblasti dlhé roky a publikoval práce nielen v domácich, ale aj zahraničných vedeckých časopisoch, by nebol problém takúto monografiu napísať, ale problémom je dostať ju do edičného plánu nejakého vydavateľstva. Iste súhlasíte, že tento

problém súvisí už aj s inými ako vedeckými kvalitami vedeckého pracovníka. Domnievam sa, že pri obmedzených finančných zdrojoch existujúcich na krytie vydania monografií sa selektujú témy, ktoré budú uprednostnené pred inými.

Domnievam sa, že ani splnenie Vašej požiadavky pre prijatie DrSc. práce: “Predkladateľ DrSc. práce musí predložiť kópiu vedeckej práce, ktorú uverejnil ako prvý autor v karentovaných časopisoch, ktoré sú nad mediánom impaktového faktora v oficiálne uvádzanej skupine časopisov” nemusí byť jednoduché ani pre kvalitného vedeckého pracovníka.

V mojich predstavách bol a je doktor vied vedec, ktorý dokázal nájsť kľúčové miesto pre riešenie vedeckého problému, pre riešenie vedeckého problému nie okrajového, ale zásadného, teda takého, ktorého vyriešenie otvorilo priestor pre výrazný rozvoj vedného odboru a vedy vôbec. Nájsť takýto bod, takéto kritické miesto, formulovať ho do vedeckého problému, navrhnúť jeho riešenie a úspešne problém vyriešiť, to môže len vedec so širokou a hlbokou poznatkovou bázou, nekonvenčným myslením a silnou vôľou svoje predstavy realizovať. Obávam sa, že takých máme na Slovensku málo, no doktorov vied je veľa a zdá sa, že bude ešte viac.

S pozdravom
prof. MUDr. J. Hanáček, CSc.

v.r.