Continuous morbidity registration sentinel stations the Netherlands 1999

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FOREWORD

The limited nature of the programme - a maximum of 15 topics a year on the weekly returns - does not allow the continuous registration of several topics. Intermittent registration, however, is an option. For example, on the topic of dog bites records were kept in 1986-87 and again in 1998-99.

During the 10+ years between the two registration periods, the number of people treated by a GP for dog bites decreased to approximately 40% of the number registered in 1986-87. Other sources show that the number of dogs in the Netherlands fell in that period as well. However, the drop in the number of dog-bite victims treated by GP's was greater than the decrease in the number of dogs. The incidence of wounds from dog bites treated by hospital emergency first aid stations fell as well. It seems as if progress has been made with respect to dog handling.

Concern about infection with the HIV virus continues to decrease. Not only are fewer people being tested for HIV antibodies via their GP's, but GP's who are aware of patients' risky behaviour are not taking the initiative to request a test with any increased frequency. Yet experts indicate that improved treatment opportunities justify a less reserved testing policy.

Sentinel station physicians have been registering requests for euthanasia by their patients since 1976. After a gradual increase in the number of requests in the first 15 years of registration, the number has been stable for the past 10 years. The percentage of euthanasia requests by patients suffering from a malignancy remains steady at 70 to 80%. The share of patients in the 65-85 age group is between 50 and 65%.

Prof. dr. J. van der Zee
Chairman, Counselling Committee

INTRODUCTION

Continuous Morbidity Registration is a method of registration based on general practice. A national network of general practices, the sentinel stations, covers 1% of the Dutch population. In the composition of this network allowance has been made for a geographical spread and for a spread over regions with a varying degree of urbanization (see p. 5-6).
The participating general practitioners, the spotter physicians, submit a form every week on which certain illnesses, occurrences and actions are reported, the weekly return. This weekly return comprises a distribution by age and where necessary a distribution by sex (see p. 118).
Every two years a census takes place of the practice populations concerned. In this way the population to which the collected data must be related is known.
On the whole frequencies are calculated according to age group per 10 000 men or women (see p. 15).
Every year the topics that are to be placed on the weekly return are selected by the Counselling Committee. Requests or suggestions from others are also taken into consideration. In order that a disease or occurrence may be placed on the weekly return, at least five conditions must be met:

1. the importance of the subject must be described;
2. it must be possible to formulate strict and clear criteria with respect to the disease or occurrence to be recorded;
3. application of these criteria may not be too time-consuming and it has to suit the practice of the GP;
4. there must be a need for information at a national representative level, and
5. the CMR Sentinel Stations form the most suitable source of information.

Registration of a particular topic is terminated when, in the opinion of the topic holder, data has been gathered for a sufficient length of time. Registration also ceases when the registration of another topic results in the collection of more or less the same data or if insurmountable problems arise in the registration of data for that topic.

When a topic is included for the first time in the weekly return, some background information is given in this report; for the 'old subjects' it is necessary to consult one of the previous reports.
When considering the subjects that have been included during the years on the weekly return (see p. 119 and 120) the conclusion is reached that the name of the project, Continuous Morbidity Registration, does not in fact cover the whole work. After all, in part it is not diseases that are registered but actions or occurrences. The

name sentinel stations is better: a watch is kept, sometimes for one year, sometimes longer or even continuously. That is why the name "Continuous Morbidity Registration, Sentinel Stations the Netherlands" is used.
In addition to the submission of weekly returns, a start was made in 1976 with incidental investigations. This entails the physicians being asked at the end of the year questions about diseases or occurrences that did not happen frequently in the past year.
The report gives neither an exhaustive (statistical) analysis of the collected material nor an extensive study; the aim of the project is to collect basic details on certain subjects and to pass them on.

International cooperation
The CMR Sentinel Stations have been participating in international projects since 1985.

The European Influenza Surveillance Scheme (EISS) is currently the project with the longest history. EISS facilitates cooperation among the networks of sentinel stations and also incorporates contributions from the national influenza centres of the participating countries: Belgium, Germany, England, France, Italy, Portugal, Scotland, Spain, Czech Republic, Switzerland and the Netherlands. NIVEL is responsible for coordinating EISS and receives funding for this purpose from the European Commission.

In 1998, Nivel initiated a request for a subsidy, in cooperation with Dr. Douglas Fleming (UK), the project leader of the British Sentinel Stations (Weekly Returns Service). The subsidy was requested and granted for a project aimed at coordinating the health information obtained from the sentinel station networks in EU Member States. The CMR Sentinel Stations are also participating in this project, for which data will be gathered in 2000.

COUNSELLING COMMITTEE

The subsidy arrangement with the Ministry of Public Health, Welfare and Sport lays down that the Counselling Committee for the implementation of the registration systems consists in principle of:

1. two representatives of the Ministry of Public Health, Welfare and Sport;
2. the Director of the Netherlands Institute for Health Service Research (Chairman);
3. one representative of the Netherlands Institute for Health Service Research;
4. two representatives of the Health Care Inspectorate;
5. two representatives of the spotter physicians;
6. one representative of the joint Institutes for General Practice of Dutch Universities;
7. two members on the basis of specific expertise.

In 1999 the committee functioned in the following composition:

	Mw. Dr. Y.T.H.P. van Duynhoven, health care scienlist-epidemiologist[7]
	F.K.A. Fokkema, M.D.[5]
	W. Reijmerink[1]
	Dr. F.G. Schellevis, M.D.physician-epidemiologist[3]
	H.O. Sigling, M.D.[7]
	Dr. H. Verkley, sociologist[7]
	J. Vesseur, M.D.[4]
	A.A.M. Vloemans, M.D, physician/epidemiologist[1]
	J.K. van Wijngaarden, M.D.[4]
	Prof. Dr J. van der Zee[2], chairman
Project leader:	A.I.M. Bartelds, M.D.
Secretaries:	Mrs M. Heshusius-van Valen

In 1997 Dr. D. Fleming, director of the Birmingham Research Unit of the Royal College of General Practitioners, was engaged as adviser to the CMR-Sentinel Stations.

This committee met twice in 1999. It had one vacation (a representative of the spotter physicians). The committee had three members on the basis of specific expertise in 1999. The joint Institute for General Practice of Dutch Universities was not represented, in the commitee this year.

MEETING OF SPOTTER CO-WORKERS 1999

Contact between the registering physicians and their co-workers, the counselling committee, the topic-holders and the project leaders is of great importance to a registration project like the CMR Sentinel Stations. Every year, at the beginning of a new registration period, a meeting is held for that purpose.

The CMR Sentinel Stations form a flexible data registration network which, given the existing infrastructure, is well placed to gather information about a problem relatively quickly. The use of health care aids, from bandages and syringes to rollators and lift chairs, is resulting in increasing costs. In 1999 the CMR Sentinel Stations began charting the prescription of medical supplies by GPs. Dr. C.H.M. van der Ende, affiliated with Nivel, introduced this topic and sketched out the registration objective for this particular category. The original registration structure was adapted in consultation with the physicians present to avoid overburdening the practices.

Active surveillance of infectious diseases is a permanent component of the annual programme of the CMR Sentinel Stations. J.E..A.M. van Bergen, a GP employed by the Stichting SOA-bestrijding (STD prevention foundation in the Netherlands), addresses the surveillance of Sexually Transmitted Diseases in the Netherlands and the role that GPs and a network of sentinel stations could play in registering data.

Dr. Y.T.H.P. van Duynhoven, project leader for gastrointestinal infections at the Department for Infectious Diseases Epidemiology of the National Institute of Public Health and the Environment, updated the guests on the Sensor Project. Sensor stands for Surveillance of Enteral Infections in the Netherlands through Systematic Research and Registration. The study is being carried out in the practices of the GPs participating in the CMR Sentinel Stations programme and is an important supplement to the patient control study conducted in the period 1996-1999.

A.I.M. Bartelds, GP project leader of the CMR Sentinel Stations, gave a report about the non-routine study on euthanasia requests from 1976-1998. He compared the outcome of registration by the sentinel stations with other research conducted in the Netherlands on the same topic. Although the comparison revealed minor differences, the overall results of the studies were generally similar.

DISTRIBUTION OF THE SENTINEL STATIONS OVER THE NETHERLANDS

Figure 1
SENTINEL STATIONS
Continuous Morbidity Registration
1999

------ Province group border
degree of urbanization

- ◉ 5: rural municipalities
- ☐ 4-3-2-: urbanized rural municipalities together with municipalities with urban characteristics
- ◪ 1: municipalities with a population of 100 000 of more

The number of sentinel stations in 1999 was 43. The number of general practitioners in the sentinel station practices is 67.

In the processing and discussion the following abbreviations or codes are used:
- A for the Groningen, Friesland and Drenthe province group (northern provinces);
- B for the Overijssel, Gelderland and Flevoland province group (eastern provinces);
- C for the Utrecht, North Holland and South Holland province group (western provinces);
- D for the Zeeland, North Brabant and Limburg province group (southern provinces);
- 1 for the degree of urbanization 5 (rural municipalities);[1]
- 2 for the degree of urbanization 4-3-2 (urbanized rural municipalities together with municipalities with urban characteristics);
- 3 for the degree of urbanization 1 (municipalities with a population of 100 000 or more).

Appendix 1 (p. 116 -117) gives a survey of the general practitioners who took part in the sentinel station project during 1999. In 16 sentinel stations there is cooperation between two or more general practitioners, viz 11 times 2, 4 times between 3 practitioners and once between 6 practitioners. In January 1999 the percentage of general practitioners cooperating throughout the Netherlands was 56.5%, and among the spotter physicians 61.2. There are 5 dispensing spotter physicians, 3 in degree of urbanization 1 and 2 in degree of urbanization 2, that is 7.5% of the total number of spotter physicians. For the Netherlands as a whole this percentage is 8.9.[2]

Tables 1 and 2 give a distribution of the number of spotter physicians and sentinel stations per province and degree of urbanization in the years 1990-1999.
Adjustment to the standards applicable to the classification by degree of urbanization takes place where and when necessary.
Comparison with the number of general practitioners in the Netherlands in the various subgroups shows that the spotter physicians form a proportional representation.

Table 1: Distribution of the spotter physicians (general practitioners) and sentinel stations per province group in the years 1990-1999[3]

province group	A		B		C		D	
	Groningen, Friesland and Drenthe		Overijssel, Gelderland and Flevoland		Utrecht, North and South Holland		Zeeland, North Brabant and Limburg	
	number of		number of		number of		number of	
	GPs	sentinel stations	GPs	sentinel stations	GPs	sentinel stations	GPs	sentinel stations
1990	10	6	10	8	28	20	13	10
1991	10	6	10	8	29	19	14	10
1992	10	6	10	8	29	19	14	10
1993	10	6	12	10	28	19	15	10
1994	10	6	13	11	26	18	15	10
1995	12	6	14	11	24	17	15	10
1996	12	6	14	10	26	17	15	10
1997	12	6	15	11	19	15	18	10
1998	12	6	16	12	23	16	14	9
1999	12	6	17	12	24	16	14	9

Table 2: Distribution of the spotter physicians (general practitioners) and sentinel stations per degree of urbanization in the years 1990-1999

degree of urbanization	1		2		3			
	rural municipalities[1]		urbanized rural municipalities together with municipalities with urban characteristics		municipalities with a population of 100 000 or more		Netherlands	
	number of		number of		number of		number of	
	GPs	sentinel stations	GPs	sentinel stations	GPs	sentinel stations	GPs	sentinel stations
1990	10	6	37	25	14	13	61	44
1991	10	6	39	25	14	12	63	43
1992	10	6	37	24	16	13	63	43
1993	10	6	38	26	17	13	65	45
1994	9	7	41	29	14	9	64	45
1995	10	7	42	28	13	9	65	44
1996	10	7	43	27	14	9	67	43
1997	10	7	43	27	11	8	64	42
1998	11	8	44	28	10	7	65	43
1999	10	7	47	29	10	7	67	43

1) From 1994 the new criterion of degree of urbanization as used by the CBS has been applied in the breakdown of the sentinel stations.

THE PRACTICE POPULATIONS

In 1997 a census of the practice populations took place; these details have been used for processing with effect from 1-1-1998. In 1999 a new census took place. When the project was set up the aim was to take a sample of about 1% of the Dutch population. A geographical distribution (the above-mentioned province groups) was taken into account, as also a distribution of regions with various degrees of urbanization (degree of urbanization). An enquiry was held as to whether this aim is still being met. This proved broadly still to be so, as the following surveys demonstrate.
The Dutch population increased in 1998 by 106 033 inhabitants to 15 760 225 as on 1-1-1999.

Table 3: Comparison of the population of the practices of the spotter physicians with the total population of the Netherlands

			number of inhabitants of the Netherlands[4]	number of patients of sentinel stations[5] (with percentages)	
province group		A	1 648 303	25 079	(1.5%)
		B	3 283 690	37 443	(1.1%)
		C	6 980 659	47 610	(0.7%)
		D	3 847 582	35 522	(0.9%)
degree of		1	2 418 182	20 812	(0.9%)
urbanization		2	10 578 648	105 605	(1.0%)
		3	2 763 395	19 237	(0.7%)
sex	men		7 793 271	71 263	(0.9%)
	woman		7 966 954	74 391	(0.9%)
total			15 760 225	145 654	(0.9%)

Province group A (the northern provinces) is over represented. Province group C and the big cities are under represented.
With effect from the statistical year 1992 the Central Bureau of Statistics introduced a new criterion of urbanization: the address density of the surroundings.[1]

The percentages of the men and women of the population of the Netherlands coming under the sentinel stations, per age group, province group and degree of urbanization, are as follows.

age in years	province group								degree of urbanization						Netherlands	
	A		B		C		D		1		2		3			
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
0- 4	1.5	1.4	1.0	1.1	0.6	0.6	1.0	0.9	0.7	0.7	0.9	0.9	0.7	0.7	0.9	0.9
5- 9	1.5	1.5	1.2	1.2	0.6	0.6	1.0	0.9	0.8	0.8	1.0	1.0	0.6	0.7	0.9	0.9
10-14	1.4	1.5	1.1	1.2	0.6	0.6	0.9	0.9	0.8	0.9	1.0	1.0	0.7	0.7	0.9	0.9
15-19	1.5	1.6	1.0	1.0	0.7	0.7	0.9	0.9	0.9	0.9	1.0	1.0	0.7	0.7	0.9	0.9
20-24	1.6	1.9	1.1	1.2	0.7	0.9	0.9	1.0	0.9	1.1	1.0	1.2	0.6	0.8	0.9	1.1
25-29	1.8	1.9	1.3	1.3	0.7	0.8	1.0	1.0	1.0	1.0	1.1	1.2	0.7	0.9	1.0	1.1
30-34	1.6	1.8	1.2	1.2	0.6	0.7	1.0	1.0	0.9	0.8	1.0	1.1	0.7	0.8	0.9	1.0
35-39	1.7	1.6	1.2	1.2	0.6	0.7	1.0	0.9	0.8	0.8	1.0	1.0	0.6	0.7	0.9	0.9
40-44	1.5	1.4	1.1	1.1	0.6	0.7	1.0	0.9	0.8	0.8	1.0	1.0	0.6	0.7	0.9	0.9
45-49	1.6	1.6	1.1	1.0	0.7	0.7	0.9	0.9	0.8	0.8	1.0	1.0	0.7	0.7	0.9	0.9
50-54	1.3	1.3	1.1	1.1	0.6	0.6	0.8	0.9	0.8	0.8	0.9	0.9	0.6	0.6	0.8	0.9
55-59	1.4	1.4	1.1	1.1	0.6	0.7	0.8	0.8	0.8	0.9	0.9	0.9	0.6	0.7	0.9	0.9
60-64	1.5	1.5	1.2	1.2	0.7	0.7	0.8	0.8	0.9	0.9	1.0	1.0	0.8	0.7	0.9	0.9
65-69	1.2	1.3	1.2	1.1	0.7	0.8	0.8	0.9	0.9	0.9	1.0	0.9	0.7	0.8	0.9	0.9
70-74	1.3	1.3	1.2	1.1	0.7	0.9	0.8	0.9	0.9	0.9	0.9	1.0	0.7	0.7	0.9	0.9
75-79	1.3	1.2	1.1	1.0	0.7	0.8	0.7	0.7	1.0	0.9	0.9	0.9	0.7	0.7	0.9	0.9
80-84	1.2	1.3	1.2	1.0	0.7	0.7	0.8	0.9	1.0	1.0	1.0	1.0	0.6	0.7	0.9	0.9
≥ 85	1.5	1.2	1.3	1.0	0.8	0.8	0.8	1.0	1.1	1.0	1.1	1.0	0.7	0.7	1.0	0.9
total	1.5	1.5	1.1	1.1	0.7	0.7	0.9	0.9	0.9	0.9	1.0	1.0	0.7	0.7	0.9	0.9

SCOPE AND CONTINUITY OF THE REPORTING

Since 1975 the number of days reported annually per sentinel station and the number of days per week of all sentinel stations together have been examined and processed. In this an effort was made to follow the scope and continuity of the reporting. In general the spotter physicians state - or have someone state - whenever they cannot report (vacation, personal circumstances). In the case of a weekly return not being submitted in time, telephone contact is made.

The maximum number of days that can be reported depends on the number of weeks in the year in question and the number of sentinel stations. In 1999 it was 11 180 (52 weeks x 5 days x 43 sentinel stations). Table 4 shows the absolute numbers and the percentages.

Table 4: Maximum and actual number of reporting days per year

year	maximum number of days which can be reported	actual number of absolute	reported days percentage
1990	11 340	9 997	88.2%
1991	11 180	9 903	88 6%
1992	11 395	10 141	89 %
1993	11 700	10 269	87.8%
1994	11 700	10 227	87.4%
1995	11 400	9 900	86.5%
1996	11 180	9 663	86.4%
1997	10 920	9 340	85.5%
1998	11 395	9 733	85.4%
1999	11 180	9 500	85 %

The percentage of reporting days is somewhat lower in 1999 than in previous years. A breakdown by province and degree of urbanization may be seen in the following table. No great differences prove to exist.

The reporting in municipalities with more than 100 000 inhabitants is with 84.2% the lowest of the degree of urbanization groups. In the northern provinces the reporting with 92% is the highest of the province groups.

Per province group	Per degree of urbanization
A 92 %	1 88.7%
B 83.2%	2 84.2%
C 83.9%	3 84.6%
D 84.4%	

In Fig. 2 the weekly reporting in all sentinel stations can be found. This figure clearly shows the influence of public holidays. The average number of non-reporting days per week is 32 (maximum 43 x 5= 215).

Figure 2: The number of days registered in 1999 per week.

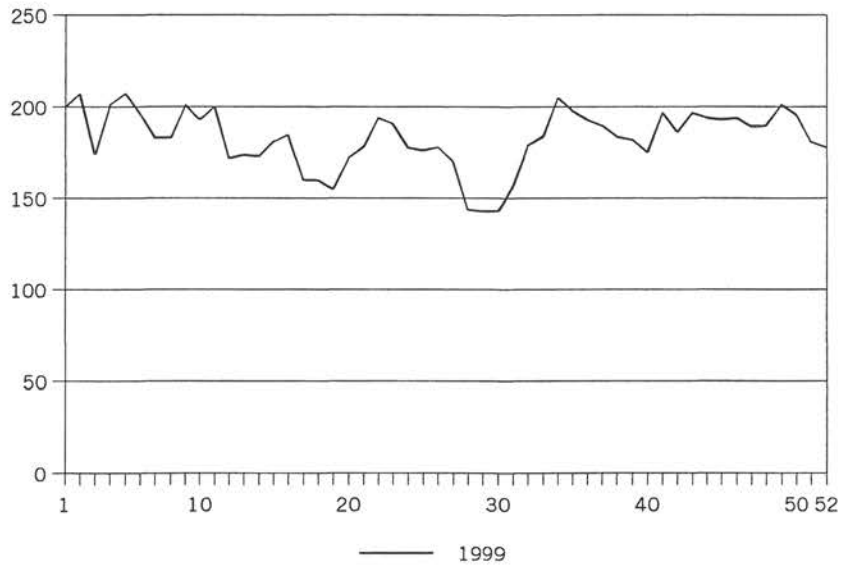


Table 5 presents the frequency distribution of the number of days not reported per sentinel station. The average number of non-reporting days per sentinel station in 1999 is 39 comparable to the number in 1998.
A breakdown into single and group practices shows a clear difference here, viz 47 and 25 days respectively. This is in line with the frequent assertion that forms of cooperation of general practitioners increase the continuity of reporting.

Table 5: Frequency distribution of the number of days not reported on per sentinel station

number of days not reported on	number of sentinel stations									
	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
≤ 0	2	1	2	3	4	3	4	3	3	3
1- 9	5	7	7	7	2	3	4	4	5	4
10-19	5	3	4	1	5	3	2	2	2	1
20-29	6	11	5	6	2	6	5	6	4	3
30-39	11	10	13	13	13	11	6	6	7	10
40-49	10	9	9	11	12	12	13	12	9	14
50-59	2	1	1	3	5	3	7	6	5	3
60-69	1	0	1	-	2	-	1	1	6	1
70-79	1	0	-	-	-	1	-	1	-	-
80-89	1	0	-	-	-	1	-	-	-	1
90-99	0	0	-	-	-	-	-	-	1	1
≥ 100	0	1	1	1	-	1	1	1	1	2
total number of sentinel stations	44	43	43	45	45	44	43	42	43	43
average	32	30	29	32	32	35	35	37	39	39
median	33	29	33	34	37	37	40	40	40	40

Further study of this table shows fairly constant reporting over the years. A major failure to report, i.e. more than 50 days per sentinel station, occurs in nearly 19% of the sentinel stations in 1999. This is similar to the percentage in 1998. Illness of the spotter physician is the commonest reason for not reporting for a length of time.

THE WEEKLY RETURN (Appendix 2, p. 118)

The questions on the weekly return for 1999 were composed as follows; it is stated in brackets in which year the topics were added to the return.

1. Influenza(-like illness) (1970);
2. Medical aids (1999)
3. Dog Bites (1998);
4. Herpes zoster (1997);
5. Sterilization of man (1972);
6. Sterilization of woman (1974);
7. (Attempted) suicide (1979);
8. Out-patient mammography (1988);
9. Urethritis of the man (1992);
10. Concern about AIDS (1988);
11. Physical violence (1996);
12. Gastro-enteritis (1996);
13. Prostate trouble (1997);
14. Whooping cough (1998).

The basis in principle is weekly reporting, which means that patients seen by the locum in a "free weekend" are reported as well (influenza excluded). Diagnoses made or advice given by telephone are not entered in the weekly return in principle; here too influenza is an exception.

The subjects in alphabetical order can be found in Appendix 3 (p. 119-120) together with the years of registration.

PROCESSING OF THE DATA ON THE WEEKLY RETURN

This report contains the results of the weekly return for 1999. The data were processed at the NIVEL.

Three tables are produced on a routine basis:

1. the absolute number of patients by sex and age group;
2. the absolute number of patients by sex and province group;
3. the absolute number of patients by sex and degree of urbanization.

Tables 1, 2 and 3 are produced per week on behalf of the surveillance and per quarter and per year on behalf of the reporting. Moreover, Table 1 is also produced every quarter per sentinel station for the convenience of the participating physicians.

With the exception of the information furnished per sentinel station, the data are likewise expressed per 10 000 of the total practice population (relative frequencies). The frequencies are given in round figures. In the case of frequencies of under 0.5 per 10 000 inhabitants, the figure is rounded off to '0'. When no cases at all have been reported, this is indicated by '-'. A frequency that is based on fewer than 5 reports is put between brackets.
When the frequency of new cases of a disease in a given period is concerned, one speaks in epidemiology of incidence; if, on the other hand, all existing cases of that disease in a given period or at a given moment in time are concerned, that is designated as prevalence. There is also a subdivision into absolute and relative incidence or prevalence.
In this report the incidence or prevalence is in all cases calculated per 10 000 inhabitants or men or women. So as to be able, if desired, to calculate absolute numbers for the Netherlands, in Appendix 4 (page 139) the age structure as on 1 January 1999 is given.

When a sentinel station does not report over the whole week (sickness, vacation, etc.), this is mentioned. The data from the physicians who have reported on 0, 1 or 2 days of the week are not processed, while the populations of these practices are not included in the calculation of the frequencies. The data from the practices that have reported on more than 2 days of the week are processed.
Until 1978 a correction factor was applied to this. Consideration of the number of times it was applied showed that the influence on the total was so small that this correction has been done away with effect from 1 January 1978. Moreover, enquiries among the spotter physicians revealed that in the cases of 1 or 2 days

absence the work was simply moved to a later date.
The returns are built up from the weekly return figures, the frequencies being calculated on the active population present in a week.
This annual report will not attempt to give a complete analysis of the material, as already mentioned in the introduction.

The following annual tables are included (page 123-128).

1. Cumulative, all sentinel stations standardized. Year 1998, week 01-52, p. 1-3.[6]
2. Province group standardized by syndrome. Year 1998, week 01-52, p.1-3.[6]
3. Degree of urbanization standardized by syndrome. Year 1998, week 01-52, p. 1-3.[6]

INFLUENZA(-like illness)

Influenza[7] is the only subject to have appeared on the weekly return since the start of the sentinel station project. The data on this subject are regularly distributed and used at international level. As soon as an increase in the incidence is noted, the numbers are reported weekly to the WHO in Geneva, together with virological and serological results. In this way the Netherlands participates in the worldwide influenza surveillance.

Every year, from week 40 onwards, the weekly incidence of influenza-like illnesses is reported to the European Influenza Surveillance Scheme (EISS, www.eiss.org). The results of influenza tests done on nose/throat swabs taken by spotter physicians are reported to EISS by the RIVM.

Influenza 1998/1999 and 1999/2000

1998/1999 season

Figures 3.1-3.3 give the number of cases of influenza-like illness per 10 000 inhabitants per week for the Netherlands and by province group and degree of urbanization for the 1998/1999 season.[8] Figures 4.1-4.3 give the number of cases for the 1999/2000 season. The progress of influenza-like illness in the first weeks of 1998 was already discussed in the 1999 report.

The trend of influenza activity during this season may be described as unusual. In the first place there were clearly two successive waves of influenza. As a result, the period with significantly increased influenza activity was longer than usual. The peak incidence in an absolute sense was not exceptionally high: 23 per 10 000 inhabitants in week 8 of 1999.
In week 47 of 1998 the first influenza virus of the season was isolated: an influenza B virus. In the weeks thereafter the number of influenza B viruses from the practices of the spotter physicians increased. In week 49 the incidence clearly increased for the first time.
From week 50 onwards influenza A viruses were also isolated, though clearly less in number than the influenza B viruses. After week 2 of 1999 the influenza A virus got the upper hand. Both the influenza A(H_3N_2) and the influenza B virus were active for a lengthy period in the season. It is also unusual that the influenza B virus was already present so early in the season.

Figure 3.1 Number of patients with influenza(-like illness) per week and per 10 000 inhabitants, for the Netherlands, 1998/1999

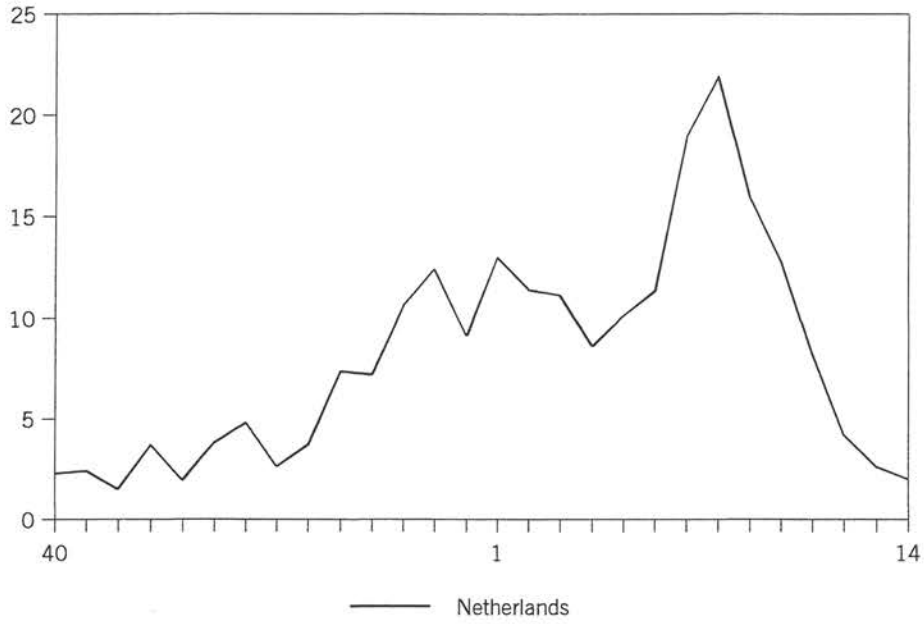


Figure 3.2 Number of patients with influenza(-like illness) per week and per 10 000 inhabitants, per degree of urbanization, 1998/1999

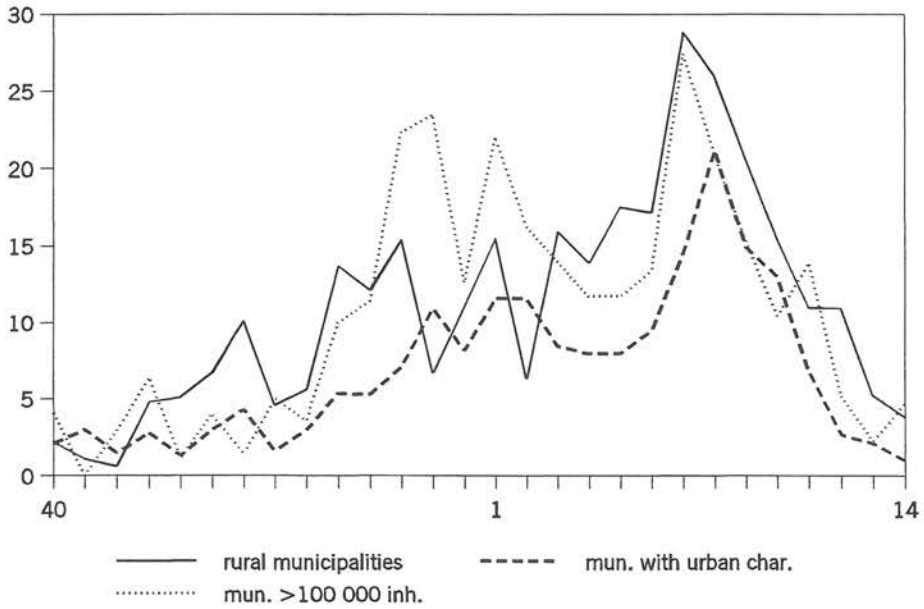
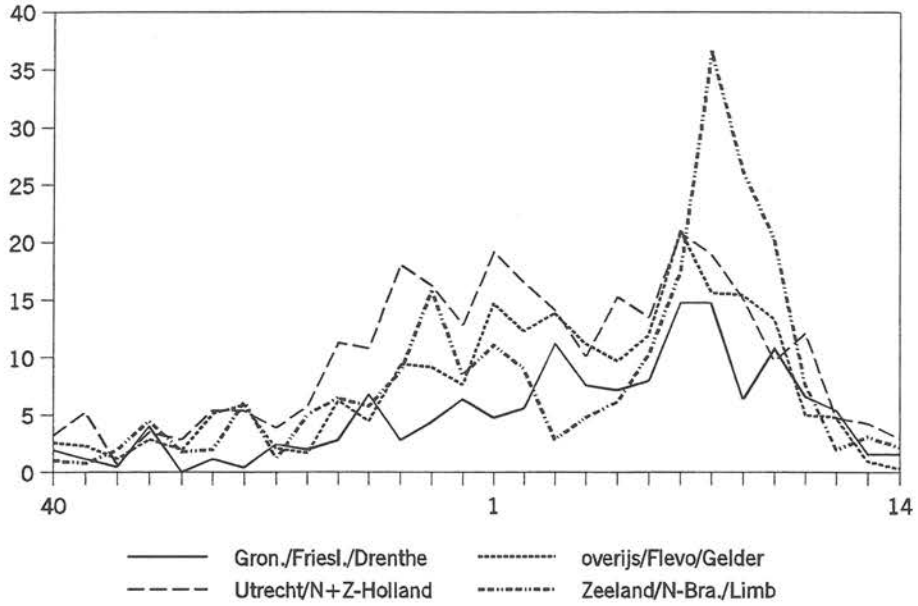


Figure 3.3 Number of patients with influenza(-like illness) per week and per 10 000 inhabitants, per province group, 1998/1999



1999/2000 season

Figure 4.1 Number of inhabitants with influenza(-like illness) per week and per 10 000 inhabitants, for the Netherlands, 1999/2000

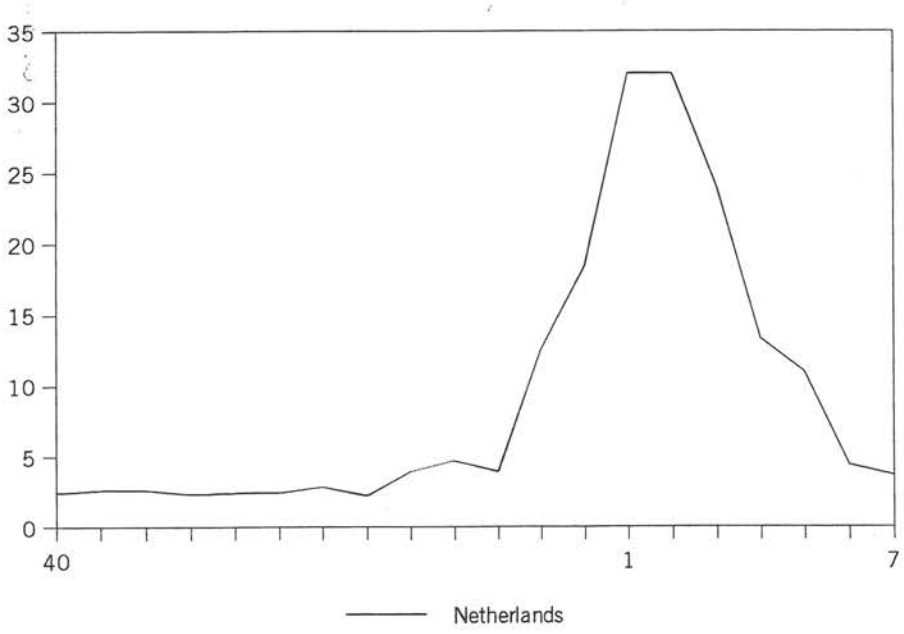


Figure 4.2 Number of inhabitants with influenza(-like illness) per week and per 10 000 inhabitants, per degree of urbanization, 1999/2000

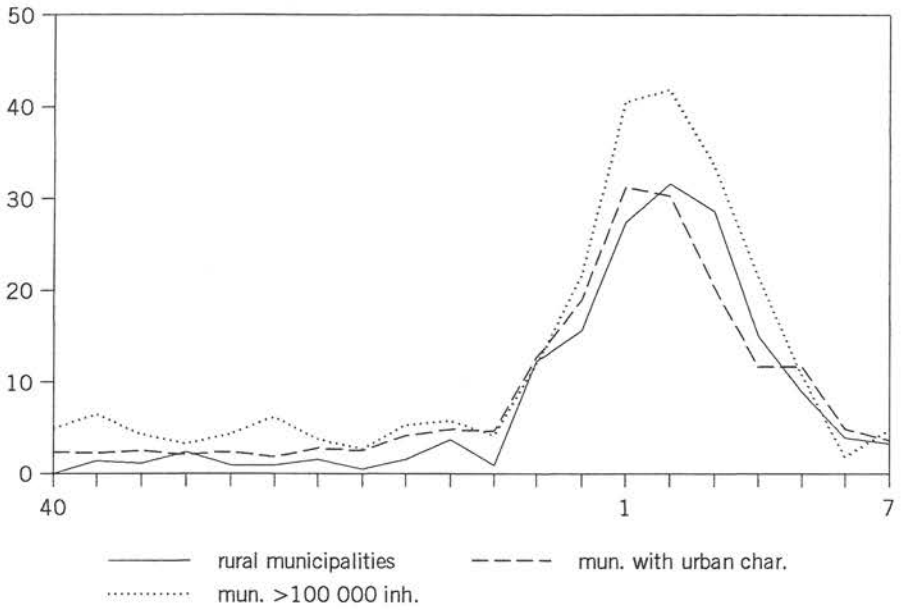
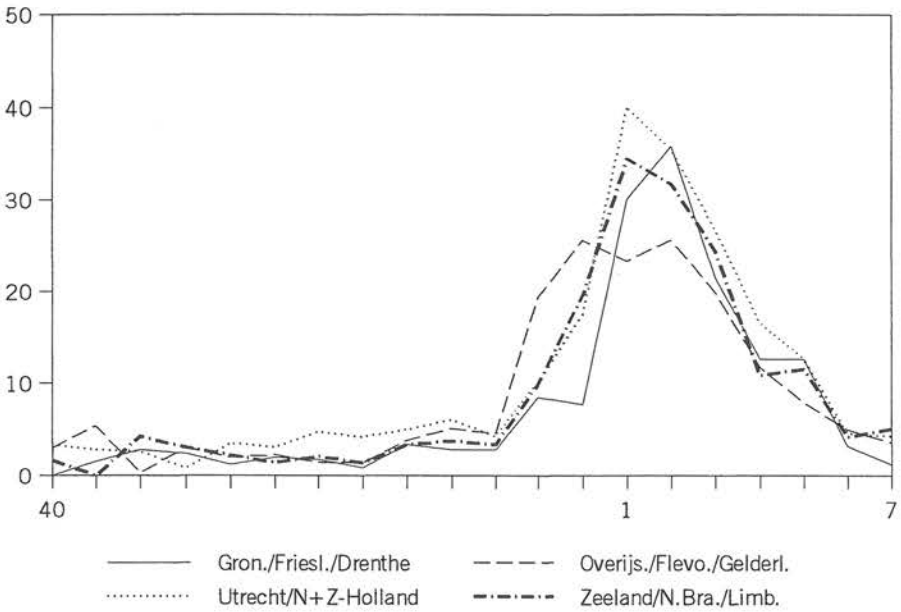


Figure 4.3 Number of inhabitants with influenza(-like illness) per week and per 10 000 inhabitants, per province group, 1999/2000



1999/2000 season

The National Influenza Centre in Rotterdam received the first influenza virus isolates of the 1999-2000 season in week 40. The viruses were of the influenza A type, subtype H_3N_2. These viruses closely resembled the vaccine strain for this subtype, A/Sydney/5/97. The sporadic influenza A isolates in the weeks that followed were also of this subtype.

A sentinel station physician sent in the first influenza virus detected in a throat/nose swab in week 45. It became clear that an influenza epidemic was imminent when the number of influenza A isolates detected at the sentinel practices increased from week 47 onward. By week 51 the number of cases of influenza-like illnesses reported had risen above 10 per 10 000 inhabitants.

The isolated viruses were influenza A (H_3N_2)viruses, which did not differ significantly from the vaccine strain for this subtype.

The highest incidence of the season, 32 cases per 10 000 inhabitants, was recorded in weeks 1 and 2 of 2000. The western provinces of the Netherlands were worst affected; in that area 40 cases per 10 000 inhabitants were recorded. In week 2, the large cities reported the most cases: 42 per 10 000 inhabitants.

The duration of the epidemic was average, i.e. 8 weeks.

Table 6: Number of patients with influenza(-like illness), per 10 000 inhabitants, 1990-2000

year	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
total per calendar year	225	348	244	484	107	315	155	233	248	254	
highest weekly incidence per "season"	24	40	27	54	16	39	29	17	23	32	

Influenza and influenza-like illnesses in Europe in the 1999/2000 season

Influenza A (H_3N_2) was dominant in all the participating countries of the European Influenza Surveillance Scheme during the 1999/2000 season. The records show that the virus was most active in December 1999 and January 2000. Influenza A(H_1N_1) viruses were isolated sporadically in every country but Spain. Influenza B was mainly active in England and Wales, particularly towards the end of the period.

This topic will remain on the weekly returns.

PUBLICATION ON THE BASIS OR PARTLY ON THE BASIS OF DATA FROM THE CONTINUOUS MORBIDITY REGISTRATION

RIMMELZWAAN, G.F., J.C. DE JONG, A.I.M. BARTELDS, J.W. DORIGO-ZETSMA, R.A.M. FOUCHIER EN A.D.M.E. OSTERHAUS.

The influenza season 1998/'99; vaccine composition for 1999/2000

Epidemiologische mededeling, Ned. Tijdschr. Geneeskunde, 1999; 143(40); 2015-18

The first indication of influenza activity in the Netherlands in the 1998/'99 season was the isolation of an influenza B virus in week 47 of 1998. In subsequent weeks influenza activity slowly increased, reaching a peak in week 6 of 1999. After a gradual decline for three week a second peak was reached in week 8 of 1999. The first wave of influenza activity was primarily caused by influenza B viruses, whereas during the second wave predominantly influenza A viruses of the A/H_3N_2 subtype were isolated. The antigenic properties of the influenza A viruses resembled those of the viruses isolated in the previous season and the vaccine strain A/Sydney/5/97. The influenza B viruses did not completely match with B/Harbin/7/94 which is most commonly used for vaccine production. The vaccine, however, did provide good protection against the epidemic strains of influenza. This season influenza A/H_1N_1 viruses did not play a significant part and only a small number of viruses of this subtype were isolated at the end of the season. For the influenza season 1999/2000 it is recommended by the World Health Organization that the vaccines contain the following (or similar) virus strains: A/Sydney/5'97 (H_3N_2), A/Beijing/262/95 (H_1N_1) and B/Beijing/184/93.

FLEMING, D.M., M. ZAMBON, A.I.M. BARTELDS, J.C. DE JONG.

The duration and magnitude of influenza epidemics: A study of surveillance data from sentinel general practices in England, Wales and the Netherlands

Eur. J. of Epid., 1999; 467-473

Weekly incidence data for influenza-like illness, routinely collected in sentinel general practices in England and Wales and in the Netherlands over 10 winter periods (week 37 in one year to week 20 in the next, 1987/1988-1996/1997) were examined in conjunction with matching virus isolate data to define epidemic periods of influenza in the two countries. We first defined the background rates of recording influenza-like illness which occurred at times when only sporadic or no isolations of virus were reported. The background rates were similar in the two networks with mean weekly incidence in England and Wales of 28.1 per 100,000 (all ages) and in the Netherlands 29.8. Epidemic periods defined as lying above the upper 95% confidence level of the background rate lasted on an average of about 10 weeks. Once epidemics were recognised, peak incidence was generally achieved within 4 weeks. The excess population (all ages) consulting general practitioners during influenza epidemic periods was calculated and background incidence rates expressed as a percentage of the total population. In the 10 periods surveyed, the percentage of the population consulting and diagnosed with influenza-like illness in England and Wales ranged from 0.4% in 1991/1992 to 1.7% in 1989/1990 and the Netherlands from 0.5% in 1990/1991 to 2.1% in 1989/1990. The duration and epidemic periods were broadly similar in the two countries through the excess consulting population during the 10 epidemics studies averaged 0.85% in England and Wales compared with 1.39% in the Netherlands. There were substantial differences between the two countries in the impact of

influenza in individual years, as measured in the consulting population even though the predominant virus (sub)type were similar.

ALBERT, J. DE NEELING, WILFRED VAN PELT, CEES HOL, ERIC E.J. LIGTVOET, LUC J.M. SABBE, AAD BARTELDS AND JAN D.A. VAN EMBDEN.
Temporary Increase in Incidence of Invasive Infection Due to Streptococcus pneumoniae in the Netherlands
CID 1999; 29, December; 1579-80

WILBRINK, B., J.W. DORIGO-ZETSMA, A.I.M. BARTELDS, M.J.W. SPRENGER, M.L.A. HEIJNEN.
Surveillance of respiratory pathogens and influenza-like illnesses in general practices in the Netherlands in winter 1998/'99.
European Society for Clinical Virology, Budapest, Sept, 1999.

DORIGO-ZETSMA, J.W.
Respiratoire infecties in Nederland: voorlopige resultaten NIVEL/RIVM surveillance winter 1998/99.
Infectieziekten Bulletin, 1999, jaargang 10 nr. 6

WILBRINK, B., J.W. DORIGO-ZETSMA.
Respiratoire infecties in Nederland: Moleculaire diagnostiek.
Infectieziekten Bulletin, 1999, jaargang 10 nr. 4; 75-78

HEIJNEN, M.L.A., A.I.M. BARTELDS, G.F. RIMMELZWAAN, J.W. DORIGO-ZETSMA, J.C. DE JONG, M.J.W. SPRENGER.
Respiratoire infecties in Nederland: Update influenza en respiratoire syncytieel virus in winter 1998/99.
Infectieziekten Bulletin, 1999, jaargang 10 nr. 2; 81-94

HEIJNEN, M.L.A., J.W. DORIGO-ZETSMA, A.I.M. BARTELDS, B. WILBRINK, M.J.W. SPRENGER.
Surveillance of respiratory pathogens and influenza-like illnesses in general practices. The Netherlands, winter 1997/98.
Eurosurveillance vol.4- no. 7/8 1999

BESTEBROER, T.M., A.I.M. BARTELDS, M.F. PEETERS, A.C. ANDEWEG, J.J. KERSSENS, K. BIJLSMA, G.F. RIMMELZWAAN, T.G. KIMMAN, C. VERWEIJ EN J.C. DE JONG
Virological NIVEL/RIVM surveillance of respiratory virus infections in the 1996/97 season
RIVM, 1999, Report no. 245607 005

TJHIE, JEROEN H.T., R. ROOSENDAAL, A.J.C. VAN DEN BRULE, T.M. BESTEBROER, J.C. DE JONG, M.J.W. SPRENGER, A.I.M. BARTELDS, C.M.J.E. VANDENBROUCKE-GRAULS.
PCR Detection of chlamydia pneumoniae and mycoplasma pneumonia in children with upper respiratory tract infections in general practices in the Netherlands during 1992-1997.
Proc. Of the 9th Int. Symp. on Hum. Chlamydia Inf., 1998. San Francisco CA, 9410 blz. 51-54

BESTEBROER, T.M., A.I.M. BARTELDS, A.C. ANDEWEG, K. BIJLSMA, E.C.J. CLAAS, T.G. KIMMAN, C. VERWEIJ EN J.C. DE JONG.
Virologische NIVEL/RIVM-surveillance van respiratoire virusinfecties in het seizoen 1995/96.
RIVM, 1996, Rapport nr. 254607003

BESTEBROER, T.M., A.I.M. BARTELDS, A.M. VAN LOON, H. BOSWIJK, K. BIJLSMA, E.C.J. CLAAS, J.A.F.W. KLEIJNE, C. VERWEIJ, M.W. VERWEIJ-UITERWAAL, A.G. WERMENBOL, J.C. DE JONG.
Virologische NIVEL/RIVM-Surveillance van respiratoire virusinfecties in het seizoen 1994/95.
RIVM, 1995, Rapport nr. 245607002

JONG DE J.C., A.I.M. BARTELDS, T.M. BESTEBBROER, K. BIJLSMA, C. VERWEIJ, M.W. VERWEIJ-UITERWAAL, A.G. WERMENBOL EN A.M. VAN LOON
Virologische NIVEL/RIVM Surveillance van respiratoire virusinfecties in het seizoen 1993/94.
RIVM, 1994, Rapport nr. 243614002

JONG DE J.C., A.I.M. BARTELDS AND A.M. VAN LOON.
Virological NIVEL/RIVM surveillance of influenza-like illnesses (ILI) in the 1992/93 season.
RIVM, 1993, rapport nr. 243614001

JONG DE J.C., E.C.J. CLAAS, A.I.M. BARTELDS, K. BIJLSMA, G.F. RIMMELZWAAN EN A.D.M.E. OSTERHAUS.
Het influenzaseizoen 1995/96: een epidemie met een verborgen staart
Infectieziekten Bulletin, 1996, jaargang 7 nr. 5

JONG DE J.C. E.C.J. CLAAS, A.I.M. BARTELDS.
Influenza 1994/95: een carnavalsstorm in een glas bier.
Infectieziekten Bulletin, 1995, jaargang 6, nr. 3

JONG DE J.C., A.I.M. BARTELDS, A.D.M.E. OSTERHAUS.
Influenza 1993/94: De herfstepidemie.
Infectieziekten Bulletin, 1994, jaargang 5, nr. 1

JONG DE J.C., T.M. BESTEBROER, A.I.M. BARTELDS, A.C. ANDEWEG, M.F. PEETERS, T.G. KIMMAN, K. BIJLSMA, C. VERWEIJ, E.C.J. CLAAS AND A.D.M.E. OSTERHAUS.
Respiratory Infections in General Practices
Abstract voor de vergadering van de European Society for Clinical Virology van 30 augustus tot 2 september 1998 in Hamburg.

BESTEBROER, T.M., A.I.M. BARTELDS, K. BIJLSMA, H. BOSWIJK, C. VERWEIJ, M. VERWEIJ, AND J.C. DE JONG.
Surveillance of respiratory pathogens in general practices in the Netherlands in 1994/95.
RIVM, 1995; poster for the meeting of the Federation of European Microbiological Societies

CLAAS, C.J. ERIC, JAN C. DE JONG, AAD I.M. BARTELDS e.a.
Influenza types and patient population.
Letter to the Lancet: 1995, Vol 346, No. 8968, p. 180.

SPRENGER, M.J.W., P.G.H. MULDER, W.E.P. BEGER AND N. MASUREL.
Influenza: Relation of Morbidity Parameters-Netherlands, 1970-1989.
Inter. Jour. of Epid., 1991, vol. no. 4, p. 1118-1124

SPRENGER, M.J.W.
The impact of influenza.
Thesis Rotterdam 1990

NIEUWSBRIEF Influenza Surveillance 1992-1993. Uitgave NIC, NIVEL, RIVM en GHI. Uitgebracht door NIC, 1992-1993
NIEUWSBRIEF Influenza Surveillance 1993-1994. Uitgave NIC, NIVEL, RIVM en GHI. Uitgebracht door NIC, 1993-1994
NIEUWSBRIEF Influenza Surveillance 1994-1995. Uitgave NIC, NIVEL, RIVM en GHI. Uitgebracht door NIC, 1994-1995
NIEUWSBRIEF Influenza Surveillance 1995-1996. Uitgave NIC, NIVEL, RIVM en GHI. Uitgebracht door NIC, 1995-1996
NIEUWSBRIEF Influenza Surveillance 1996-1997. Uitgave NIC, NIVEL, RIVM en GHI. Uitgebracht door NIC, 1996-1997
NIEUWSBRIEF Influenza Surveillance 1997-1998. Uitgave NIC, NIVEL, RIVM en GHI. Uitgebracht door NIC, 1997-1998
NIEUWSBRIEF Influenza Surveillance 1998-1999. Uitgave NIC, NIVEL, RIVM en GHI. Uitgebracht door NIC, 1998-1999
NIEUWSBRIEF Influenza Surveillance 1999-2000. Uitgave NIC, NIVEL, RIVM en GHI. Uitgebracht door NIC, 1999-2000

EPIDEMIOLOGICAL REPORTS

CLAAS, E.C.J., A.I.M. BARTELDS, J.W. DORIGO-ZETSMA, G.F. RIMMELZWAAN, J.C. DE JONG EN A.D.M.E. OSTERHAUS.
Het influenzaseizoen 1997/'98 en de vaccinsamenstelling voor 1998/'99.
Epidemiologische mededeling, Ned Tijdschr Geneeskunde, 1998; 142(44) : 2423-7

RIMMELZWAAN, G.F., J.C. DE JONG, A.I.M. BARTELDS, E.C.J. CLAAS, J.K. VAN WIJNGAARDEN EN A.D.M.E. OSTERHAUS.
Influenza in het seizoen 1996/'97; vaccinsamenstelling voor het seizoen 1997/'98.
Ned Tijdschr. Geneesk., 1997, 141: 1743-7

CLAAS, E.C.J., J.C. DE JONG, A.I.M. BARTELDS, G.F. RIMMELZWAAN, J.K. VAN WIJNGAARDEN EN A.D.M.E. OSTERHAUS.
Influenza in het seizoen 1995/'96; vaccinsamenstelling voor het seizoen 1996/'97.
Ned. Tijdschr. Geneesk., 1996, 140: 2047-0

CLAAS, E.C.J., J.C. DE JONG, A.I.M. BARTELDS, G.F. RIMMELZWAAN, J.K. VAN WIJNGAARDEN EN A.D.M.E. OSTERHAUS.
Influenza in het seizoen 1994/'95; vaccinsamenstelling voor het seizoen 1995/'96.
Ned. Tijdschr. Geneesk., 1995, 139: 2154-8

CLAAS, E.C.J., J.C. DE JONG, A.I.M. BARTELDS, J.K. VAN WIJNGAARDEN, N. MASUREL EN A.D.M.E. OSTERHAUS
Influenza in het seizoen 1993/'94; vaccinsamenstelling voor het seizoen 1994/'95.
Ned. Tijdschr. Geneesk., 1994, 138: 1966-9

MASUREL, N., A.I.M. BARTELDS, A.M.J.W. BAARS, J.K. VAN WIJNGAARDEN EN E.C.J. CLAAS.
Influenza in het seizoen 1992/'93; vaccinsamenstelling voor het seizoen 1993/'94.
Ned. Tijdschr. Geneesk.137: 1987-0

EISS-PUBLICATIONS

SNACKEN, R., J.C. MANUGUERRA, P. TAYLOR.
European Influenza Surveillance Scheme on the Internet.
Meth. Inform Med, 1998, 37: 266-70

ZAMBON, M.
Sentinel surveillance of influenza in Europe, 1997/1998.
Eurosurveillance Vol, 3, no 3 March 1998

FLEMING, D., J.M. COHEN.
Experience of European Collaboration in influenza surveillance in the winter 1993/94.
Publ Health Medicine, 1996; 18: 133-142

SNACKEN, R., M. BENSADON, A. STRAUSS.
The CARE Telematics Nerwork for the surveillance of influenza in Europe.
Meth Inform Med, 1995; 34: 518-22

SUBMITTED:

FLEMING, D.M., M. ZAMBON, A.I.M. BARTELDS.
Population estimates of persons presenting to general practitioners with influenza-like illness, 1987-1996.
J. Epid. and Inf., 1999

PRESCRIPTIONS FOR MEDICAL AIDS BY GENERAL PRACTITIONERS

In recent years, medical aids have been receiving increasing attention, due in part to socio-demographic and technological developments. The public authorities are examining the possibilities for replacing hospital care with home care. Thanks to the use of medical aids, people in need of care can continue to live independently at home. As a result of technological developments, ever more new and improved medical aids are becoming available on the market.

The costs of medical aids have increased by a greater percentage in recent years than the total costs of health care. The cost of extramural medical aids rose by more than 11% a year between 1990 and 1995. Rising costs have made it necessary to develop policy measures. The lack of information about the scope and the effects of the use of medical aids poses a significant problem, as does the lack of insight into the indications for the prescription of medical aids.

GP's have an important role to play in prescribing medical aids in extramural health care. Gaining insight into that role would provide invaluable information about the scope of and variation in the use of medical aids. In most cases, the 1996 Medical Aids Regulations govern the provision of medical aids by the general practitioners. These regulations stipulate the conditions and grounds that determine whether a patient has a right to a particular medical aid. In many cases health insurers, by virtue of these regulations, require the prescribing physicians to provide a description of the diagnosis.

It is not only GPs who can take the initiative to apply for medical aids. A patient's family or other assistants, such as district nurses, orderlies, physiotherapists and occupational therapists, may request medical aids as well.

The following research questions have been formulated to gain insight into the role of the GP:

1. Which medical aids are prescribed by GPs and how often?
2. Which conditions do GPs prescribe medical aids for and which medical aids do they prescribe?
3. Who initiates the prescription?
4. Do GPs justify prescriptions by stating the indication for the prescription, and if so, for which medical aids?

This report only addresses the first research question. It discusses the categories of medical aids prescribed by GPs and the frequency of prescription.

The following categories of medical aids are distinguished in the weekly returns:
- medical aids worn on the body (prostheses/ortheses, wigs, support stockings, shoe accessories, hearing aids and any other care articles)
- medical aids in support of regular daily activities (rollators and other walking equipment, adapted furniture etc.)
- medical aids required for medical treatment/care (syringes, portable external infusion pump, nutritional preparations, diabetes aids, exhalation equipment etc.).

GPs are asked to report the patient to whom a medical aid is prescribed and to fill in the supplementary questionnaire.

More extensive reporting, in which all the research questions are addressed, takes place elsewhere (Nivel, M. Biermans and Dr.E. van den Ende).

Table 7 shows the number of people to whom a medical aid was prescribed by province and by degree of urbanization. The third column presents the average figure for the Netherlands as a whole

Table 7: Number of people in 10 000 to whom a medical aid was prescribed by province group and by degree of urbanization and for the Netherlands.

	province group				degree of urbanization			Netherlands
medical aid:	A	B	C	D	1	2	3	
worn on the body	111	93	143	73	127	107	92	108
in support of regular daily activities	33	40	47	19	39	35	42	36
necessary for medical treatment	24	59	27	19	42	32	25	32

In the group of southern provinces, medical aids are prescribed to far fewer people than elsewhere in the Netherlands. However, these data should be interpreted cautiously, if only because there is a significant degree of variation in the rules for prescribing the various medical aids; rules which GPs are not always familiar with. Medical aids are prescribed for a large number of disorders and a wide range of situations.

Age groups

Table 8 shows the number of people in 10 000 to whom a medical aid was prescribed by age group.

Table 8: Number of people to whom a medical aid was prescribed by age group in 1999.

Age group	medical aid		
	worn on the body	in support of regular daily activities	necessary for medical treatment
<1	(8)	-	42
1- 4	(6)	-	14
5- 9	27	-	21
10-14	15	7	11
15-19	16	(5)	17
20-24	33	(2)	6
25-29	23	4	12
30-34	47	9	13
35-39	36	(4)	15
40-44	81	10	17
45-54	68	(4)	25
50-54	89	14	27
55-59	130	32	29
60-64	137	24	50
65-69	203	47	61
70-74	305	87	111
75-79	550	262	147
80-84	729	481	166
> 85	1128	617	206

The table shows that medical aids are prescribed most frequently to the elderly. The percentage of people who are prescribed a medical aid worn on the body (prosthesis/ orthesis, support hose, shoe accessory, orthopaedic shoes, hearing aid, sight-improvement aid or other care article) is 1.3 for the 55-59 age group and rises to 11.3 for the over-85s. Medical aids in support of regular daily activities are also prescribed increasingly with age. The increase in prescriptions for medical aids required for medical treatment, such as syringes, nutritional preparations, diabetes aids etc., is less dramatically associated with age.

The topic was not retained in this form in the weekly returns for 2000, which focussed exclusively on medical aids prescribed for incontinence.

MAMMOGRAPHY

In 1987 both the Gezondheidsraad (Health Council) and the Nationale Raad voor de Volksgezondheid (National Council for Public Health) issued a positive recommendation with respect to nationwide screening for breast cancer by means of mammography. The State Secretary for Health responded by provisionally deciding in favour of introducing nationwide screening from 1990. The definitive positive decision was taken on 29 April 1993. By the beginning of 1994, 40 of the 43 planned screening centres were operational. The national screening programme for women in the 50-69 age group covered the entire country by the spring of 1998. Women in the 70-74 group have been invited (in phases) since 1998.

There are no accurate figures indicating the number of mammographs performed in Dutch hospitals annually. Even less is known about the medical grounds for requesting the tests.

The erratic nature of the screening programme, in terms of both the area and the age groups covered, has been resolved now that the programme has been implemented throughout the country, and has been extended to include 70-75-year-olds.
The data provided by the CMR Sentinel Stations will be used to chart the need for opportunistic screening by monitoring:

- the number of mammographs requested by GPs for the age categories under 50 and over 69 (74, since 1998);
- the number of mammographs requested by GPs for women in the 50-69 (74, since 1998) age category, outside the nationwide screening programme.

The point of registration is to determine the scope of mammographic diagnosis requested by GPs. A distinction is drawn between first and repeat mammograms. In the nationwide breast cancer screening programme, screening rounds are separated by two-year intervals. The same interval is maintained in this registration procedure. Taking this into consideration, the criterion for distinguishing between a first and a repeat examination is whether the woman concerned has had a mammogram made since 1-1-1998. If a woman has had a mammogram made at any point since 1-1-1998 and then has another one made, the second mammogram should be registered under the subheading 'repeat examination'.

It is not important whether during the examination photographs are taken in different directions along with any supplementary enlargements or close-ups. The total examination is registered as one examination. Nor is it important whether a mammogram is made of one or both breasts.

The data of this registration are made available to the group that in 1987-1990 performed the investigation into the costs and effects of mass screening for breast cancer for the Ministry of Public Health, Welfare and Sport (Project leader Prof. Dr P.J. van der Maas, Social Health Care Institute, Erasmus University, Rotterdam.)[9] The same group is evaluating the actual cost and effects.

Table 9 gives the numbers of mammograms requested by the GP outside mass screening per province and degree of urbanization and for the Netherlands (cf. Figs 5 and 6).

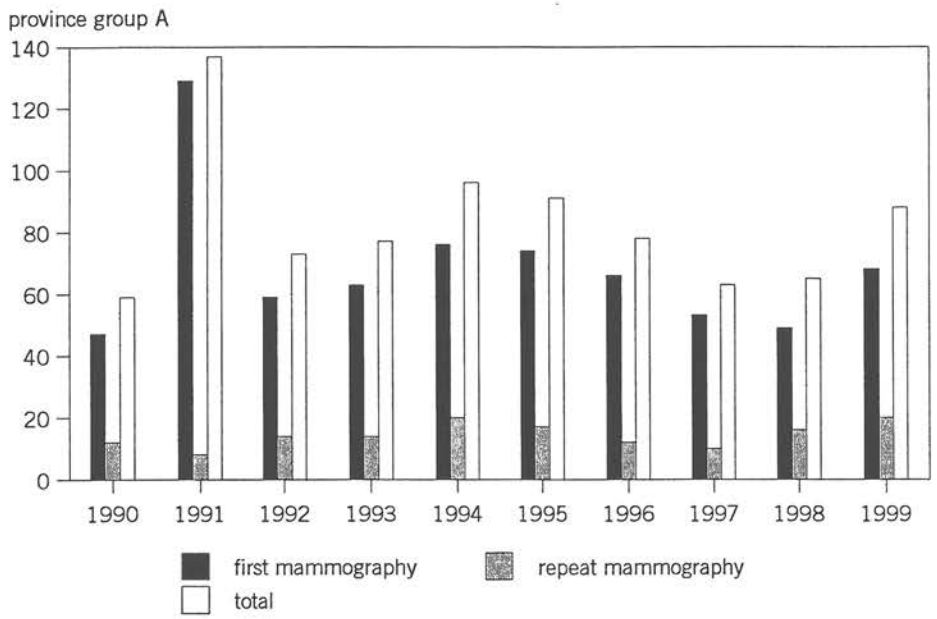
Table 9: Number of mammograms requested by the GP per province and degree of urbanization and the Netherlands per 10 000 women in 1990-1999

	province group				degree of urbanization			Netherlands
	A	B	C	D	1	2	3	
first mammography								
1990	47	102	88	125	102	87	101	92
1991	129	100	93	112	103	92	142	105
1992	59	80	105	101	87	95	90	93
1993	63	93	155	106	105	129	96	117
1994	76	110	116	128	97	119	101	111
1995	74	133	104	104	124	96	124	104
1996	66	120	70	97	104	87	73	87
1997	53	95	95	94	88	83	101	87
1998	49	90	82	108	81	90	61	84
1999	68	105	115	94	93	97	115	99
repeat mammography								
1990	12	34	14	16	43	13	10	17
1991	8	50	25	20	54	22	20	26
1992	14	53	34	18	61	25	28	30
1993	14	62	99	17	72	72	23	59
1994	20	78	45	32	67	44	34	45
1995	17	90	30	23	63	36	35	39
1996	12	77	21	25	45	33	22	32
1997	10	83	15	32	70	30	16	34
1998	16	80	24	24	24	43	17	36
1999	20	72	23	28	38	37	25	36

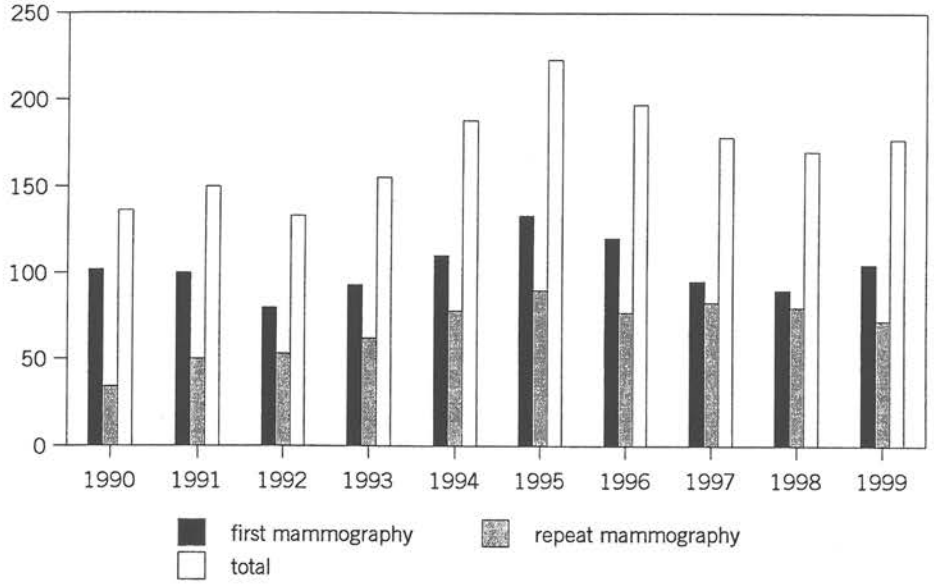
Table 9: Number of mammograms requested by the GP per province and degree of urbanization and the Netherlands per 10 000 women in 1990-1999(continuation)

		province group				degree of urbanization			Netherlands
		A	B	C	D	1	2	3	
total	1990	59	136	102	141	145	100	111	109
	1991	137	150	118	132	157	114	162	131
	1992	73	133	139	119	148	120	118	123
	1993	77	155	254	123	177	201	119	176
	1994	96	188	161	160	164	163	135	156
	1995	91	223	134	127	187	132	159	143
	1996	78	197	91	122	149	120	95	109
	1997	63	178	110	126	158	113	117	121
	1998	65	170	106	132	105	133	78	120
	1999	88	177	138	122	131	134	140	135

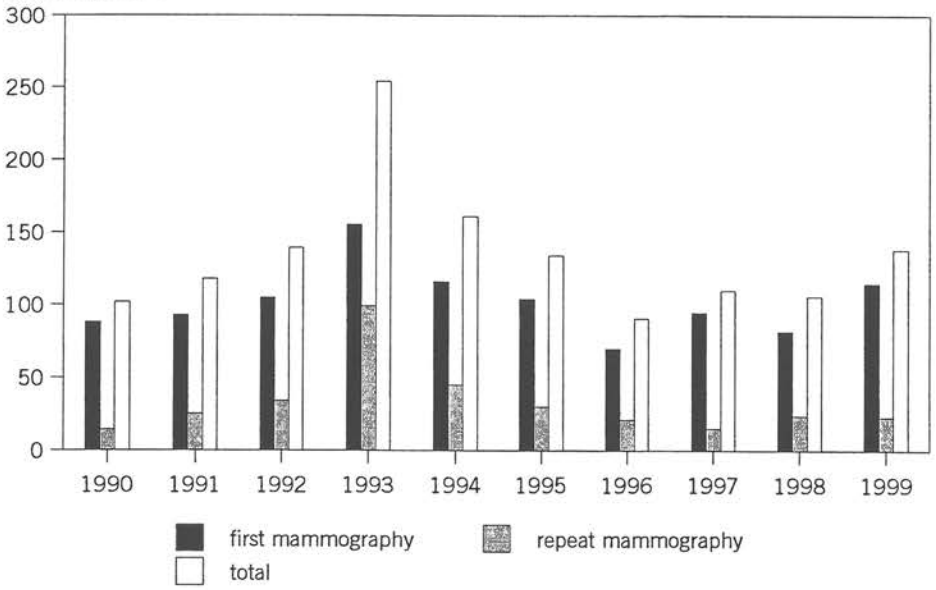
Figure 5: Number of mammograms requested by the GP per province group, per 10 000 women, 1990-1999



province group B



province group C



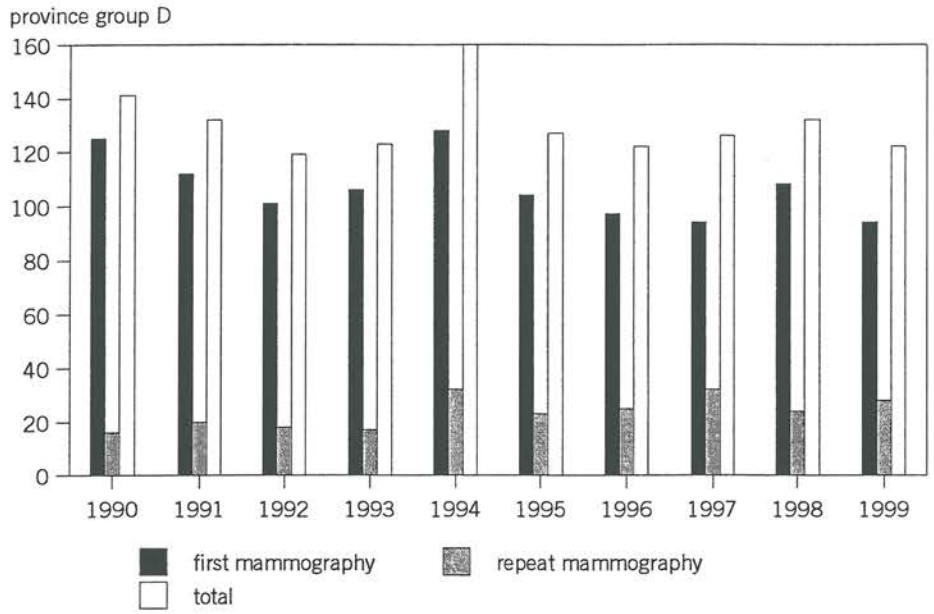
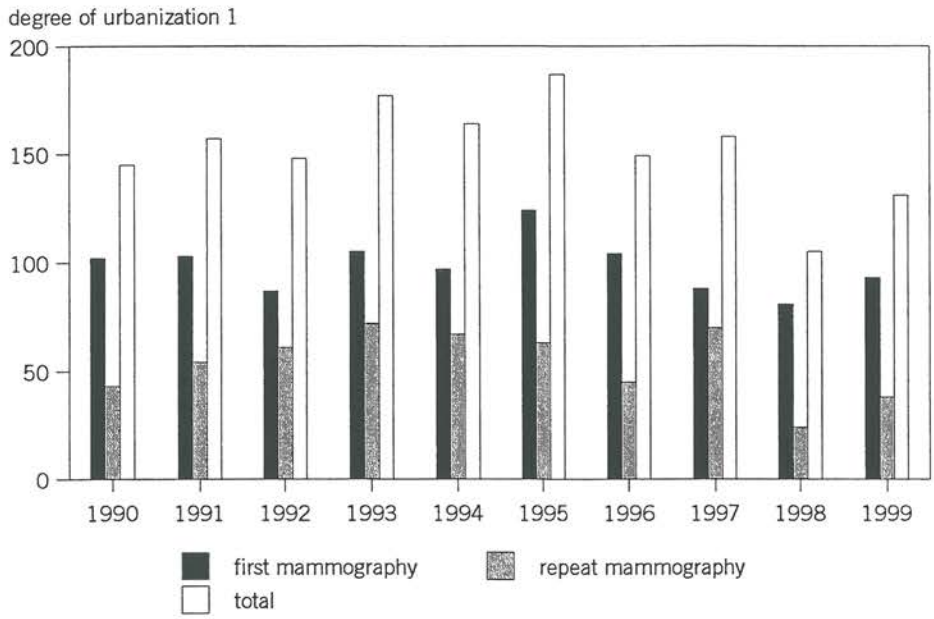
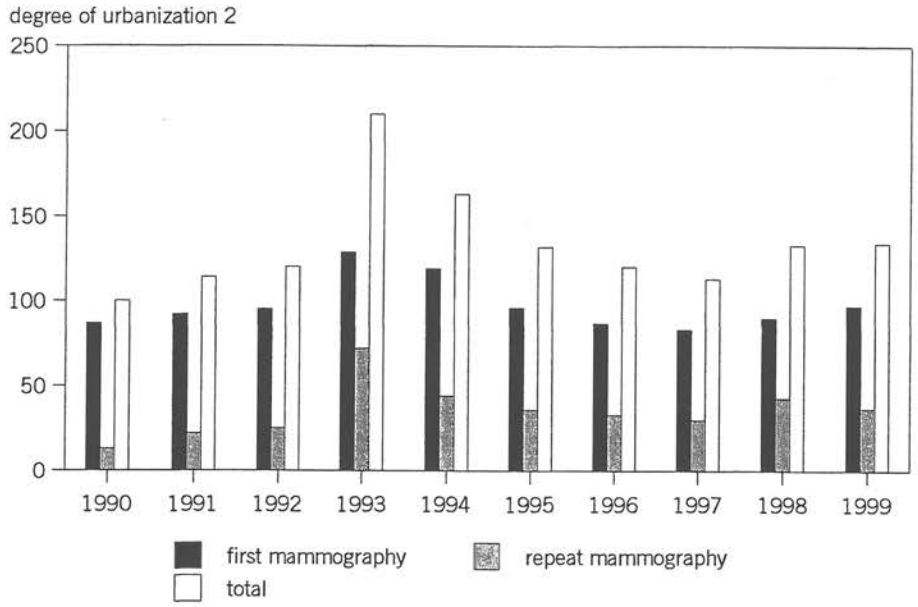
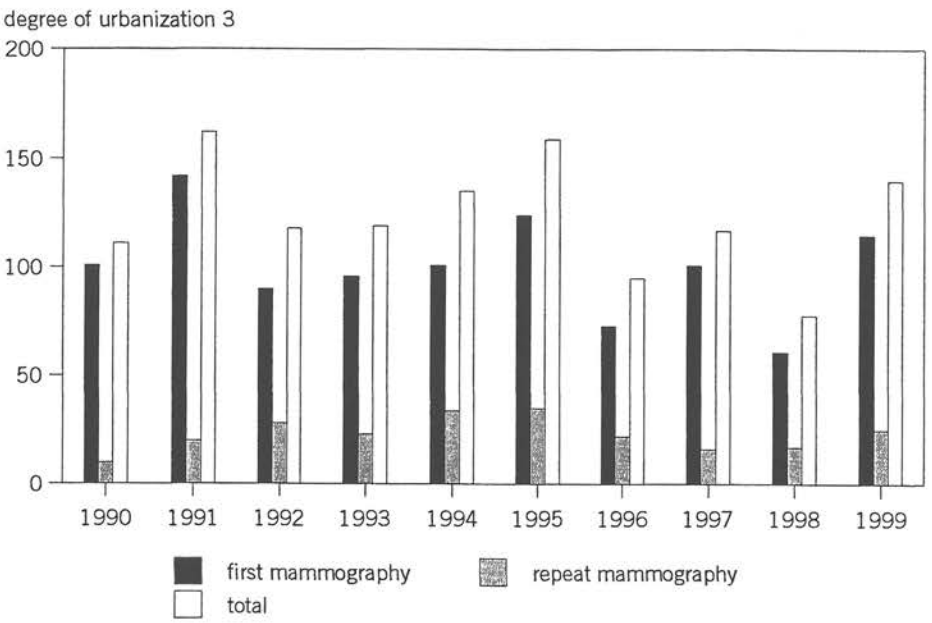
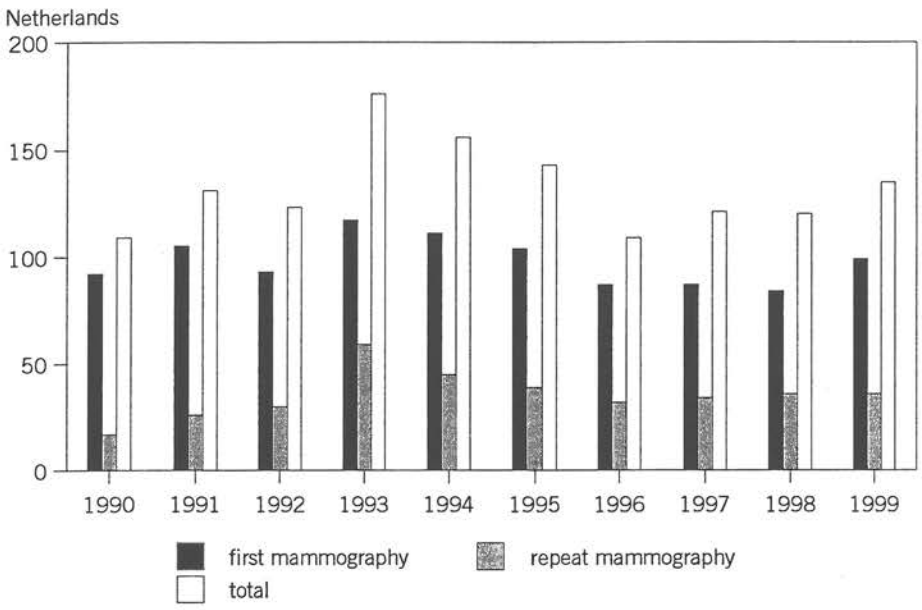


Figure 6: Number of mammograms requested by the GP per degree of urbanization and for the Netherlands per 10 000 women, 1990-1999




degree of urbanization 2
250
200
150
100
50
0
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
first mammography
repeat mammography
total


degree of urbanization 3
200
150
100
50
0
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
first mammography
repeat mammography
total



After remaining unchanged for two years, the total number of mammograms requested by GPs rose again in 1999. The rise was mainly caused by the increase in first mammograms.
In urbanization category 3 (large cities), the number of registered requests for mammograms by GPs fluctuates strongly from year to year. As yet, no explanation has been found for this phenomenon.
A study is being carried out to determine whether the these results are in any way affected by the local timing of the introduction of breast cancer screening. The results for the period through 1995 have already been described. The analysis will soon be extended to cover the period 1995-2000 (Dr. H.J. de Koning, Erasmus University Rotterdam).

In Table 10 the number of mammograms is stated by age group per 10 000 women.

Table 10: Number of mammograms requested by the GP by age group per 10 000 women for the Netherlands for 1990-1999

	Age group									
	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79
first mammography										
1990	104	186	230	189	**204**	**174**	**115**	**66**	**83**	26
1991	140	170	253	226	**229**	**166**	**147**	**117**	**75**	54
1992	119	187	260	201	**162**	**121**	**117**	**58**	**51**	39
1993	153	190	214	227	**255**	**242**	**174**	**139**	**98**	53
1994	149	246	260	234	**216**	**131**	**122**	**162**	**90**	57
1995	142	207	225	221	**208**	**179**	**94**	**89**	**84**	48
1996	126	158	211	200	**173**	**90**	**60**	**33**	**69**	54
1997	97	160	214	241	**128**	**114**	**48**	**61**	**96**	57
1998	90	150	231	254	**125**	**85**	**61**	**57**	**64**	63
1999	121	188	246	295	**166**	**123**	**64**	**78**	**66**	53
repeat mammography										
1990	14	30	46	36	**42**	**33**	**39**	**18**	-	-
1991	15	35	89	70	**67**	**50**	**41**	**20**	**25**	(10)
1992	43	59	65	76	**78**	**53**	**60**	**6**	**12**	(15)
1993	27	69	85	114	**132**	**159**	**235**	**159**	**79**	43
1994	32	57	104	108	**137**	**111**	**98**	**58**	**29**	(10)
1995	22	69	105	115	**104**	**76**	**57**	**26**	**33**	(5)
1996	27	59	87	100	**56**	**51**	**57**	**20**	**29**	(14)
1997	27	58	59	99	**92**	**81**	**48**	**43**	**28**	(16)
1998	29	61	80	111	**78**	**104**	**17**	**43**	**24**	(5)
1999	20	51	101	112	**84**	**64**	**51**	**25**	**20**	19
total										
1990	118	216	276	225	**246**	**207**	**154**	**84**	**83**	26
1991	155	205	342	296	**296**	**216**	**186**	**137**	**100**	64
1992	162	246	325	277	**240**	**174**	**177**	**64**	**63**	54
1993	180	259	299	341	**387**	**401**	**409**	**298**	**177**	96
1994	181	303	364	342	**353**	**242**	**220**	**120**	**119**	67
1995	164	276	330	336	**312**	**255**	**151**	**115**	**117**	53
1996	153	217	298	300	**228**	**141**	**117**	**53**	**98**	68
1997	124	218	273	340	**220**	**195**	**96**	**104**	**124**	73
1998	119	211	311	365	**203**	**189**	**78**	**100**	**88**	68
1999	141	239	347	407	**250**	**187**	**115**	**103**	**86**	72

In recent years, the majority of mammograms have been requested for women outside the age group targeted by the screening programme. Most of these cases concern women in the 35-49 age group. Mammography is performed relatively infrequently on women over the age of 75.

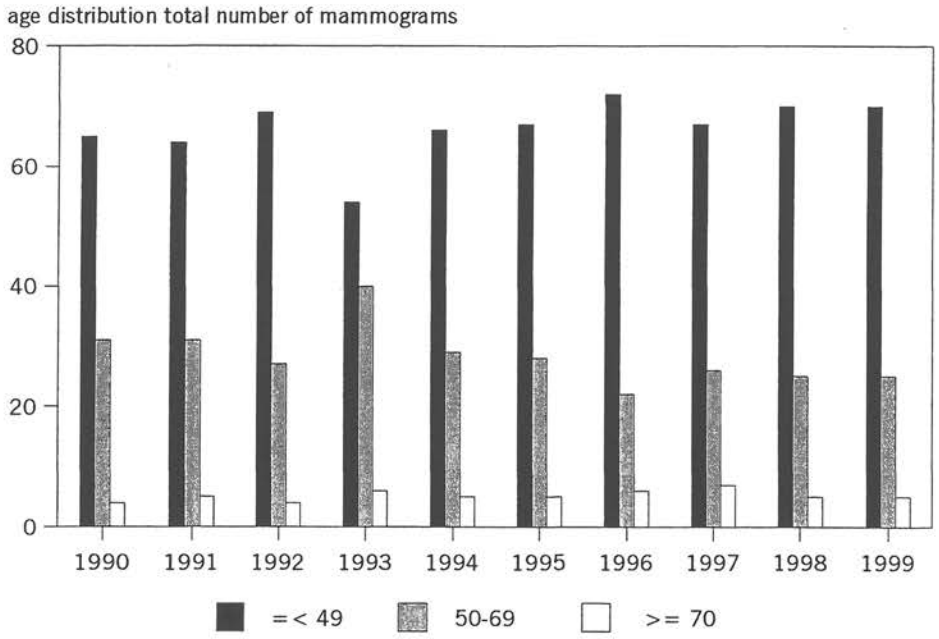
The number of requests by GPs for first and repeat mammograms for women in the

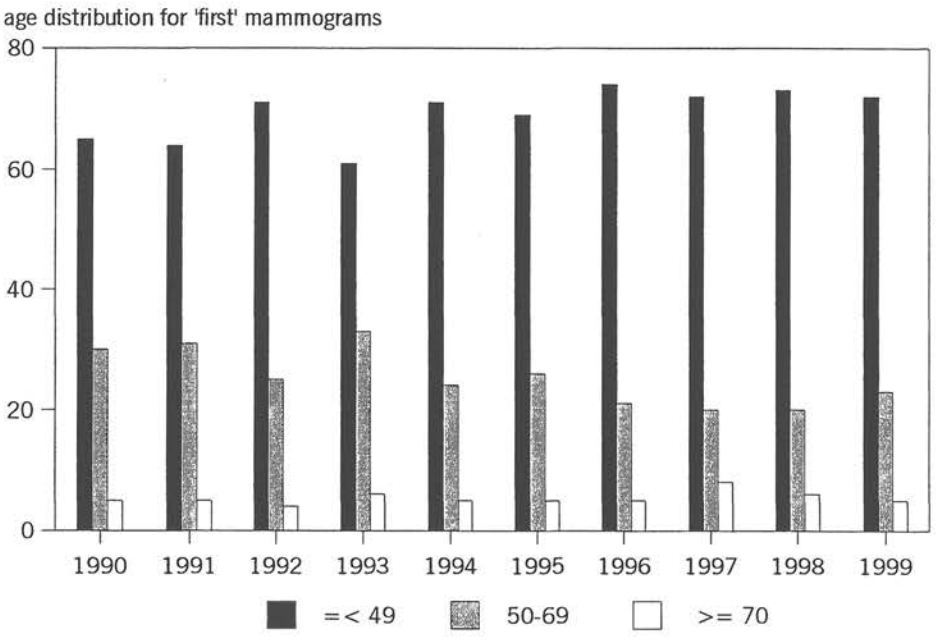
40-50 age group, in particular, has once again increased in the past four years. It could be said that 'periodic screening' outside the scope of the nationwide screening programme is taking place for this age group.

Table 11: Proportional distribution of all mammograms requested by the GP by three age groups. Percentages, 1990-1999

	age distribution, total number of mammograms			
year	≤49	50-69	≥70	total
1990	65	31	4	100
1991	64	31	5	100
1992	69	27	4	100
1993	54	40	6	100
1994	66	29	5	100
1995	67	28	5	100
1996	72	22	6	100
1997	67	26	7	100
1998	70	25	5	100
1999	70	25	5	100
	age distribution, "first" mammograms			
1990	65	30	5	100
1991	64	31	5	100
1992	71	25	4	100
1993	61	33	6	100
1994	71	25	5	100
1995	69	26	5	100
1996	74	21	5	100
1997	72	20	8	100
1998	73	20	6	99
1999	72	23	5	100

Figure 7: Proportional distribution of all mammograms requested by the GP in three age groups (percentages), 1990-1999





In 1999 the topic is maintained on the weekly return.

LIST OF PUBLICATIONS ON THE BASIS OR PARTLY ON THE BASIS OF THE DATA FROM MORBIDITY REGISTRATIONS SENTINEL STATIONS

BEEMSTERBOER, P.P.M., H.J. DE KONING, C.W.N. LOOMAN, G.J.J.M. BORSBOOM, A.I.M. BARTELDS AND P.J. VAN DER MAAS.

Mammography Request in General Practice During the Introduction of Nationwide Breast Cancer Screening, 1988-1995

European Journal of cancer, 1999, vol. 35, no 3 pp. 450-454

Introducing an organised breast cancer screening programme for certain age groups in a population might induce opportunistic screening in adjacent (non-invited) age groups and influence health behaviour in the target population. We analysed the effect of the start of the Dutch national screening programme on the number of mammographies requested by 43-45 general practices for the age groups 30-39, 40-49, 50-69 and 70+ years, using logistic regression analysis. In all age groups an immediate increase was observed in the number of mammography requests after the start of the screening, which was larged and statistically significant in the target population of the screening programme (age 50-69 years). More than 2 years after the start of screening, the number of mammography requests in all age groups had decreased to the level before the start and in the age group 50-69 years the number of mammographies was significantly lower than before the screening started. The unexpected increase in mammographies after the start of the breast cancer screening programme might be related to registry problems or to the process of building up the screening programme. Eventually there was a decrease in the number of mammographies in the target population, probably an effect of the introduction of the national screening programme. Opportunistic screening was not clearly demonstrated in adjacent age groups.

BEEMSTERBOER, P.P.M.

Evaluation of Screening Programmes. Studies on breast cancer and prostate cancer

Thesis Rotterdam, 1999, chapter 3.

STERILIZATION OF THE MAN

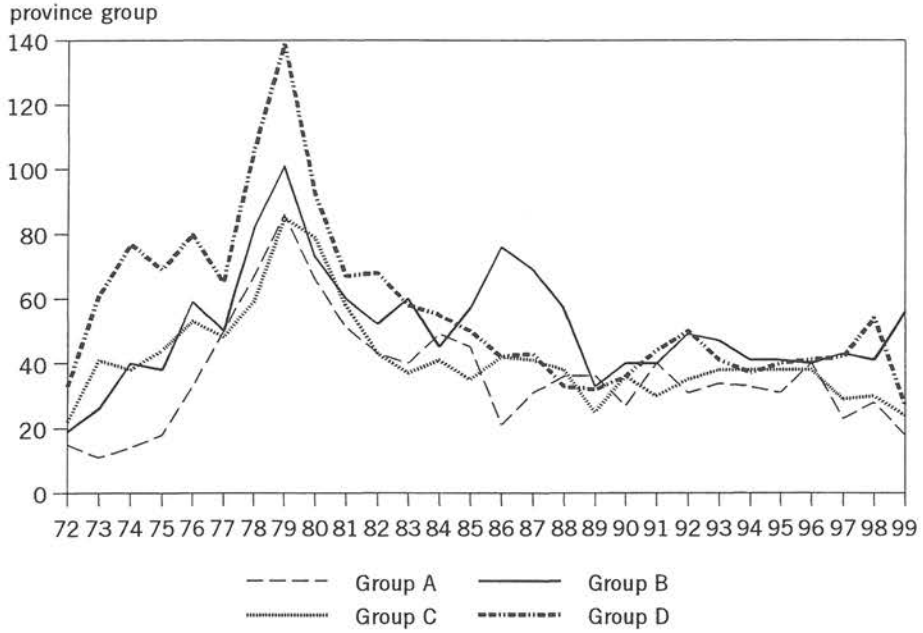
Sterilization of the man has been a topic on the weekly return since 1972. The data obtained on this subject, together with those on the subject sterilization of the woman, are being used inter alia for the compilation of a Dutch contribution to the Council of Europe's report: "Country Report of the Netherlands" and for computing the population trend.
The annually published data form a partial but as yet indispensable instrument for assessing developments in the field of birth control behaviour.

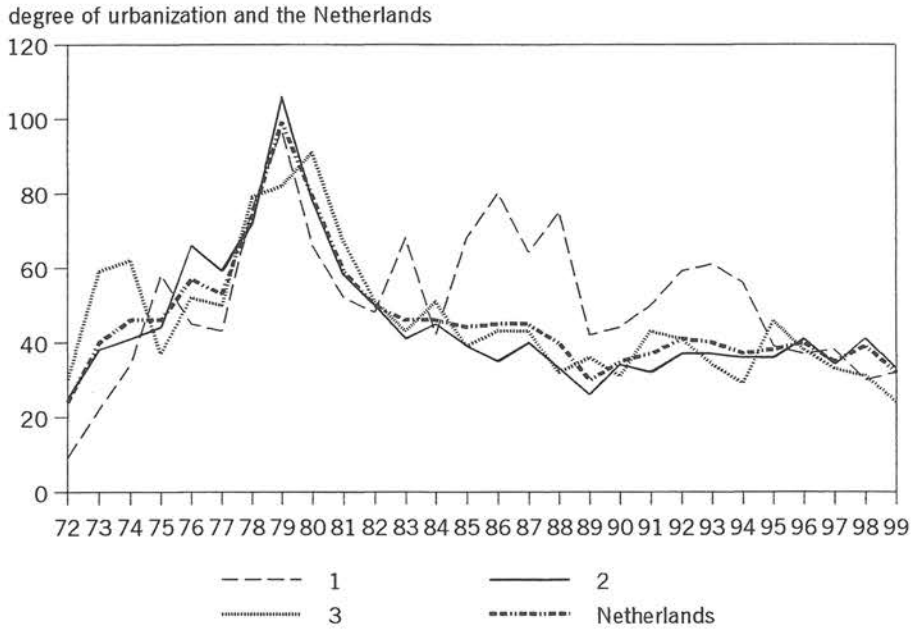
The number of sterilizations of men performed per 10 000 of all men and per province group and degree of urbanization is given in Table 12 (cf. Fig. 8).

Table 12: number of sterilizations of men performed, per province group and degree of urbanization per 10 000 men, 1990-1999

	province group				degree of urbanization			Netherlands
	A	B	C	D	1	2	3	
1990	27	40	36	36	44	34	31	35
1991	40	40	30	44	50	32	43	37
1992	31	49	35	50	59	37	41	41
1993	34	47	38	41	61	37	34	40
1994	33	41	38	37	56	36	29	37
1995	31	41	38	40	39	35	46	38
1996	40	40	38	41	37	41	38	40
1997	23	43	29	42	38	34	33	35
1998	28	41	30	54	30	41	31	39
1999	18	56	24	27	32	33	24	32

Figure 8: Number of sterilizations of men performed, per province and degree of urbanization and for the Netherlands, per 10 000 men, 1972-1999





After peaks around 1979 the number of sterilizations stayed around 45 per 10 000 men for five years. In 1988 a fall in this number occurred; this development continued in 1989. In that year 30 sterilizations per 10 000 men still took place. However, in 1990 and 1991 the number was higher again: 35 per 10 000 men. In the years after 1993 the number of sterilizations stabilized at nearly 40 per 10 000 men, the year 1997 excluded. In 1999 the number dropped once again, this time to 32 in 10 000 men.

In the eastern provinces in 1999 the number of sterilizations of the man displayed a remarkable increase. The number of 56 per 10 000 men is the highest in the past 10 years and lies clearly above the level of the other province groups. Note that this development did not apply to figures for the sterilization of women (see below).

After extrapolation a figure of 25 000 sterilizations is arrived at for the whole of the Netherlands in 1999. There is little difference between the quarters.
As also stated in the previous reports, it was to be expected that in the course of time, and after an initially strong increase, a stabilization would occur at a lower level. This would be the result of a short-lived 'historical catching-up effect'. This effect did in fact occur.
The number of sterilizations performed in 1999 was considerably lower than the replacement factor (approximately 10 000). This 'replacement factor' indicates the number of sterilizations that have to be performed in a year to allow the percentage of those sterilized at some time to remain the same. It is the resultant of two factors, viz population growth and the fact that those sterilized at some time disappear through ageing from the fertile age group (in a statistical sense this means: become 52 years).
As a result the percentage of men sterilized at some time decreased slightly in 1999 in comparison to 1998. The percentage of men sterilized at some time who statistically speaking belong to the fertile age group (17-51 years)[11] was 11.8% in 1999. This percentage was virtually constant from 1986, but has now decreased for the first time. Among women, however, this figure has been dropping for years (see below).

In Figure 10 (see p. 47) the number of sterilizations per 10 000 men per year of all subgroups together is compared with that of women. It is clear to see that in the past decade sterilization of the man in comparison with sterilization of the woman has become increasingly popular. In 1999 the sterilization ratio of men to women was 65:35.

Age distribution

The age-specific distribution of the number of sterilizations performed per 10 000 men is given in Table 13 (cf. Fig. 11, see p. 48).

An interesting development is that the percentage of men in the younger age group who have had themselves sterilized at some time has displayed a clear decline in recent years. In 1981 5.5% of the men between 22 and 31 had been sterilized, whereas that was only 2% in 1991, and in 1999 only 0.5%.

Table 13: number of sterilizations performed on men by age group, per 10 000 men, 1990-1999

	age group						
	20-24	25-29	30-34	35-39	40-44	45-49	50-54
1990	(2)	15	98	175	94	49	(9)
1991	(4)	28	110	153	108	53	(3)
1992	-	12	108	200	114	51	25
1993	-	23	101	158	124	73	20
1994	-	(2)	62	186	139	61	21
1995	-	11	74	209	101	66	13
1996	-	8	78	200	121	50	27
1997	(2)	(7)	71	154	106	70	21
1998	-	10	89	144	128	71	28
1999	(5)	14	69	122	132	47	7

Sterilizations of men are performed above all between the ages of 35 and 45; the largest number of sterilizations has since 1987 been performed between 35 and 39. In 1999 the largest number of sterilizations of man is been performed between 40 and 44.

A striking feature is the larger number of sterilizations of men of 45 years and older since 1992.
In 1999 this tendency changed. The number of sterilizations of men of 45 years and older is considerably lower than that in the previous years.

A cumulative calculation shows that in the Netherlands since 1971 at least 924 000 sterilizations of the man have been performed, that is among 11,8% of the present male population. For a further study see the next section, in which the topic `sterilization of the woman' is dealt with.

The category of sterilization was removed from the weekly returns as of 01-01-2000.

STERILIZATION OF THE WOMAN

Sterilization of the woman performed was placed on the weekly return in 1974 (of the man performed in 1972). Seventeen sterilizations per 10 000 women were performed in 1999, nearly the same number as for the previous two years. Extrapolation of these figures to the whole of the Netherlands yields a number of 13 500 sterilizations in 1999.

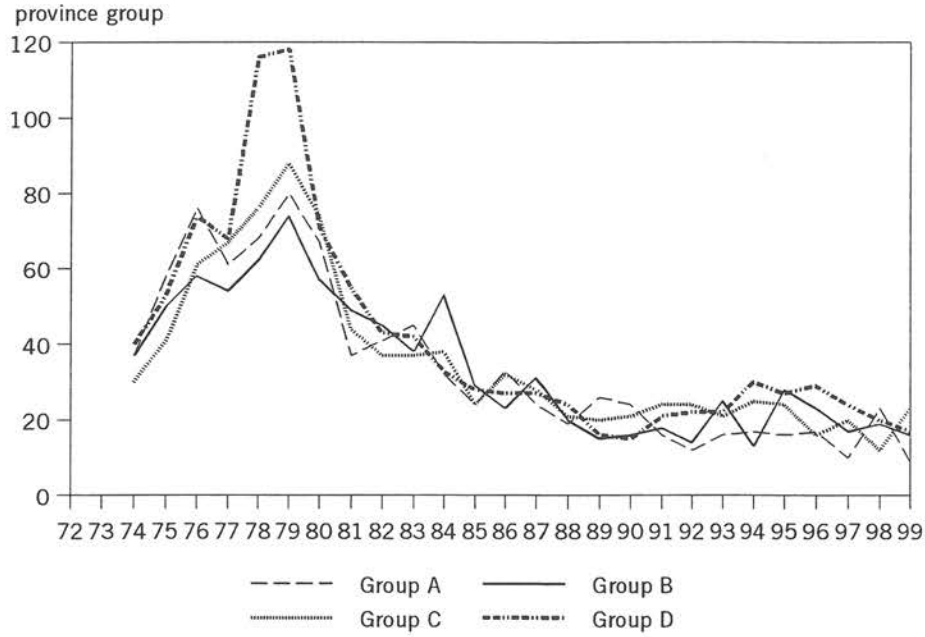
The number of sterilizations of women performed per 10 000 of all women and per province group and degree of urbanization is given in Table 14 (cf. Fig. 9).

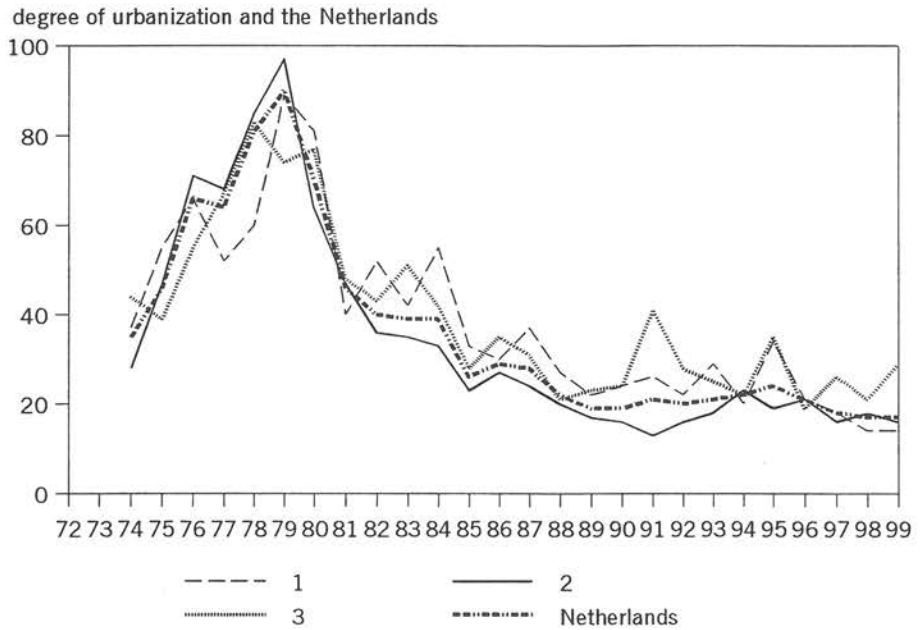
Table 14: number of sterilizations of women performed, per province group and degree of urbanization, and for the Netherlands per 10 000 women, 1990-1999

	province group				degree of urbanization			Netherlands
	A	B	C	D	1	2	3	
1990	24	16	21	15	24	16	24	19
1991	16	18	24	21	26	13	41	21
1992	12	14	24	22	22	16	28	20
1993	16	25	21	22	29	18	25	21
1994	17	13	25	30	20	23	22	22
1995	16	28	24	27	34	19	35	24
1996	17	23	16	29	21	21	19	21
1997	10	17	20	24	18	16	26	18
1998	23	19	12	20	14	18	21	17
1999	9	16	23	17	14	16	29	17

The western province group displays the largest number of sterilization of the woman in 1999.

Figure 9: Number of sterilizations of women performed, per province group and degree of urbanization and for the Netherlands, per 10 000 women, 1974-1999

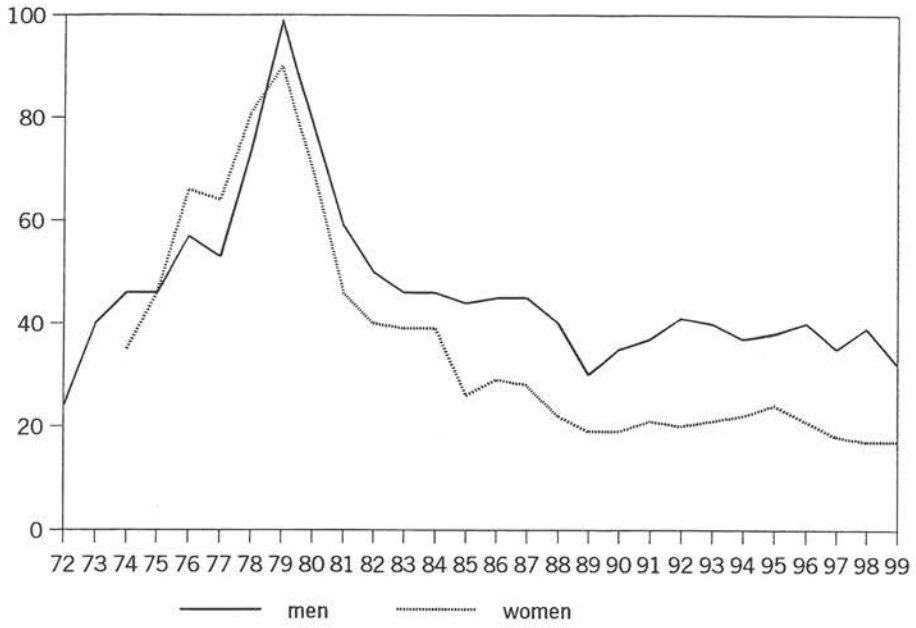




Since 1995 the number of sterilizations of the woman has gradually been falling. In the various subgroups some fluctuations occur, but without a clear direction.

Figure 10 gives a comparison between the number of sterilizations of women and of men per year. The curves display a great deal of similarity up to 1985. The remarks that were made on the trend in the previous chapter also apply here. From 1985 onwards the curves for men and women have diverged.

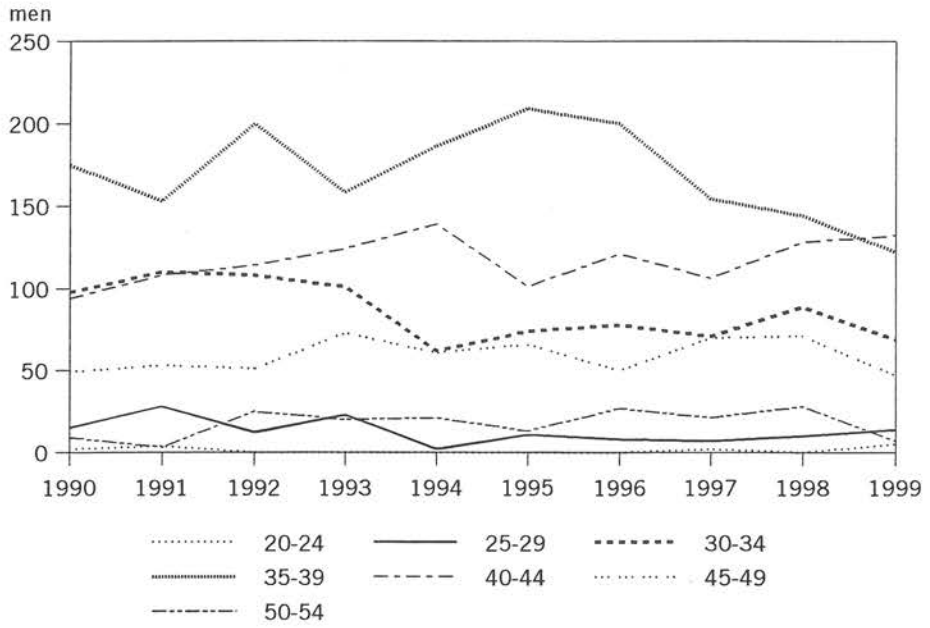
Figure 10: Number of sterilizations performed per 10 000 men and 10 000 women, for the Netherlands, 1972-1999



Age distribution

The age-specific distribution of the number of sterilizations performed per 10 000 women is given in Table 15 (cf. Fig. 11).

Figure 11: Number of sterilization performed by age group, per 10 000 men and women, 1990-1999



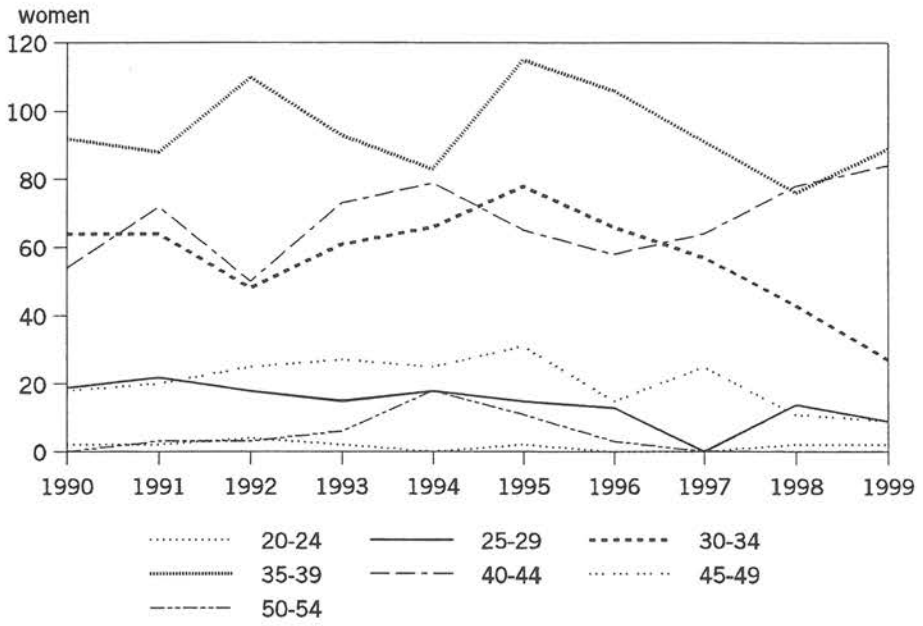


Table 15: number of sterilizations performed on women by age group, per 10 000 women, 1990-1999

	age group						
	20-24	25-29	30-34	35-39	40-44	45-49	50-54
1990	(2)	19	64	92	54	18	-
1991	(2)	22	64	88	72	20	(3)
1992	(4)	18	48	110	50	25	(3)
1993	(2)	15	61	93	73	27	(6)
1994	-	18	66	83	79	25	18
1995	(2)	15	78	115	65	31	11
1996	-	13	66	106	58	15	(3)
1997	-	-	57	91	64	25	-
1998	(2)	14	43	76	78	11	-
1999	(2)	9	27	89	84	9	-

Sterilization of the woman is performed above all between the ages of 30 and 45; below that age it is of little occurrence any more. In the age group up to 40 years the number of sterilizations has been falling quickly in recent years, whereas the number in the group >40 remains fairly stable.

A cumulative calculation shows that in the Netherlands since 1973 in total sterilization has been performed on at least 679 500 women, i.e. 8.5% of the present-day total female population. However, it is more realistic to relate the figures only to women of fertile age (15-49) and at the same time to bring in the sterilization pattern of the man. In that case it proves that in 1975 the woman or the man had been sterilized in approx. 6% of (married) couples. This percentage later rose from 18.5 in 1980 via 22.7 in 1985 to 23.0 in 1986. In 1987 it fell slightly for the first time. This fall continued. In 1990 this percentage was 22.1, in 1995 20.9 and in 1999 19.2%. The number of sterilizations (of men **and** women) that ought to have been performed in 1999 on the basis of this calculation to keep the total percentage equal to that of 1998 was 63 800. In reality this number was 38 500 (25 000 men and 13 500 women).

Table 16: percentage of women and men belonging to the fertile age group that have undergone sterilization at some time, 1980-1999

Year	women per 100 15-49 y	men per 100 17-51 y	total m+f per 100 15-51 y
1980	9,3	9,2	18,5
1981	9,8	10,0	19,8
1982	10,2	10,6	20,8
1983	10,6	11,1	21,7
1984	10,9	11,5	22,4
1985	10,8	11,9	22,7
1986	10,8	12,2	23,0
1987	10,6	12,3	22,9
1988	10,4	12,4	22,8
1989	10,2	12,3	22,5
1990	9,9	12,2	22,1
1991	9,6	12,2	21,8
1992	9,4	12,2	21,6
1993	9,1	12,2	21,3
1994	8,8	12,2	21,0
1995	8,7	12,2	20,9
1996	8,4	12,1	20,6
1997	8,1	12,2	20,3
1998	7,8	12,2	20,0
1999	7.4	11,8	19,2

Since 1985 there has been a fall in the percentage of sterilized women in the fertile age group (15-49). This figure reached a peak of 10.9% in 1984, after which it gradually declined to 7.4% in 1999. The percentage of sterilized men remained remarkably constant between 1986 and 1998, but dropped for the first time in 1999, as did the percentage of sterilized women. The percentage of sterilized men and women together has been falling ever since 1986 (see Table 16), which suggests that the popularity of sterilization as a method of birth control is on the wane, and not just among women. According to Dr. E. Ketting, who made these calculations, there are probably two factors at play here. Firstly, women want to have (more) children at an increasingly later age, which means that sterilization is postponed and often not performed at all. Secondly, there is less objection to taking contraceptive pills at an older age, partly due to the introduction of low-dosage types, which has clearly decreased the need for sterilization. The number of 40-49 year-old women using the pill rose from 8.6% in 1985 to 20.8% in 1997. (CBS, Statistical Annual 1998).

As a consequence, the popularity of sterilization among young women has been declining rapidly in recent years, much more quickly than among men. In 1980 6.9% of women aged 25-29 were sterilized, as compared to 0.4% in 1999. Since

1984 there has been a considerable decline among women in the 30-34 age group as well (from 13.8% in 1984 to 2.5% in 1999). The decline is smaller among women in the 40-49 age group (from 25.2% in 1985 to 19.5% in 1999). By far the highest percentage of sterilized women, 23.6%, is currently in the 45-49 age group. This is mainly because the large number of women who had themselves sterilized around 1985 at the age of 30-35 are now nearing 50.
Incidentally, it is interesting that the Netherlands is one of the few countries where many more men (currently 62%) are sterilized than women (38%). (In the fertile age group, there were 489 000 sterilized men and 294 000 sterilized women in 1998.)

The fact that more than 31% of all men and nearly 24% of all women around the age of 50 have been sterilized illustrates that sterilization is still an important method of birth control. These statistics show that more than half of all couples decided to take this step at some point in time.

The category of sterilization was removed from the weekly returns as of 01-01-2000.

PUBLICATIONS ON THE BASIS OR PARTLY ON THE BASIS OF THE DATA FROM THE CONTINUOUS MORBIDITY REGISTRATION

KETTING, E.., A.P. VISSER
Contraception in the Netherlands the low abortion rate explained
Patient Education and Counseling 23 (1994) 161-171

DOG BITES

The Ministry of Agriculture, Nature Conservation and Fisheries has via the Animal Health and Welfare Act the possibility of laying down rules for aggressive animals.

For assessing the need to impose restrictions also actively with regard to certain breeds of dog this Ministry requires information.

Information is being collected on dog bites by SIG-Care Information on admissions to hospital and by the Consumer and Safety Foundation on departments for emergency first aid for out-patients.

In 1986 and 1987 the sentinel stations recorded the topic of dog bites. The number of patients with a dog bite treated by GPs then proved to be twice as high as the number of patients treated in or admitted to hospital.

The Ministry of Agriculture asked the sentinel stations to place the topic on the weekly return again in 1998.
The spotter physicians are requested to record every patient who consults the GP about a dog bite for the first time. A distinction is made by sex.
In addition they are requested to issue a questionnaire to the victims of a dog bite. The questionnaire corresponds to the form that is used by the emergency first aid departments of the hospitals that are involve in the investigation by the Consumer and Safety Foundation. The victims of a dog bite are asked to send the questionnaire to the Consumer and Safety Foundation.
The Consumer and Safety Foundation (drs. H. Toet) will report on this part of the investigation.

The number of persons with a dog bite per 10 000 men and per 10 000 women per province group and by degree of urbanization, with the number for the Netherlands, is given in Table 17.

Table 17: Number of persons that consult the GP about a dog bite for the first time per 10 000 men and per 10 000 women, per province group and by degree of urbanization and for the Netherlands for 1986-1987 and 1998-1999

		province group				degree of urbanization			Netherlands
		A	B	C	D	1	2	3	
1986	M	29	42	26	35	39	31	25	31
1987		32	44	19	30	41	29	17	28
1986	F	28	24	22	18	29	22	17	22
1987		19	26	17	13	27	18	11	26
1998	M	11	15	6	9	22	8	4	10
1999		4	21	7	16	21	11	9	12
1998	F	7	9	9	14	13	9	8	10
1999		9	26	6	9	21	12	4	12
1998	T	9	12	7	11	17	9	6	10
1999		7	23	7	13	21	12	7	12

In 1998-1999 ten to twelve in 10 000 inhabitants of the Netherlands were treated by a GP for dog-bite wounds, significantly fewer than in 1986-1987 when the figure was 27 in 10 000.

GPs treated the same number of women as men for dog bites in 1998 and 1999. In 1986-1987 slightly more men consulted their GP for this reason.
In 1998 and 1999 the most dog-bite patients were reported in the eastern provinces; the least were reported in the western and northern provinces. This was also the case in 1986-1987.
As in 1986-1987, most patients treated by GPs for dog bites in 1998 and 1999 resided in rural municipalities. The lowest number of dog-bite victims were treated in the cities.
There are two factors involved here: there are more biting dogs in rural municipalities than in the cities and/or patients residing in cities do not go to their GP after being bitten by a dog, but to the emergency first aid department of a hospital.

Seasonal influences

In Table 18 the numbers of persons consulting the GP about a dog bite for the first time are given per quarter.

Table 18: Number of persons consulting the GP about a dog bite for the first time per 10 000 persons per quarter for 1986-1987 and 1998-1999

	1st quarter	2nd quarter	3rd quarter	4th quarter
1986 M	6	10	8	6
1987	8	8	7	9
1998	2	3	2	2
1999	3	2	4	2
1986 F	5	7	6	4
1987	4	4	6	4
1998	3	2	2	2
1999	1	3	5	2

The season does not prove to have any major influence on the number of patients visiting the GP sith a dog bite (first consultations only).

Age distribution

In Table 19 the number of patients who consulted the GP about a dog bite for the first time are distributed by age group.

Table 19: Number of persons who consulted the GP about a dog bite for the first time per age group, 1986-1987 and 1998-1999

age group	men				women			
	1986	1987	1998	1999	1986	1987	1998	1999
1- 4	41	29	(9)	(9)	27	27	(10)	26
5- 9	55	25	12	17	41	13	12	13
10-14	49	36	15	18	26	26	(8)	19
15-19	43	33	(5)	8	39	26	(3)	13
20-24	26	32	10	5	17	20	13	19
25-34	31	36	8	7	21	16	10	8
35-44	29	17	9	16	23	16	11	15
45-54	17	28	9	18	27	24	15	8
55-64	28	32	18	8	20	18	8	13
>64	18	14	10	14	13	6	7	9

As in the previous registration period (1986-1987), no infants were treated by GPs for a dog bite in 1998.

In 1999 one baby was treated by a GP for a dog bite. As in 1986-1987, it was primarily young people (aged 1-19) who were treated by GPs for a dog bite in 1998-1999. The relative share of young people has declined, however.

Compared with 10 years ago considerably fewer people were treated by the GP for a dog bite: in 1998 and 1999 about 40% of the number of people in 1986-1987. Information from other sources shows that between 1987 and 1996 the number of dogs in the Netherlands fell by 30%. Between 1987 and 1991 the number of treatments at the emergency first aid departments also fell. Then this number stabilized in 1992-1996 at the present level.

The topic will not be continued in 2000.

PUBLICATION ON THE BASIS OR PARTLY ON THE BASIS OF THE DATA FROM CONTINUOUS MORBIDITY REGISTRATION

MULDER, S.
Door een hond gebeten.
Consumer and Safety Foundation, 1989, Report No. 56.

HERPES ZOSTER

In several European countries sentinel station networks operate on behalf of epidemiological research in health care. The spotter physicians collect data for monitoring defined problems among their patients. After appropriate analysis these data give an indication for the trend in the occurrence of a defined problem.

The aim of sentinel station networks is to give some insight into the epidemiology of diseases in the population. An important question here is whether what is registered in a network of sentinel stations does in fact reproduce what diseases and problems occur in the population. Use of the correct denominator can reduce the uncertainty on this point.

Carefully maintained practice populations and age and sex registers are universally accepted as the most desirable denominator. However, these are not available in every health care system; in this situation mathematical models have been developed for estimating the population at risk.
Despite the availability of these models other possibilities are still being sought for determining the population at risk. One of these possibilities is utilization of an indicator disorder. The idea behind this is that when a disorder has a constant incidence it probably is possible to derive the population at risk with the aid of this incidence.

This idea has been formulated by D.M. Fleming and K.W. Cross of the Weekly Return Service of the Royal College of General Practitioners in Birmingham, UK.[11]
The question that had then to be answered was which disorder leads practically always to a visit to the GP, has a relatively constant incidence and is easy to diagnose.
That herpes zoster is such a disorder emerged from examination of the data collected by the Weekly Return Service over 27 years.

The next step in the research into the possibilities of using herpes zoster as an indicator disorder is registering it in a different sentinel station network from the English one. CMR Sentinel Stations the Netherlands was asked to do this.
As from 1 January 1997 herpes zoster has been placed on the weekly return.

The spotter physicians are asked to report the patients regarding whom the physician makes the diagnosis herpes zoster.

The disorder is so characteristic that is has not been felt necessary to define it further.

Table 20 shows the incidence of herpes zoster by province group and degree of urbanization and for the Netherlands per 10 000 men and per 10 000 women and per 10 000 persons.

Table 20: number of new cases of herpes zoster by province group and degree of urbanization and for the Netherlands per 10 000 men and per 10 000 women and per 10 000 persons in 1997-1999

		province group				degree of urbanization			Netherlands
		A	B	C	D	1	2	3	
1997	M	7	32	31	23	24	23	35	24
1998		11	33	36	26	32	30	33	28
1999		18	28	36	23	19	29	31	27
1997	F	12	39	37	29	29	29	40	30
1998		22	32	44	46	41	24	45	37
1999		28	46	43	28	36	36	46	37
1997	T	10	35	34	26	27	26	38	28
1998		16	32	40	36	36	22	39	33
1999		23	37	39	26	28	32	39	32

GPs report more women with herpes zoster than men. This tallies with the findings in the Weekly Return Service in the UK.
The number of reports by GPs in the northern provinces is strikingly low. In 1999 the number of reports in the northern provinces rose in comparison to the other province groups.
Herpes zoster is reported more in the most densely populated areas than in the less urbanized areas and in the rural municipalities.

Age distribution
The age distribution of the number of new cases of herpes zoster per 10 000 men and per 10 000 women is shown in Table 21.

Table 21: number of new cases of herpes zoster by age per 10 000 men and per 10 000 women in 1997-1999

age group	men			women			total		
	1997	1998	1999	1997	1998	1999	1997	1998	1999
< 1	-	-	-	-	-	(17)	-	-	(8)
1- 4	(6)	(9)	9	(7)	(7)	7	(7)	(12)	8
5- 9	(8)	12	12	(8)	22	23	8	17	17
10-14	(5)	13	8	14	10	24	9	12	16
15-19	13	20	28	(11)	23	5	12	21	17
20-24	18	14	15	(8)	13	17	13	14	16
25-29	15	12	16	12	24	24	14	18	20
30-34	13	30	23	13	23	22	13	27	22
35-39	21	20	30	12	13	13	17	17	22
40-44	32	24	21	26	27	27	29	25	34
45-49	29	41	19	40	34	42	34	38	30
50-54	40	32	28	52	43	39	46	37	33
55-59	31	39	46	52	64	74	42	51	60
60-64	35	55	66	52	98	105	44	77	86
65-69	30	41	57	39	71	92	35	57	76
70-74	81	92	67	88	99	102	85	96	87
75-79	61	59	48	77	83	82	71	73	66
80-84	98	54	94	111	90	41	106	78	58
> 85	(54)	120	58	94	92	36	82	160	42

Herpes zoster increases with age; this already known datum is confirmed by this registration. This finding tallies with that made in the Weekly Returns Service in the UK.

The provisional conclusion from the registration now lasting three years is that the incidence of herpes zoster over time is not entirely constant. A longer time series will be needed to demonstrate whether the incidence is constant to some extent in the longer term.

The topic herpes zoster has been maintained on the weekly return in 2000.

(ATTEMPTED) SUICIDE

In consultation with the Health Care Inspectorate, formerly the Chief Medical Office for Mental Health the topic was included in the weekly return in 1979 and is still on it.
In other fields too (hospitals), research into suicide is being performed at present. In this way it is being attempted to get an insight into the extent, the trend and other aspects of the problem. The name of the topic is also the definition.
The Chief Office of the same time requested that supplementary data be collected on the cases reported. For this purpose a questionnaire has been compiled in cooperation with Professor R.F.W. Diekstra, clinical psychologist, Leiden. On this form the question whether the attempt was successful or not and how the attempt was made appears. At the same time questions are asked about contacts with the medical sector prior to the (attempted) suicide. However, the essential aspect here is not whether the attempt was successful; the primary concern is the patient's intention, with the possibility that suicide is a consequence of the action.

The absolute number of reports (which is not equal to the number of patients, since recidivists are not uncommon) was 74, 95, 80, 76, 71 and 61 in 1994-1999.

The number of attempts per province group and degree of urbanization per 10 000 inhabitants may be found in Table 22. This breakdown into subgroups is of limited value, because of the relatively small frequencies.
When the degree of urbanization is considered, most suicide attempts are consistently reported in the cities.

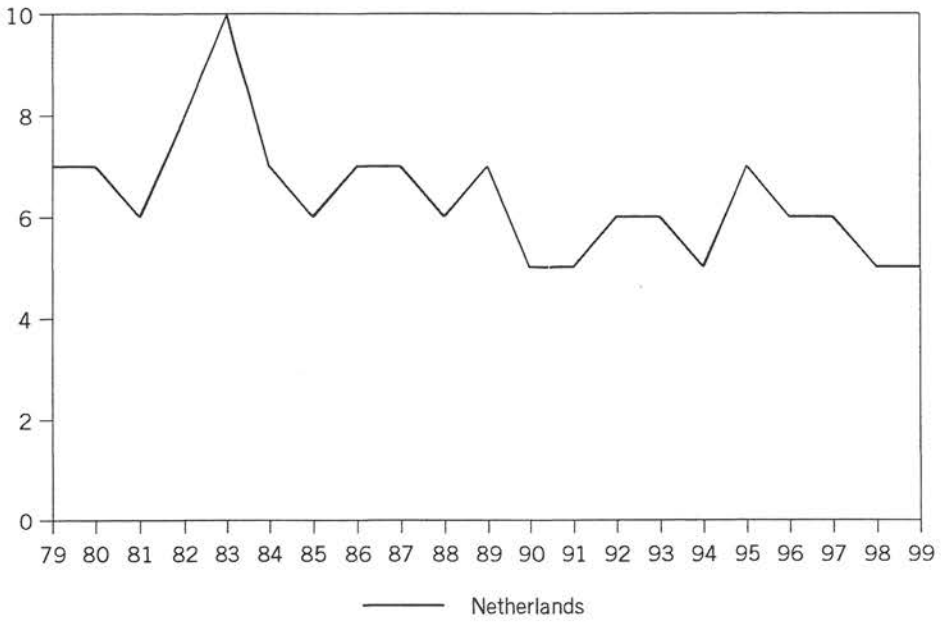
The distribution by province group displays a less consistent picture, possibly on account of the small numbers.

The figures do **not** support an increase that some suspect in the incidence of (attempted) suicide in the Netherlands.

Table 22: Number of reports of (attempted) suicide per province group and degree of urbanization and for the Netherlands, per 10 000 inhabitants, 1990-1999

	province group				degree of urbanization			Netherlands
	A	B	C	D	1	2	3	
1990	5	6	4	7	4	5	7	5
1991	5	6	5	4	4	3	10	5
1992	12	4	6	5	3	7	7	6
1993	6	4	5	8	3	5	9	6
1994	5	6	5	5	3	4	9	5
1995	5	5	7	10	3	7	10	7
1996	6	5	4	9	1	6	7	6
1997	3	3	9	8	3	6	12	6
1998	5	4	6	7	4	4	11	5
1999	2	5	4	7	5	4	8	5

Figure 12: Number of reports of (attempted) suicide for the Netherlands, per 10 000 inhabitants, 1979-1999



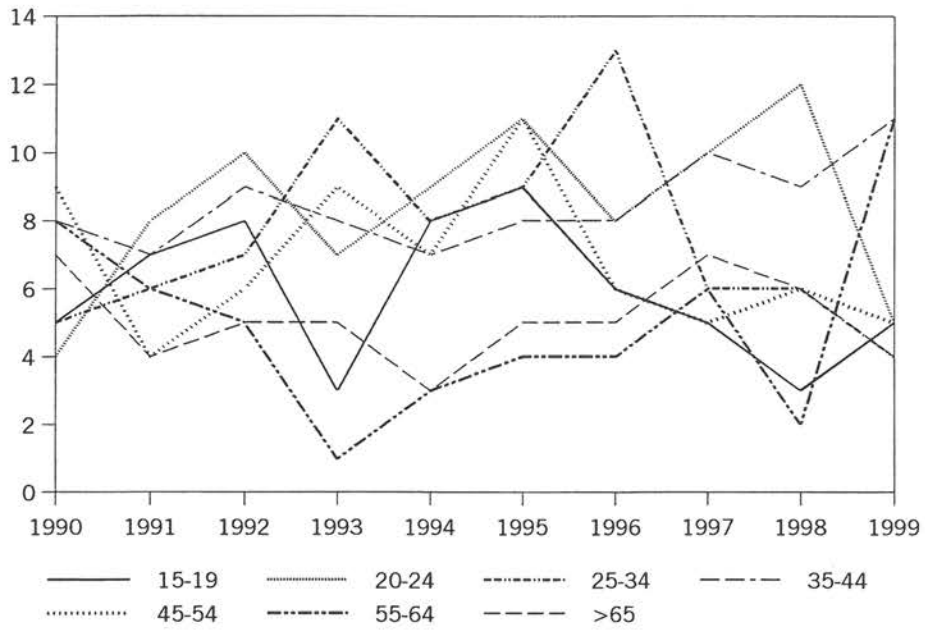
Age distribution

Table 23 gives the frequency of (attempted) suicide per 10 000 inhabitants by age group (see also Fig. 13).

Table 23: Number of reports of (attempted) suicide by age group, per 10 000 inhabitants, 1990-1999

	age group							
	10-14	15-19	20-24	25-34	35-44	45-54	55-64	>64
1990	(1)	5	(4)	5	8	9	8	7
1991	(1)	7	8	6	7	4	6	4
1992	(1)	8	10	7	9	6	5	5
1993	-	(3)	7	11	8	9	1	5
1994	(1)	8	9	8	7	7	3	3
1995	-	9	11	9	8	11	4	5
1996	(1)	6	8	13	8	6	4	5
1997	(1)	(5)	10	6	10	5	6	7
1998	-	(3)	12	6	9	6	2	6
1999	(1)	5	5	4	11	5	11	4

Figure 13: Number of reports of (attempted) suicide by age group, per 10 000 inhabitants, 1990-1999



With regard to age groups too the breakdown is of limited value on account of the small absolute numbers and the ease with which oscillations can occur. No clear preferential age emerges from the registration.

This topic has been maintained on the weekly return for 2000.

A PUBLICATION ON THE BASIS OR PARTLY ON THE BASIS OF THE DATA FROM CONTINUOUS MORBIDITY REGISTRATION

DIEKSTRA, R.F.W., M. VAN EGMOND.
Suicide and attempted suicide in general practice, 1979-1986.
Acta Psychiatrica Scandinavica; 79, 1989, p. 268-275

URETHRITIS OF THE MAN

Sexually transmitted diseases (STD) are, after influenza-like illnesses, the most common infectious diseases in the Netherlands. There are some 20 different pathogens that lead to a variety of complaints. Chlamydia, gonorrhoea, syphilis, herpes, H.P.V. infection, hepatitis B and H.I.V. infection are the principal ones.

The epidemiology of STD in the Netherlands is unclear, despite a large number of small-scale studies.
Hepatitis B and scabies (B diseases) and gonorrhoea and syphilis diseases) are notifiable diseases. Under-reporting is a recognized problem with the notifiable diseases. It is further the question whether gonorrhoea can still be used as a tracer disease for all STD. There is also a registration system in existence for STD cases with the social nurses of the Municipal Health Services.

Insight is desired into the occurrence of STD in the Netherlands. Studies on a small scale can give only partial insight. Registration in the sentinel stations can provide a useful supplementation of such studies.

The general practitioner is asked to report every patient with a (sub)acute discharge from the penis whereby dysuria usually occurs. This definition ties in with that used in the Amsterdam Sentinel Station Project.

When the disease AIDS comes up for discussion with a patient with urethritis during the consultation, the patient is also reported in the category concern about AIDS'.

The number of patients with urethritis per 10 000 men per province group and degree of urbanization, along with the number for the whole of the Netherlands, is given in Table 24.

Table 24: Number of patients with urethritis per province group and degree of urbanization and for the Netherlands, per 10 000 men, 1992-1999

	province group				degree of urbanization			Netherlands
	A	B	C	D	1	2	3	
1992	16	40	45	10	46	14	65	31
1993	15	32	25	19	36	16	33	23
1994	20	32	28	14	26	18	39	25
1995	14	40	32	11	43	18	42	26
1996	9	41	21	11	47	15	22	21
1997	12	23	22	11	33	10	34	17
1998	15	16	23	12	18	17	20	17
1999	9	29	25	12	5	20	39	20

After a decline in the first half of the 1990s, the national incidence of urethritis has remained fairly constant since 1996 at 17-21 in 10 000 men. The incidence of urethritis has dropped considerably in rural areas in the past two years. Significantly more urethritis cases were reported in the eastern and western provinces.

The most striking finding resulting from the registration of male urethritis is the initial consistently low incidence in the smaller cities and commuter municipalities. In 1999 there was a change when for the first time the number of urethritis cases was found to be lowest in the rural areas. Currently, there is no explanation for this. It is, however, remarkable that the occurrence of P.I.D. shows the same distribution by degree of urbanization (see 1998 Annual Report).

Seasonal influences

Major differences between the seasons were not found.

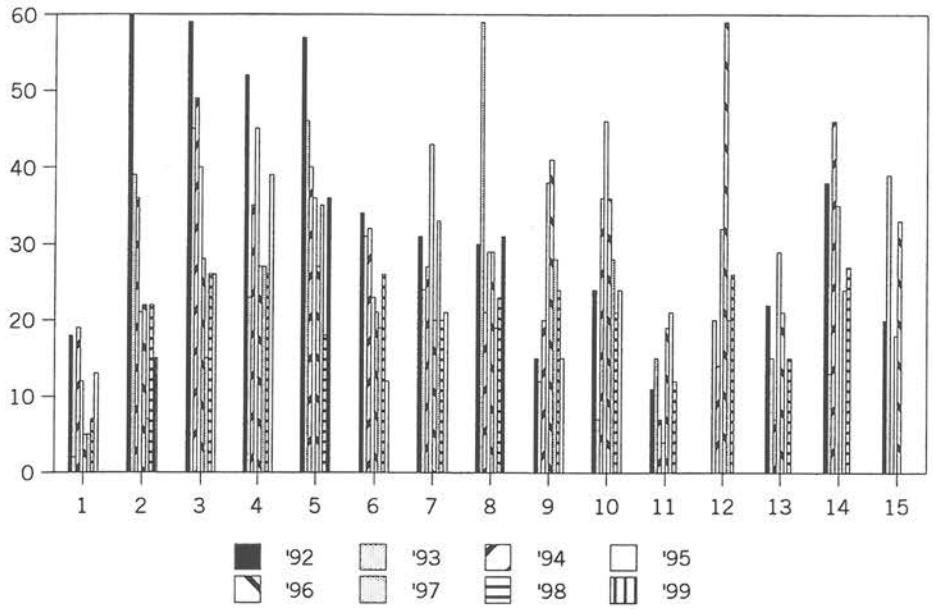
Age distribution

In Table 25 the age distribution is given of the patients with urethritis reported by the general practitioner (see also Figure 14).

Table 25: Number of patients with urethritis per age group per 10 000 men, 1992-1999

age group	men							
	1992	1993	1994	1995	1996	1997	1998	1999
< 15	(0)	-	-	(2)	-	-	(0)	-
15-19	18	(2)	19	12	(5)	(5)	(7)	13
20-24	60	39	36	21	22	(7)	22	15
25-29	59	45	49	40	28	15	26	26
30-34	52	23	35	45	27	27	26	39
35-39	57	46	40	36	27	35	18	36
40-44	34	31	32	23	21	19	26	12
45-49	31	24	27	43	20	33	20	21
50-54	30	59	21	29	29	19	23	31
55-59	15	(12)	20	38	41	28	24	15
60-64	24	(7)	36	46	36	28	21	24
65-69	(11)	(15)	(7)	(4)	19	21	12	45
70-74	-	(20)	(14)	32	59	(20)	26	41
75-79	(22)	(15)	(7)	(29)	(21)	0	15	-
80-84	(38)	(13)	(46)	(35)	-	(24)	27	-
> 85	(20)	(39)	-	(18)	(33)	0	0	-

Figure 14: Number of patients with urethritis per age group per 10 000 men, 1992-1999



Age group
1=15-19 2=20-24 3=25-29 4=30-34 5=35-39 6=40-44 7=45-49 8=50-54
9=55-59 10=60-64 11=65-69 12=70-74 13=75-79 14=80-84 15=> 85

Urethritis is seldom reported under the age of 15.
The majority of the patients are aged between 20 and 40. These results tally with those of the Amsterdam Sentinel Station Project.[12]

The topic will be repeated in 2000.

CONCERN ABOUT AIDS

General practitioners are confronted in their practice with AIDS patients and seropositivity to only a limited extent. The experience of GPs with care for seropositive patients and patients suffering from AIDS is limited.

Nevertheless, it is expected that among the population, despite or because of the extensive publicity campaign, there exists a certain degree of anxiety about this disorder. Publicity campaigns are often general in nature and do not give an answer to every question.
The present pattern of (sexual) relationships, often comprising various partners, whether or not simultaneously, may be a reason for questions being asked about the risks of infection with H.I.V.
It is considered important to obtain insight into these phenomena. In 1988 the topic "Concern about AIDS" started.

The aim of the registration is to take stock of the requests for help from which concern about or fear of AIDS emerges. These include the requests by patients who do not suffer from AIDS or are not proven seropositive. In addition to insight into the extent to which general practitioners are confronted with these requests, the aim is to obtain a picture of those making the requests and of the action undertaken by the general practitioners in response to them.

The spotter physicians are asked to register each consultation in which either the patient or the general practitioner brings up the subject of AIDS. In a supplementary questionnaire a number of supplementary data on the patient are recorded, the reasons for the patient's visit to the general practitioner, whether a request for determination of H.I.V. antibodies is made and whether that request is granted, whether the physician for other reasons than the patient's request proposes that such a test be performed and, if an examination has been made, what the result is.

Finally, the general practitioners are asked to specify the action that they further undertake in relation to the patient's questions and whether a follow-up contact is arranged. Extensive reporting on this supplementary examination is being done elsewhere[13] (J.J. Kerssens and L. Peters, Netherlands institute for Health Care Research).

Table 26 lists the number of consultations in which AIDS comes up for discussion, by province group and degree of urbanization and for the Netherlands, per 10 000 inhabitants, 1990-1999.

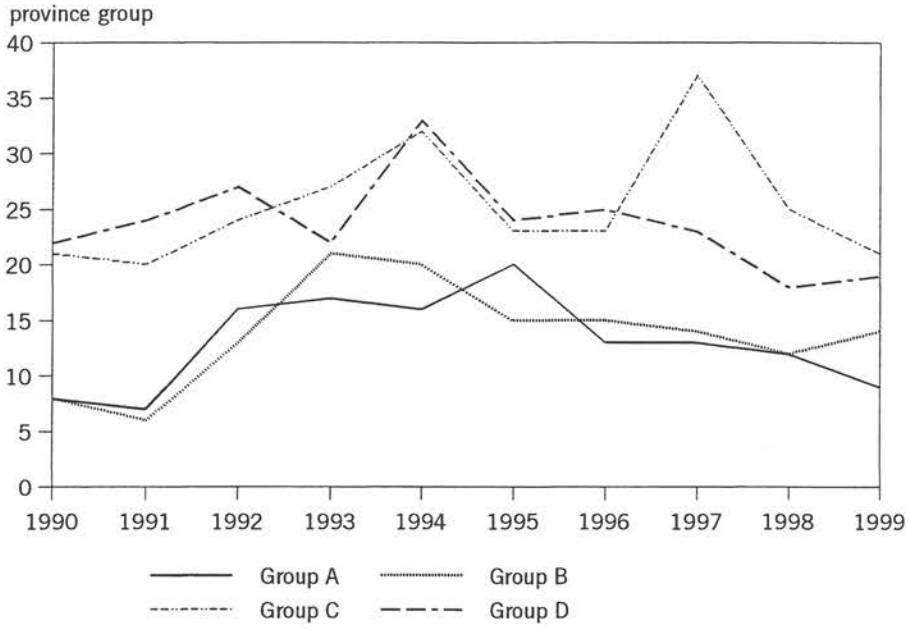
Table 26: Numbers of consultations in which AIDS comes up for discussion, by province group and degree of urbanization and for the Netherlands, per 10 000 inhabitants, 1990-1999

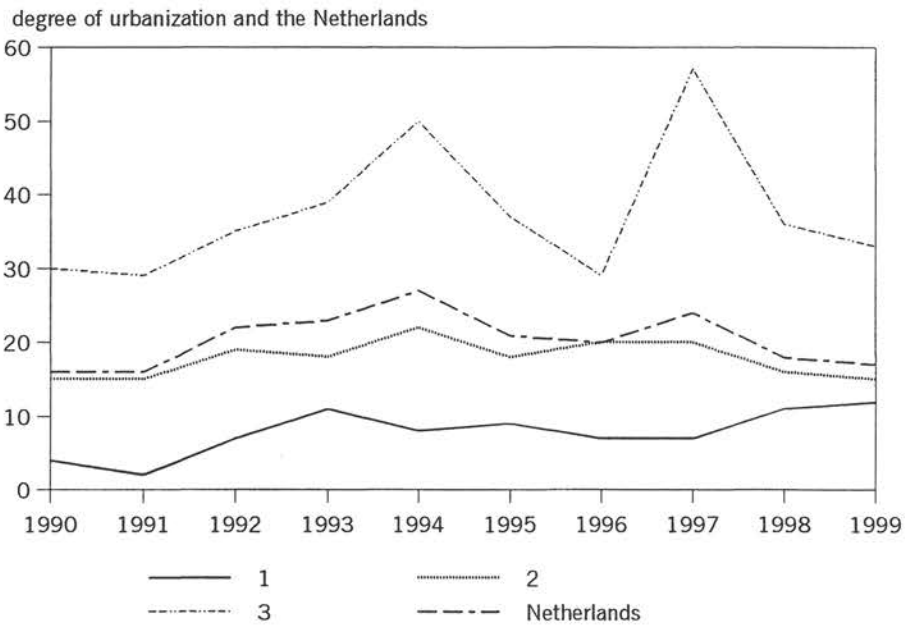
	province group				degree of urbanization			Netherlands
	A	B	C	D	1	2	3	
1990	8	8	21	22	4	15	30	16
1991	7	6	20	24	2	15	29	16
1992	16	13	24	27	7	19	35	22
1993	17	21	27	22	11	18	39	23
1994	16	20	32	33	8	22	50	27
1995	20	15	23	24	9	18	37	21
1996	13	15	23	25	7	20	29	20
1997	13	14	37	23	7	20	60	24
1998	12	12	25	18	11	16	36	18
1999	9	14	21	19	12	15	39	17

Initially, the number of consultations about AIDS was constant for several years. From 1992 an increase occurs, which also continued into 1994. From 1995 declining trend has a occurred.
However, the GPs in the cities clearly have more consultations in which AIDS comes up for discussion than elsewhere (cf. Fig. 15).

The supplementary data show that the number of consultations in which a request for a test on H.I.V. antibodies is made initially steadily increased: from 131 in 1990 to 321 in 1994. In 1999 188 requests for a test where recorded.
Although not every request for a test is granted, the number of tests performed also initially increased: from 121 in 1990 to 259 in 1994. In 1999 this number was 157. In a small number of these cases the GP himself or herself takes the initiative for making a test.

Figure 15: Number of consultations in which AIDS comes up for discussion, per province group and degree of urbanization and for the Netherlands, per 10 000 inhabitants, 1990-1999





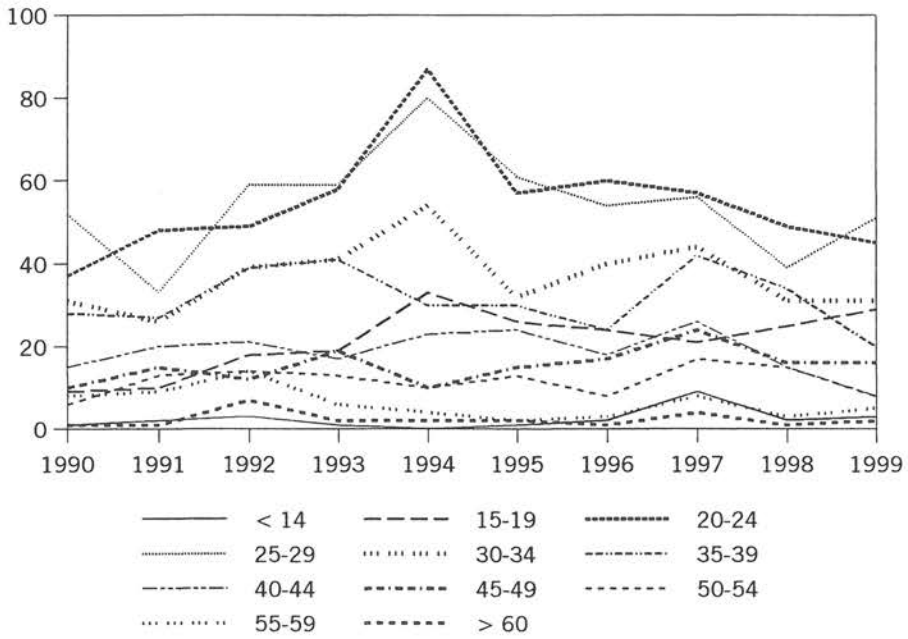
Age distribution

Table 27 gives the number of consultations in which AIDS comes up for discussion per 10 000 inhabitants per age group, for both sexes together (cf. Fig. 16).

Table 27: number of consultations in which AIDS comes up for discussion per age group, per 10 000 inhabitants, 1990-1999

Age group	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
< 14	(1)	(2)	(3)	(1)	-	(1)	(2)	9	(2)	(3)
15-19	9	10	18	29	33	26	24	21	25	29
20-24	37	48	49	58	87	57	60	57	49	45
25-29	52	33	59	59	80	61	54	56	39	51
30-34	31	26	39	41	54	32	40	44	31	31
35-39	28	27	39	41	30	30	24	42	34	20
40-44	15	20	21	17	23	24	18	26	15	8
45-49	10	15	12	19	10	15	17	24	16	16
50-54	(6)	13	14	13	10	13	8	17	15	8
55-59	8	9	14	6	4	2	(3)	(8)	(3)	5
> 60	(1)	(1)	7	(2)	(2)	(2)	(1)	(4)	(1)	(2)

Figure 16: Number of consultations in which AIDS comes up for discussion per age group, per 10 000 inhabitants, 1990-1999



The majority of the questions about AIDS put to the GP are asked in the 20-39 age group. In the sentinel station registration in 1999 like as in 1998 72% of the persons who come to talk about AIDS are between 15 and 40. Up to the end of 1994 in all age groups between 15 and 35 years the number of consultations in which AIDS comes up for discussion has increased. From 1995 a sharp fall has occurred precisely with this age group.

The topic has been maintained on the weekly return for 2000.

LIST OF PUBLICATIONS ON THE BASIS OR PARTLY ON THE BASIS OF THE DATA FROM THE CONTINUOUS MORBIDITY REGISTRATION

KERSSENS, J.J., L. PETERS
Hulpvragen bij de huisarts in de periode 1988 tot en met 1998.
Utrecht, NIVEL 1999

ROS, C.C., J.J. KERSSENS, M. FOETS AND L. PETERS.
Trends in HIV-related consultation in Dutch general practice.
International Journal of STD & AIDS, 1999; 10: 294-299

KERSSENS, J.J., L. PETERS
Ten years of questions about H.I.V. and AIDS for the GP
Aidsbestrijding, 1998, No. 42, p. 10-12

With the exception of the occasional doctor in Amsterdam and Rotterdam, Dutch GPs are confronted to only a limited extent with AIDS patients and seropositivity. The experience of GPs with care for H.I.V.-infected clients and patients who have AIDS is therefore limited. Nevertheless, the GP is in principle in a favourable position to make a contribution to the prevention of and provision of information on H.I.V. After all, a GP is often acquainted with the background of a patient and can in personal contact react to individual questions and to concern with regard to AIDS and seropositivity. And because the results of therapy in early treatment have been improved, it is becoming increasingly important to be able to make a good estimate of the possible need to decide on an H.I.V. test.

Action by GPs

The development of requests to the GP for help related to AIDS, from 1988 to the end of 1997, shows that in most respects the last year fits in with the preceding years. There is no question of any abrupt changes in the number of AIDS-related requests for help, nor in the number of appointments for an H.I.V. test. The availability of better medication, in the short term at least, has not had any great repercussions on the number of requests for help on aids from the Dutch GP by patients who are not (proven) seropositive. Coutinho considers the advantages of early treatment meanwhile so great that physicians ought to draw the attention of patients belonging to a high-risk group nd not yet tested to the new possibilities of treatment. Proceeding on the fact that more than 90% of the contacts come about on the initiative of the patient, this policy does not seem to have made its way into Dutch general

practice. With regard to AIDS GPs still act reactively. Even touching on the subject of testing is of rare occurrence, even now that in recent years there is no longer any question of a reticent test policy. Incidentally, that does not apply solely to the Netherlands. Although GPs are well aware of risk factors and believe that they are acting in accordance with the guidelines in recommending an H.I.V. test, that is disappointing in daily practice. English GPs seem to find it difficult to talk about the H.I.V. test and about sexually risky behaviour. American doctors too fail routinely to discuss the H.I.V. test with patients with risky behaviour. Therefore, many people who have run risks in the past remain untested in the United States. Doctors have a positive image of their screening capacity, but that image does not tally with reality. Probably the Dutch situation in this respect is no different.

KERSSENS, J.J., L. PETERS.
Angst voor AIDS: hulpvragen bij de huisarts in de periode van 1988 tot en met 1997.
Nivel, juli 1998, Utrecht

ROS, C.C., J.J. KERSSENS, M. FOETS, L. PETERS
Questions about AIDS put to the general practitioners in the period 1988-1996
NIVEL, April 1997, Utrecht

MOONS, MARIAN A.W., LOE PETERS, AAD I.M. BARTELDS, JAN J. KERSSENS
Concerns about AIDS in general practice.
BMJ, 1996; 312: 285-6

CASTEREN, Viviane van, Henk van RENTERGHEM, Joachim SZECSENYI.
Data collection on Patterns of demands for HIV-testing and other HIV/AIDS-related consultations in general practice. Surveillance by Sentinel Networks in various European Countries.
DG V Project "Europe Against AIDS", September 1995.

CASTEREN, V. VAN, A. BARTELDS, e.a.
Prescription of HIV-test by Sentinel networks of general practitioners in various European countries .
Poster presentation for the VII th International Conference on AIDS. Florence 16-21 Juni, 1991

MOONS, M.A.W., L. PETERS.
Huisarts en vragen over AIDS.
Medisch Contact; 45, 1990, no. 36, p. 1055-1057

UNILATERAL PHYSICAL VIOLENCE AGAINST PERSONS

Until recently unilateral physical violence against persons was considered above all under the issues child abuse and violence against women. Of more recent date are the themes violence at school, brutality in sport and (sexual) intimidation at work.

In the discussion on these subjects the question is inevitably asked what the extent of the phenomenon is. It is therefore urged to investigate this further.

In 1985, on the instructions of the then Ministry of Welfare, Public Health and Culture, a national investigation was started into the nature, extent, background and consequences of violence against women in heterosexual relationships. Of the women interviewed 9% proved to have suffered incidental unilateral physical violence and 11.4% repeated times.[14] In view of the culture in which 'ordinary violence' indoors against adult women is concealed and denied, these results in the opinion of the researcher indicate only a lower limit to the extent of the problem.

The Counselling Committee has received repeated requests to include some form of unilateral violence against persons on the weekly return. That was introduced in 1996.

Physical violence is interpreted as actions whereby against the will of the other party his/her physical integrity is violated and/or pain or injury is caused.
It expressly relates only to forms of unilateral violence; fights between two persons fall outside the definition.

The GP is asked to report the victims of unilateral physical violence. A distinction should be made by age and sex.

In the supplementary questionnaire questions are asked whether incidental or repeated physical violence is involved, about the nature of the injury and the physical consequences and who the perpetrator was.

The number of reports of victims of unilateral physical violence per province group and by degree of urbanization is shown with the number for the Netherlands per 10 000 men and per 10 000 women in Table 28.

Table 28: Number of reports of victims of unilateral physical violence per province group and degree of urbanization and for the Netherlands per 10 000 men and women in 1996-1999

		province group				degree of urbanization			Netherlands
		A	B	C	D	1	2	3	
men	1996	7	4	5	7	7	6	2	6
	1997	6	3	10	11	6	8	8	8
	1998	8	6	9	6	8	7	13	8
	1999	6	6	6	12	3	8	9	7
women	1996	3	6	5	4	5	5	4	5
	1997	11	6	13	10	2	9	23	10
	1998	10	5	12	7	5	8	19	9
	1999	11	6	10	16	4	11	17	11
total	1996	5	5	5	5	6	6	3	5
	1997	8	4	11	10	4	9	16	9
	1998	9	5	11	6	6	7	16	8
	1999	9	6	8	14	4	9	13	9

The number of victims of unilataal violence is stable over the last three years.

Seasonal effects

Few quarterly differences can be identified in the number of victims of unilateral physical violence in 1999. In the first half of 1999 the number of cases reported was somewhat higher than in the second half of the year.

Age distribution

Table 29 gives the age distribution of the number of victims of unilateral physical violence for the Netherlands.

Table 29: Number of victims of unilateral physical violence per age group per 10 000 men and per 10 000 women in 1996-1999

age group	men				women				total			
	1996	1997	1998	1999	1996	1997	1998	1999	1996	1997	1998	1999
1- 4	0	-	-	-	(3)	(3)	(3)	(3)	(1)	(2)	(2)	(2)
5 - 9	(4)	(5)	12	(2)	(2)	(3)	(5)	(8)	(3)	(4)	8	5
10-14	9	13	3	11	(2)	22	(8)	13	6	17	8	12
15-19	31	32	22	26	14	16	21	29	23	24	21	27
20-24	10	18	22	15	(4)	25	(6)	9	7	21	14	12
25-29	(3)	12	9	7	(5)	9	12	15	4	10	10	11
30-34	8	(5)	14	7	12	25	13	22	10	15	13	14
35-39	0	(4)	(4)	6	(7)	10	(4)	8	(4)	7	(4)	7
40-44	(6)	(2)	(6)	10	(8)	(6)	12	13	7	(4)	9	11
45-49	(2)	(8)	(3)	4	(4)	-	15	11	3	(4)	(3)	8
50-54	(5)	(5)	(6)	9	(3)	5	7	5	4	(5)	9	7
55-59	(3)	-	-	6	(3)	10	12	9	3	(5)	-	8
60-64	0	-	(4)	-	0	7	-	-	0	(4)	(2)	-
65-69	(4)	-	(5)	11	0	-	-	11	(2)	-	(4)	8
70-74	0	(5)	_	(4)	(4)	(4)	(4)	(4)	(2)	(5)	8	2

Most victims of unilateral physical violence are in the 15-19 age group. Boys were victimized more often than girls in 1996 and 1998-1999, and with equal frequency in 1997. In the 25-50 age group, women are the victim more often than men.

Perpetrators of unilateral physical violence reported to a GP are primarily male (87%). When the victim is female, the majority of perpetrators are known to the victim (80%); when the victim is male, the perpetrator is usually unknown (65%). This pattern has crystallized in the four years that this topic has been included in the weekly returns.

The subject is maintained on the weekly return for 2000.

ACUTE GASTRO-ENTERITIS

Gastro-enteritis belongs to the top ten of disorders in the Netherlands as regards incidence, and it contributes towards a considerable burden on primary health care.[15]
In 1996 gastro-enteritis was again included in CMR Sentinel Stations the Netherlands. It appeared on the weekly return in 1992-1993 also.

The aim of the investigation is:
1. to follow trends in the incidence and care burden of gastro-enteritis;
2. to follow trends in the incidence of campylobacteriosis and Salmonellosis in connection with implementation of the National Zoonoses Plan;
3. to determine the extent of the care burden ascribable to specific pathogens.

The spotter physician is asked in this registration to report a person with a new episode of gastro-enteritis. A new episode entails that the patient is seen for the first time during this episode and after a possible earlier report has been free from complaints for at least 14 days.
Patients who consult the GP exclusively by telephone need not be reported on the weekly return.

The following definition of gastro-enteritis is used:
- three or more times a day thin motions, differing from normal for this person or;
- thin motions and two of the following symptoms (fever, vomiting, nausea, stomach-ache, stomach cramps, blood or mucus in the motions) or;
- vomiting and two of the following symptoms (fever, nausea, stomach-ache, stomach cramps, blood or mucus in the motions).

Supplementary to the registration on the weekly return patients are asked to complete a questionnaire and to send in a faeces sample. The GPs also ask a control person, who does not suffer from gastro-enteritis, to fill in this questionnaire and send in a faeces sample.

The questionnaires and the results of the faeces tests are analysed at the Centre for Infectious Diseases Epidemiology of the National Institute of Public Health and the Environment (M.A.S. de Wit and Dr. Y. van Duijnhoven).

Table 30 lists the numbers of reports of acute gastro-enteritis per province group and degree of urbanization and for the Netherlands.

Table 30: Number of cases of acute gastro-enteritis per province group and degree of urbanization and for the Netherlands, per 10 000 men and per 10 000 women, 1992-1993 and 1996-1999

		province group				degree of urbanization			Netherlands
		A	B	C	D	1	2	3	
M	1992	38	40	52	112	38	59	82	62
	1993	32	53	49	88	31	53	80	56
	1996	39	47	49	66	40	51	56	51
	1997	26	54	68	51	29	51	85	52
	1998	27	89	81	46	56	61	97	64
	1999	26	111	67	53	52	65	95	67
F	1992	35	53	52	97	43	57	74	60
	1993	34	55	42	69	34	45	71	50
	1996	43	79	63	88	81	69	62	69
	1997	25	64	68	59	48	52	89	57
	1998	24	79	85	56	61	60	99	65
	1999	22	109	84	66	76	66	117	74
T	1992	37	47	52	104	41	48	78	62
	1993	33	54	46	78	32	48	76	53
	1996	41	63	56	77	60	60	59	60
	1997	26	59	68	55	38	51	87	54
	1998	25	84	83	51	58	60	98	66
	1999	24	110	76	59	64	66	107	71

The number of reports of gastro-enteritis is approximately at the level of 1992-1993. In 1996-1999 more women than men are reported with gastro-enteritis: 57-74 as against 51-67 respectively per 10 000 women and per 10 000 men. In the years 1992-1993 this difference was less clear.

The number of reports from the eastern provinces has been rising since 1998. Indeed, the highest number of reports came from the eastern region in 1999. The number of reports from the southern provinces decreased from 1996 to 1997 and then stabilized. This pattern does not occur in the other province groups. The large cities reported ever more cases of acute gastro-enteritis throughout the years than the two other urbanization categories.

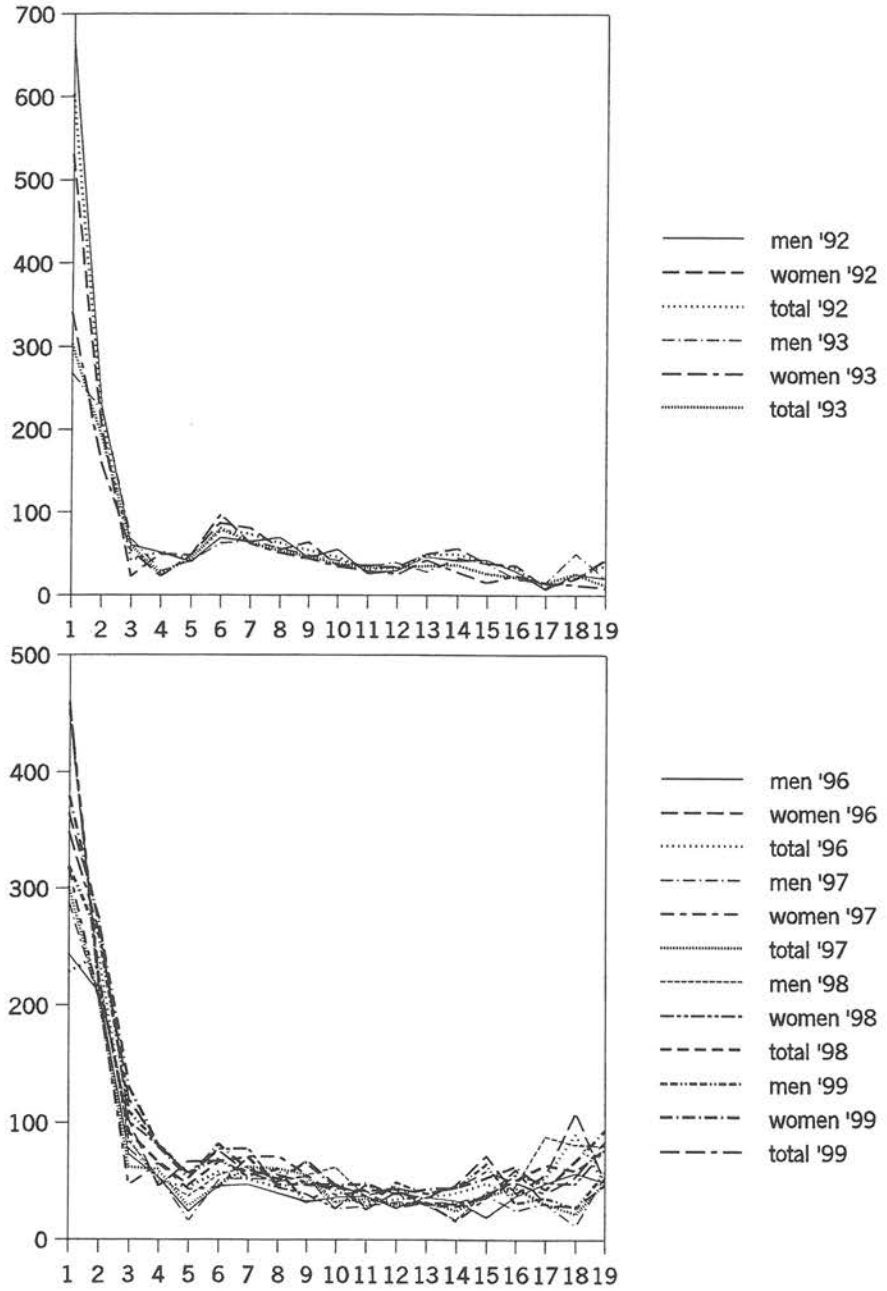
Age distribution

In Table 31 the data on the gastro-enteritis patients reported by the GP by age group are stated (see Figure 17).

Table 37: Number of reports of acute gastro-enteritis per 10 000 men and per 10 000 women, 1996-1999

age group	M				F				T			
	1996	1997	1998	1999	1996	1997	1998	1999	1996	1997	1998	1999
≤ 1	244	288	447	319	364	317	460	379	229	301	453	348
1- 4	211	206	226	259	276	208	217	271	242	207	222	265
5- 9	73	77	84	110	102	47	101	130	87	62	92	120
10-14	53	55	53	82	46	65	80	80	49	60	67	81
15-19	24	16	37	57	67	43	57	53	45	29	47	55
20-24	46	51	55	69	68	44	77	82	58	47	67	76
25-29	47	53	63	54	57	71	78	50	52	62	71	57
30-34	40	50	49	60	50	72	45	52	45	61	47	56
35-39	32	54	55	32	68	56	39	66	50	55	47	49
40-44	36	26	62	48	47	38	27	46	42	32	44	47
45-49	37	29	37	28	26	42	47	48	32	35	42	38
50-54	27	32	46	49	41	27	40	39	34	30	43	44
55-59	35	31	30	39	36	32	30	43	36	32	30	40
60-64	33	32	17	45	47	16	31	44	40	25	28	45
65-69	19	38	41	65	72	36	36	53	48	37	38	59
70-74	37	25	46	31	40	60	56	63	38	45	51	49
75-79	48	31	88	36	56	31	49	43	53	31	64	40
80-84	57	(12)	81	27	109	28	48	68	90	22	59	54
≥ 85	49	54	80	58	51	47	77	94	50	49	78	84

Figure 17: Number of reports of acute gastro-enteritis by age group per 10 000 men and per 10 000 women, 1992-1993 and 1996-1999



1=≤1 2= 1- 4 3= 5- 9 4=10-14 5=15-19 6=20-24 7=25-29 8=30-34
9=35-39 10=40-44 11=45-49 12=50-54 13=55-59 14=60-64 15=65-69 16=70-74
17=75-79 18=80-84 19=≥85

In both registration periods most cases of acute gastro-enteritis are diagnosed among babies and 1-4 year-olds.
In 1996-1999, otherwise than in 1992-1993, there is among 5-9 year-olds a clearly higher incidence compared with the 10-80 age groups.

Seasonal influences
In Table 32 the numbers of acute gastro-enteritis cases per season are stated.

Table 32: Number of reports of acute gastro-enteritis per season, per 10 000 inhabitants, for 1997-1999

quarter		1	2	3	4	total
M	1997	10	13	20	10	53
	1998	20	10	17	17	64
	1999	17	14	18	18	67
F	1997	12	15	19	11	57
	1998	20	12	16	18	66
	1999	21	17	22	15	75
T	1997	11	14	19	11	55
	1998	20	11	16	17	66
	1999	19	15	20	16	70

Generally, the highest incidence is seen in the first and the third quarters of a year. Seasonal differences are mostly negligible.

Results of the faeces cultures
The results of the examination of the faeces samples of both patients and control persons will be reported on in detail by the RIVM (Mrs. M.A.S. de Wit).

The subject appears on the weekly return in 2000 too.

PUBLICATIONS ON THE BASIS OR PARTLY ON THE BASIS OF THE DATA FROM THE CONTINUOUS MORBIDITY REGISTRATION

WIT DE M.A.S., M.G.P. KOOPMANS, L.M.KORTBEEK , W.J. VAN LEEUWEN, J. VINJE, A.I.M. BARTELDS, Y.T.P.H. VAN DUIJNHOVEN

Interim report of a study on gastro-enteritis in sentinel practices in the Netherlands (NIVEL) 1996-1999.

Results of the first two years.

RIVM, Bilthoven, January 1999, report No. 216852003.

Introduction In 1996 an investigation started into gastro-enteritis in patients reporting to the GP with gastro-enteritis. This investigation is being performed in cooperation with the Netherlands Institute of Primary Health Care (NIVEL) and has the following aims: estimating (trends in) the incidence of gastro-enteritis for which a GP is consulted, evaluation of the effect on people of a preventive programme among production animals to cut back the number of Salmonella and Campylobacter infections, estimating the relative importance of a road panel of micro-organisms in the causing of gastro-enteritis and the identification of risk factors. The data collection will be rounded off in 1999. This report presents the results of the first two years of this investigation.

Method The investigation consists of two parts: an enumeration study and a patient control investigation. All the patients who consult a NIVEL GP (40-45 sentinel stations) are tallied, by sex and age group. Moreover, GPs who take part in the patient control investigation (33-36 sentinel stations) ask each patient who consults them for gastroenteritis and an age-matched control to complete a questionnaire and collect a faeces sample.

Results The incidence of gastro-enteritis for which a GP is consulted was 77 per 10 000 person years from May 1996 to May 1998. The incidence was significantly higher among persons up to 5 years than among persons of 5 years and older. A higher incidence was also found for women and for urban areas. A lower incidence was found in the northern region in comparison with the rest of the Netherlands. Of all patients who consulted a participating GP 40% took part in the patient control investigation. In 34% of these patients and in 7% of the controls a pathogen was demonstrated in the faeces. This percentage was higher in the age groups up to 15 years (47%), and among patients who had complaints for less than 7 days before they consulted the GP (46%). Campylobacter spp was isolated in the faeces of 10% of the patients, Salmonella spp in 4% and Shigella spp and Yersinia spp in fewer than 1%. These bacteria were hardly found at all in controls. VTEC was found in fewer than 1% of both patients and controls. Rotavirus and SRVS were each found in 5% of the patients, adenovirus in 3% and astrovirus in 1%. Giardia Lamblia was found both in patients (6%) and in the controls (4%). Entamoeba histolytica. Cryptosporidium and Cyclospora were found in 1-2% of the patients. Dientamoeba fragilis was frequently found in patients (10%) and even more often in controls (15%). As independent risk factors for gastro-enteritis the following were found among others: having a chronic gastro-intestinal disorder (OR=6.5 95% b.i. 3.6-11.4) and travel to Asia (OR=25.8 95% b.i. 3.0-22.9) and other developing countries (OR=8.7 95% b.i. 1.1-70.4). For bacterial, viral and parasitical gastro-enteritis differences in risk factor

were found; for instance, parasitical gastro-enteritis proved to be connected with swimming in a swimming bath and with the presence in the household of a child attending primary school. **Conclusion** In the incidence of GP consultations for gastro-enteritis of 77 per 10 000 person years a slight decline seems observable in respect of the incidence of 90 per 10 000 person years in a comparable investigation in 1991-1993. The principal pathogens of gastro-enteritis for which the GP was consulted were Campylobacter spp, Salmonella spp, rotavirus, SRV and Giardia Lamblia and Dientamoeba fragilis. However, the last two were also frequently encountered in controls. The incidence and the positive percentage for Salmonella spp, Salmonella Enteriditis and Campylobacter seemed to have declined somewhat on respect of a comparable investigation in 1992-1993. The risk factors for the various groups of pathogens can serve as a handle for determining preventive measures against contracting an infection with these pathogens. Definitive results and more extensive risk analysis will be presented after the data collection has been rounded off.

WIT DE M.A.S., L.M. KORTBEEK, W.J. VAN LEEUWEN, M.P.G. KOOPMANS, A.I.M. BARTELDS, I.A. VAN ASPEREN, M.W. BORGDORFF.
Interim-rapportage van onderzoek naar gastro-enteritis in huisartsenpeilstations (NIVEL) 1996-1997
Methoden en resultaten van de eerste vijf maanden.
RIVM, 1997, Rapport nr. 216852001.

GOOSEN, E.S.M., A.M.M. HOOGENBOOM-VERDEGAAL, A.I.M. BARTELDS, M.J.W. SPRENGER, M.W. BORGDORFF.
Incidentie van gastro-enteritis in huisartsenpeilstations in Nederland, 1992-1993.
RIVM, 1995, Rapport nr. 149101012.

GOOSSEN, E.S.M., A.M.M. HOOGENBOOM-VERDEGAAL, A.I.M. BARTELDS, M.J.W.SPRENGER, M.W. BORGDORFF.
Incidentie van gastro-enteritis in huisartsenpeilstations in Nederland, 1992-1993.
Infectieziekten Bulletin, jaargang, 1995, nr. 4

PROSTATE TROUBLE

Early detection of frequently occurring forms of cancer in the hope of preventing further disaster by timely treatment continues to be called for. Introduction of mass screening for cancer demands research beforehand into the effect of early detection. Prostate cancer is of frequent occurrence among men. However, screening for prostate cancer is still controversial, so that research is going on into the effect of early detection of prostate cancer.
The Social Health Care Institute of Erasmus University, Rotterdam, is involved in the evaluation of a randomized study into the effect of early detection of prostate cancer.
This early detection takes place by means of rectal touch, transrectal ultrasonography by a urologist and a PSA determination in the blood.

The GP can perform a rectal touch and has the possibility of applying for a PSA determination. For a good evaluation of the effect of early detection of prostate cancer it is important to chart how often the GP performs or applies for these two examinations in the situation in which no screening has been introduced.
The registration by the CMR Sentinel Stations is a good possibility of gaining insight into the performance of rectal touch and application for a PSA determination by the GP.

The spotter physician is requested to report all rectal touches performed and all PSA determinations applied for that are done to diagnose 'prostate trouble'. Spotter physicians are also asked to report when a patient, on the basis of the results of these examinations, is referred for suspected prostate cancer.

The number of times that the GP performs a rectal touch, applies for a PSA determination and, on the basis of the results of these examinations, refers a patient to the urologist with suspected prostate cancer is shown in Table 33 per 10 000 men by province group and degree of urbanization and for the Netherlands as a whole.

Table 33: number of rectal touches performed, PSA determinations applied for and referrals for suspected prostate cancer per province group and degree of urbanization and for the Netherlands, per 10 000 men in 1997-1999

	province group				degree of urbanization			Netherlands
	A	B	C	D	1	2	3	
rectal touch								
1997	64	144	147	97	164	100	147	116
1998	45	120	167	105	124	107	170	117
1999	45	102	124	99	84	91	153	98
PSA determination								
1997	26	113	85	90	134	70	78	81
1998	33	109	103	69	121	71	105	83
1999	42	111	108	62	151	63	123	84
referral								
1997	7	12	11	7	15	8	12	9
1998	7	19	20	7	24	12	14	14
1999	3	18	14	5	15	11	17	11

lowest number of examinations, both rectal exams and PSA determinations, were reported in the northern provinces.
The differences in the number of rectal examinations and requested PSA determinations by degree of urbanization, although considerable, are clearly less great. For virtually all regions and degrees of urbanization, more patients with suspected prostate cancer are referred if more testing has been done. There was a considerable increase in the number of men who received referrals on the basis of suspected prostate cancer in 1998, but this number declined again in 1999.

Age distribution
The age distribution of the men on whom rectal touch is performed, for whom a PSA determination is applied and of men who are referred with suspected prostate cancer is given in Table 34.

Table 34: number of men for whom a rectal touch has been performed whereby a PSA determination has been requested and the number of men referred per 10 000 men by age group in 1997-1999

age group	rectal touch			PSA determination			referral		
	1997	1998	1999	1997	1998	1999	1997	1998	1999
<15	-	(5)	-	-	-	-	0	-	-
15-19	(3)	7	(3)	(3)	(2)	-	0	-	-
20-24	11	7	-	0	-	-	0	-	-
25-29	15	(2)	(5)	0	-	(3)	0	-	-
30-34	27	21	28	(2)	(5)	(4)	0	-	-
35-39	39	31	21	12	(4)	11	0	-	-
40-44	59	52	48	17	18	23	0	-	(2)
45-49	112	94	61	62	53	28	(4)	(2)	(2)
50-54	252	151	100	138	101	54	(3)	(2)	(2)
55-59	326	281	254	245	194	260	16	33	18
60-64	347	419	372	333	357	316	25	48	49
65-69	453	523	438	381	365	421	55	81	45
70-74	505	672	525	308	477	397	86	103	72
75-79	428	374	380	321	440	416	69	103	93
80-84	390	578	442	463	349	416	61	134	54
>85	144	321	155	162	361	214	0	20	78

More specific examination on 'prostate trouble' takes place from the age of 45-49. In the first instance above all rectal touch is performed as examination. From the 55-59 age group onwards application for a PSA determination is relatively more important. Referral with suspected prostate cancer increases above all from the 60-64 age group onwards.
Approximately 4.5% of men aged 60-80 were given a rectal examination in 1997. In 1998 this figure was 5% and in 1999 4.3%. A PSA determination was carried out for approximately 3.4% of men in this age group in 1997, for 4% in 1998 and for 3.8% in 1999. The number of men aged 60-80 who were referred with suspected prostate cancer rose from 0.5% in 1997 to 0.8% in 1998. 1999 saw a decline to 0.6%.

The topic 'prostate trouble' is retained on the weekly return in 2000.

A PUBLICATION ON THE BASIS OR PARTLY ON THE BASIS OF THE DATA FROM CONTINUOUS MORBIDITY REGISTRATION

BEEMSTERBOER, P.P.M.
Evaluation of Screening Programmes. Studies on breast and prostate cancer
Dissertatie, Rotterdam, 1999 (chapter 6).

WHOOPING COUGH

Vaccination against whooping cough (Bordetella pertussis) has been included in the National Vaccination Programme. The degree of cover is high (>90%).

It was surprising that in the course of the nineties whooping cough turned up again in a number of outbreaks in 1989-1990, 1993-1994 and in 1996-1997. Further analysis showed that the proportion of vaccinated persons among the indicated cases of whooping cough had increased[16].
The analysis utilized the legal notification to the Health Care Inspectorate, hospital admissions registered by the SIG Care Information, the sera diagnosis by the RIVM and the Bordetella isolation recorded by the Regional Laboratories.

Information from general practice was not available or not retrievable as such from other sources. However, for good surveillance of infectious diseases general practice is indispensable and the information from general practice supplementary to that from other sources. Further investigation of the change in the epidemiology of whooping cough is desirable. It was decided to place the topic of whooping cough on the weekly return in 1998.

The spotter physicians are asked to record every patient with whooping cough. The often atypical course of the disorder among vaccinated persons does not simplify case definition.
For whooping cough the following definition is adhered to:
- lengthy coughing complaints (longer than 3 weeks) with the more or less typical characteristics and/or
- proven Bordetella pertussis infection (in accordance with the flow scheme of optimum laboratory diagnosis of the National Coordination Structure for infectious diseases).

The number of persons with whooping cough per 10 000 persons per province group and by degree of urbanization is shown with the number for the Netherlands in Table 35.

Table 35: Number of persons with whooping cough per province group degree of urbanization and for the Netherlands per 10 000 persons, 1998-1999

	province group				degree of urbanization			Netherlands
	A	B	C	D	1	2	3	
1998	2	4	2	12	2	6	1	5
1999	3	5	11	17	5	11	7	10

The occurrence of whooping cough was unevenly distributed across the Netherlands in 1999, just as in 1998. The number of cases of whooping cough was high in the southern provinces at 17 in 10 000 persons, in comparison to 3-5 in 10 000 persons in the northern and eastern province groups. Similarly, the number of cases in urbanization category 2 (small cities (<100 000 inhabitants) and commuter municipalities) was relatively high in comparison to the incidence in the larger cities and rural areas.

Seasonal influences

Table 36 shows the occurrence of whooping cough per quarter.

Table 36: Number of persons with whooping cough per 10 000 persons per quarter in 1998-1999

	week 1-13	week 14-26	week 27-39	week 40-53
1998	1	0	1	4
1999	1	2	4	2

The number of cases reported in the last quarter of 1998 indicated a new outbreak of whooping cough. In 1999 the rise in reported cases began in the second quarter and reached its peak in the third quarter.

Age distribution

The age distribution of he persons with whooping cough is stated in Table 37.

Table 37: Number of persons with whooping cough per age group per 10 000 persons 1998-1999

age group	1998	1999
<1	(17)	(17)
1- 4	37	46
5- 9	22	36
10-14	6	27
15-19	(4)	7
20-24	(1)	(2)
25-29	(2)	7
30-34	(2)	(4)
35-39	(2)	7
40-44	-	5
45-49	(1)	5
50-54	(2)	(2)
55-59	-	(3)
60-64	-	(7)
65-69	(2)	(2)
>69	-	-

A striking feature is the finding that whooping cough occurs in all age groups. The highest incidence is found in the age group 1-4 years of age.

The topic is maintained on the weekly return in 2000.

EXTRAPOLATION OF FREQUENCIES FOUND TO THE DUTCH POPULATION

The following survey gives an approximate impression of the number of patients, consultations, actions and occurrences in the Netherlands, on the basis of the frequencies calculated from the results of the Continuous Morbidity Registration by Sentinel Stations. As was remarked in the previous reports, it must be borne in mind, when studying the following tables, that although the population of the sentinel stations is a reasonably good representation (see also p 9-10) the spotter physicians are a select group. Consequently, it cannot be automatically established to what extent the results differ from the actual situation; the differences can vary depending on the nature of the question. Particular caution should be observed regarding those topics for which there is intervention by a general practitioner. As an example one may think of the topic 'mammography'; it is quite feasible that the spotter physicians differ from the typical general practitioner in this respect. In the '(attempted) suicide' topic there proves to be a difference in respect of registrations from elsewhere, as a result of the fact that this event is presumably not always reported to the general practitioner.[17]

With regard, to the registration in itself it may be stated almost with certainty that the spotter physicians act as a select group. However, this can only be to the benefit of the project. Nevertheless, the reader is advised not only to look at the extrapolated numbers but also to consult the relevant chapters.

For a correct interpretation of the extrapolated numbers first the total Dutch population per year is given, in thousands.

Dutch population by sex in thousands, 1990-1999 (Central Bureau of Statistics)*

year	men	women	total
1990	7 358	7 535	14 893
1991	7 419	7 591	15 010
1992	7 480	7 649	15 129
1993	7 535	7 704	15 239
1994	7 586	7 755	15 341
1995	7 627	7 797	15 424
1996	7 662	7 832	15 494
1997	7 697	7 870	15 567
1998	7 740	7 914	15 654
1999	7 793	7 967	15 760

* The numbers as on 1 January of the year in question.

Extrapolation of frequencies found to the Dutch population

		frequency* incidence (per 10 000)			Netherlands** (absolute numbers)		
category	year	M	F	total	M	F	total***
influenza	1990			225			335 000
	1991			348			522 000
	1992			244			370 000
	1993			484			772 500
	1994			106			162 500
	1995			315			480 000
	1996			115			178 000
	1997			233			360 000
	1998			248			388 000
	1999			254			400 000
medical aids -worn on the body	1999			108			170 000
-in support of regular daily activities	1999			35			57 000
-necessary for medical treatment	1999			32			50 500
sterilization	1990	35	19		26 000	14 000	40 000
	1991	37	21		27 500	16 000	43 500
	1992	41	20		30 500	15 500	47 000
	1993	40	21		30 000	16 000	46 000
	1994	37	22		28 000	17 000	45 000
	1995	38	24		29 000	19 000	48 000
	1996	40	21		30 500	16 500	47 000
	1997	35	18		27 000	14 000	41 000
	1998	28	17		21 500	13 500	35 000
	1999	32	17		25 000	13.500	38 500
cumulative					924 000[1]	679 500[2]	

* see page 94

1) from 1972

2) from 1974

Extrapolation of frequencies found to the Dutch population (continuation)

	frequency* incidence (per 10 000)			Netherlands** (absolute numbers)		
category	year	M	F	total	M	F	total***
(attempted)	1990			5			7 500
suicide	1991			5			7 500
	1992			6			9 000
	1993			6			9 000
	1994			5			7 500
	1995			7			10 750
	1996			6			9 250
	1997			6			9 250
	1998			5			7 750
	1999			5			7 750
first	1990		92			69 000	
mammograms	1991		105			80 000	
	1992		92			75 500	
	1993		117			88 500	
	1994		111			86 000	
	1995		104			81 000	
	1996		87			68 000	
	1997		87			68 500	
	1998		84			66 500	
	1999		99			79 000	
repeat mammo-	1990		17			13 000	
grams	1991		26			19 500	
	1992		30			23 000	
	1993		59			21 000	
	1994		45			35 000	
	1995		39			30 500	
	1996		32			25 000	
	1997		34			27 000	
	1998		36			28 500	
	1999		36			28 750	

* see page 94

Extrapolation of frequencies found to the Dutch population (continuation)

		frequency* incidence (per 10 000)			Netherlands** (absolute numbers)		
category	year	M	F	total	M	F	total***
mammograms	1990		109			82 000	
total	1991		131			99 500	
	1992		122			93 500	
	1993		176			109 500	
	1994		156			121 000	
	1995		143			111 000	
	1996		119			93 000	
	1997		121			95 500	
	1998		120			95 000	
	1999		135			107 750	
urethritis	1992	31			23 000		
of the man	1993	23			17 500		
	1994	24			18 500		
	1995	26			20 000		
	1996	21			16 000		
	1997	17			13 000		
	1998	17			13 000		
	1999	20			15 500		
concern about	1990			16			24 000
aids	1991			16			24 000
	1992			22			33 500
	1993			23			35 000
	1994			27			41 500
	1995			21			32 000
	1996			20			31 000
	1997			24			37 500
	1998			18			28 000
	1999			17			27 750
dog bites	1998	10	10	10	7 500	8 000	15 750
	1999	12	12	12	9 250	9 500	18 750
unilateral physical							
violence	1996	6	5	5	4 250	3 750	8 000
	1997	8	10	9	6 250	7 750	14 000
	1998	8	9	8	6 250	7 250	13 500
	1999	7	11	9	5 500	8 750	14 250

* see page 94

Extrapolation of frequencies found to the Dutch population (continuation)

	frequency* incidence (per 10 000)				Netherlands** (absolute numbers)	
category	year	M	F	total	M	F	total***
gastro-enteritis	1996	51	69	60	39 000	54 000	93 000
	1997	52	57	54	40 000	45 000	85 000
	1998	64	65	65	50 000	51 000	101 000
	1999	67	74	71	52 250	59 000	111 250
herpes zoster	1997	24	30	28	18.500	23 750	43 000
	1998	28	37	33	21 500	29 250	50 750
	1999	27	37	32	21 000	29 500	111 250
"prostate trouble' -rectal touch	1997	116			89 250		
	1998	117			90 500		
	1999	90			76 500		
-PSA-determination	1997	81			62 250		
	1998	83			64 250		
	1999	84			65 500		
-referral to urologist	1997	9			7 000		
	1998	14			11 000		
	1999	11			8 500		
whooping cough	1998			5			7 500
	1999			10			15 750

* Number of patients, consultations etc. per 10 000 men and/or women (sentinel station data).

** Extrapolation of the incidences to the Dutch population (of the year in question), in round thousands.

*** As a result of rounding-off, small differences may have occurred in the totals.

Reliability intervals

Around the estimated incidences and prevalences for the whole Dutch population allowance must be made for reliability margins. The following table gives an impression of these for both relative and absolute numbers.

The table must be read as follows: if in the total patient population of the sentinel station practices of approx. 144 000 patients a frequency of 0.1 per 10 000 patients is found (1st column), then the 95% reliability interval is 0.011 - 0.5 per 10 000 (2nd column). The estimated absolute number in the Dutch population is then 156 (3rd column) and the 95% reliability interval lies between 17 and 776. The table shows how these estimates lie at a found frequency in the sentinel stations of 0.1 to 1000 per 10 000 patients with a few intermediate 'steps'. Above all at the lower frequencies the reliability intervals are wide.

Table 38: Reliability intervals of estimates of incidence and prevalence and sentinel station practices per 10 000 and the absolute numbers

frequency per 10 000		Netherlands (absolute numbers)	
frequency	95% RI	frequency	95% RI
0.1	0.011-0.5	156	17-776
1.0	0.6-1.7	1.557	895-2.659
10	8-12	15.567	13.181-18.375
100	95-105	155.671	147.838-163.911
1.000	985-1016	1.556.711	1.532.761-1.580.992

For the total group of men and women separately who each form about half the total population, the reliability margins are only somewhat wider than shown in the table. For separate 5- or 10-year age groups the reliability margins are needless to say much wider. because these groups are smaller in size. Thus in 1997 the number of reports of suicide attempts was 6 per 10 000 persons (reliability interval 4.8-74 per 10 000). For the 25-34 age group the number of suicide attempts was also 6 per 10 000 persons. However, the reliability interval (0.8-28) is much wider here.

(with thanks to Drs. R. Gijsen and Dr H. Verkleij, RIVM)

INCIDENTAL INVESTIGATIONS

Since 1976 the "incidental investigations" have existed as part of the Sentinel Station Project. These are investigations into relatively uncommon diseases or occurrences. For a list of the subjects thus treated see the second part of Appendix 3. Here the data accordingly collected for 1999 are reported. These differ from the weekly return subjects in that they are asked for only once a year, in principle immediately at the end of the year. This makes it possible to collect retrospectively data on subjects for which registration is requested in the course of the year. However, one condition in that case is that it must be something that is firmly implanted in the physician's memory.

Euthanasia (request for application)
In 1976 attention was devoted for the first time to requests made to the general practitioner for the application of euthanasia. In this registration the question is not asked whether the GP granted such a request.

The spotter physicians are informed at the beginning of the year of the coming investigation. A form is sent to all spotter physicians at the end of the year with the request that they report whether the question was asked of them in the past year by a patient himself or herself for the application of active euthanasia directly or indirectly and, if so, what the motive was for this. In addition, information is sought on the age, sex, disease, place of care or nursing and the use or otherwise of a 'euthanasia declaration'.[18]
The results per patient can be found at the end of this section. This table does not require much explanation.
There were 48 requests in 1999, and 73% of patients who requested euthanasia had a malignancy. Forty-five of the patients were cared for at home and one in hospital. Where the remaining two were accommodated is unknown.

In 42 cases, the requests were supported by a "euthanasia codicil". Forty-eight patients requested active euthanasia and four only asked for assistance in committing suicide. In 31 of the 48 cases reported, the GP consulted with a fellow doctor. In several cases in which the GPs did not consult with colleagues, the patients died naturally before euthanasia could be applied.

It also happened that no other physician was consulted as yet because that had not yet come up for discussion.

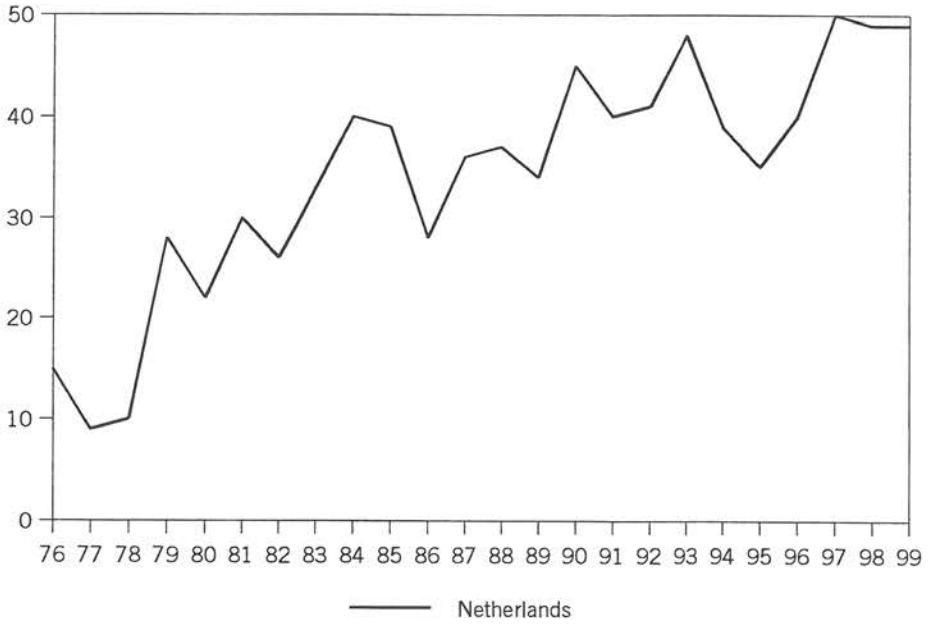
Requests for application of euthanasia 1976-1999.

The distribution of the number of requests per province and degree of urbanization and per sex may be found in Table 39 (cf. Fig. 18).

Table 39: absolute number of patients who requested the general practitioner to apply active euthanasia by sex, per province and degree of urbanization and for the Netherlands 1990-1999

			province group				degree of urbanization			Netherlands
absolute	M	F	A	B	C	D	1	2	3	
1990	28	17	14	2	22	7	4	24	17	45
1991	21	19	7	5	23	5	2	21	17	40
1992	22	19	7	8	20	6	4	20	17	41
1993	23	25	2	9	23	14	5	19	24	48
1994	26	13	4	14	14	7	10	18	11	39
1995	18	17	5	8	12	10	2	16	17	35
1996	24	16	8	9	19	4	7	20	13	40
1997	24	26	11	11	23	5	2	38	10	50
1998	27	22	3	14	25	7	5	32	12	49
1999	31	17	9	5	25	9	5	29	14	48

Figure 18: Absolute number of patients who requested the general practitioner for the application of active euthanasia or assistance with suicide, for the Netherlands, 1976-1999



Over the whole period 1976-1999 per sentinel station (i.e. not per general practitioner) the average number of requests for euthanasia and the distribution per province and degree of urbanization appears in Table 40 and Table 41.

Table 40: average number of requests per sentinel station by province group 1976-1999*

	province group			
	A	B	C	D
number of sentinel stations	6	6	19	9
average number of requests	18.7	18.2	26.9	11.3
scatter	1 - 41	7-43	13-57	4-20

* only sentinel stations that have reported over the whole period.

Table 41: average number of requests per sentinel station by degree of urbanization 1976-1999*

	degree of urbanization		
	1	2	3
number of sentinel stations	5	19	11
average number of requests	17.2	15.6	26.4
scatter	19-27	0-41	6-57

* only sentinel stations that have reported over the whole period.

These data show without change that requests for application of euthanasia are made more in the western provinces and in the cities.

Age distribution

The age distribution may be found in Table 42.

Table 42: absolute number of patients who requested the general practitioner for application of active euthanasia or assistance with suicide by age group, 1990-1999

	≤54	55-64	65-74	75-84	≥85	total
1990	7	5	13	16	4	45
1991	9	5	11	10	5	40
1992	7	7	9	12	6	41
1993	10	5	17	13	3	48
1994	4	7	15	11	2	39
1995	14	5	12	2	2	35
1996	5	10	14	7	4	40
1997	12	7	17	9	5	50
1998	6	10	19	7	7	49
1999	5	6	16	15	6	48

Survey of the reported requests

Meanwhile the data are known on 822 requests for application of euthanasia. Of these requests, 424 were made by a man (52%).

Insight into the disorders for which application of euthanasia is requested has been obtained by using the International Classification of Diseases (1975, 9th version) as a guide. One of the problems in classification is the multiple pathology that is inherent in old age. Another problem is that sometimes there is no question of known pathology: the group symptoms and incompletely described disorders includes the request of a 92-year-old lady suffering from the disorder "old age".

Five groups of disorders are used:

- malignant neoplasms,
- cardio-vascular disease,
- chronic obstructive pulmonary disease,
- symptoms and incompletely described disorders,
- other diseases, including neurological and endocrinological disorders and AIDS.

The classification of the disorders from which the patients who request euthanasia are suffering proceeded in general without difficulty, despite the above-mentioned problems; the general practitioner indicated in the questionnaire what in his or her opinion was the relevant disorder within the framework of the request.
The disorders for which euthanasia was requested are stated in Table 43.

Table 43: disorders for which euthanasia was requested, 1976-1999

	n	%
malignant neoplasms	609	74
cardio-vascular disease	51	6
chronic obstructive pulmonary disease	36	4
symptoms and incompletely described diseases	41	5
other diseases	85	10
total	822	90

The distribution of the disorders for which euthanasia was requested by age is given in Table 44.

Table 44: percentage of requests per disorder of the total number of reports by age (n=absolute numbers of requests), 1976-1999

	≤54 %	55-64 %	65-74 %	75-84 %	≥85 %
malignant disorders	75	89	89	63	25
cardio-vascular disease	0	1	2	13	23
chronic obstructive pulmonary disease	1	3	3	8	10
symptoms and incompletely described diseases	3	1	1	4	30
other diseases	21	6	6	11	13

Below the age of 85 it is above all the malignant disorders that form a reason to ask the general practitioner for euthanasia. Below the age of 55 the group other diseases forms an extremely heterogeneous group: cystic fibrosis, multiple sclerosis and AIDS are mentioned, but also vital depression.

At a later age final stages of endocrinological disorders like diabetes mellitus and terminal renal insufficiency and advanced stages of rheumatoid arthritis are given as reasons for a request.

When someone with a poor vascular system does not die from a myocardial infarction or a cerebro-vascular accident, the quality of life can be seriously impaired at a later age. Chronic obstructive pulmonary disease can also entail serious infirmity and suffering and lead to a request for euthanasia.

Table 45 gives the percentage distribution of the number of requests for application of euthanasia by patients younger and older than 65 per disorder.

Table 45: percentage of requests for application of euthanasia by patients younger and older than 65 by disorder, 1976-1999 (n=absolute numbers of requests)

	n	≤ 64 %	≥ 65 %
all disorders	823	35	65
all malignancies	609	40	60
cardio-vascular disease	51	2	98
chronic obstructive pulmonary disease	36	14	86
symptoms and incompletely described diseases	41	15	85
other diseases	85	44	56

A further subdivision of the malignancies by localization of the tumour and the age of the patient displays the following picture (Table 46).

Table 46: percentage of requests for application of euthanasia by patients younger and older than 65 with a malignancy by localization of the tumour (n=absolute numbers), 1976-1999

	n	≤ 64 %	≥ 65 %
all malignancies	609	39	61
stomach	57	39	61
colon/rectum	90	25	75
trachea/lung	162	35	65
breast	63	57	43
other	235	40	60

In the age distribution no major changes occur. When breast cancer is the motive for the request, the percentage of female patients below the age of 65 clearly differs from the percentage for the other localizations.

The use of a "euthanasia declaration" has increased in recent years: from 15% in 1984 to 88% in 1999.

Discussion

Until the beginning of the nineties it was barely possible to compare the data collected in the CMR Sentinel Stations on requests for euthanasia and help

with suicide with the results of other registrations and research (Bartelds 1989[19]).

Since then important large-scale investigations have been performed into the practices by GPs and other doctors in the Netherlands with regard to euthanasia, help with suicide and decisions around the end of patients' lives (Van der Maas et al. 1991[20], Pijnenborg et al. 1994[21], Van der Wal et al. 1994[22]). Recently a large-scale investigation has again been performed into euthanasia and other medical practices involving the end of life (Van der Maas et al. 1996[23]). In that context the notification procedure for euthanasia and help with suicide laid down in 1991 has also been evaluated (Van der Wal et al. 1996[24]).

The methodological differences between the above investigations and the registration by the spotter physicians are considerable. It would take us too far to discuss them here. One difference must, however, be mentioned: unlike the recent other investigations mentioned above the data of the Sentinel Stations originate exclusively from GPs.

In 1990 the difference in the average number of requests for euthanasia that a GP receives per year does not prove to be great: in the CMR-Sentinel stations 0.74 and in the investigation by the CBS and Erasmus University 0.8 on average per GP.

The number of more explicit requests for euthanasia at a given moment in the disease process rose between 1990 and 1995 by 9% (Van der Maas, 1996). The number of deceased increased by somewhat more than 5%.
The registration of the number of explicit requests for euthanasia by the spotter physicians likewise displays an increase in the period 1990-1995, though a slighter one that the 9% determined by Van der Maas et al. The number of requests for euthanasia seems to reach a `natural' ceiling of approx. 3 per 10 000 patients, i.e. on average 0.75 requests per GP per year.
The relatively small absolute numbers of requests to the spotter physicians may display considerable differences, so that it is necessary to work with progressive averages

A striking difference, one of the few, between the interview study and the death certificate investigation performed by Van de Maas et al. concerns the sex distribution of the patients for whom the request for euthanasia has been granted.
In 1995, according to the death certificate investigation, euthanasia was applied more to women than to men. In the interview study of 1995 and in the 1990 research the sex ratio is the opposite.
The registration of the requests for euthanasia or help with suicide by the Sentinel Stations consistently displays a greater proportion of men than women: 55% as against 45% in the period 1976-1999.

In the investigations so far one result is consistently present: it is above all patients with a malignant disorder who request euthanasia and for whom such a request is granted (approx. 80%). It is likewise established that this proportion of the patients with a malignancy decreases with greater age.

Request by the patient for active euthanasia, 1999

age	sex	disease reported	motive for the request
95	M	none	weary of life
89	F	carcinoma of the oesophagus	deterioration, pain
88	F	brain tumour	mental deterioration
87	M	prostate cancer	pain
87	F	depression	loneliness, deterioration
86	M	terminal decompensatio cordis	increasing shortness of breath
82	M	carcinoma of the bronchia	dyspnoea, deterioration
82	F	endogenous depression	repeated depression
82	F	carcinoma of the ovaries and metastasis	loss of dignity, dependence
81	F	phobia, diabetes mellitus, decompensatio cordis	'meaningless life'
80	M	COPD and KZ syndrome	anxiety, psychotic flashbacks
80	M	carcinoma of the prostate	terminal phase, severe fatigue
78	M	Grawitz tumour	suffering
77	M	carcinoma of the primary urinary passage	general depression
77	F	metastasized carcinoma of colon	pain, anxiety, deterioration
76	M	carcinoma of the lung	terminal, haemoptysis
76	M	liver metastasis, carcinoma of the intestines	fear of unnecessary long-term suffering
76	M	carcinoma of the bladder	pain, icterus, general depression
76	M	terminal COPD	hopelessness, distress
75	M	decompensatio cordis	unbearable suffering
75	F	carcinoma of the mamma, diffuse osseous metastasis	no prospects, hopelessness, loss of independence
74	M	carcinoma of the prostate	terminal
74	F	malignant lymphoma	short life expectancy
74	F	myeloid leukaemia	no treatment available
72	M	cirrhosis of the liver, lung tumour, kidney function	asked locum for euthanasia
72	M	carcinoma of the lung	pain
72	F	carcinoma of the lung	shortness of breath, hopelessness
71	M	metastasized carcinoma of the colon	pain, anxiety, deterioration
70	M	carcinoma of the stomach	hopelessness, general depression
70	V	carcinoma of the lung	pain, unbearable suffering

Request by the patient for active euthanasia, 1999 (continuation)

age	sex	disease reported	motive for the request
69	M	carcinoma of the colon	hopeless situation and personal devaluation
68	M	carcinoma of the lung	unbearable suffering
68	F	carcinoma of the mamma	liver, bone metastasis
67	M	Grawitz tumour and metastasis	pain, deterioration, dependence
67	M	metastasized carcinoma of the kidneys	fear of loss of dignity
66	M	ALS	increasing dyspnoea
65	M	COPD and carcinoma of the colon	unbearable suffering
64	F	metastasized ovarian carcinoma	pain
61	M	decompensatio cordis, diabetes mellitus	anxiety, increasing dyspnoea
60	M	metastasized carcinoma of the bronchus	pain, dyspnoea, deterioration
60	M	metastasized carcinoma of the thyroid	loss of dignity
60	M	carcinoma of the lung and metastasis	unbearable suffering
56	F	metastasized carcinoma of the lung	risk of suffocation
50	F	ovarian carcinoma	pain
49	M	ALS	choking
46	F	carcinoma of the mamma	hopelessness
43	M	M. Grawitz with lung metastasis	dyspnoea
33	M	high spinal cord lesion	hopelessness

This research will be continued in 2000.

EATING DISORDERS

Anorexia nervosa and bulimia nervosa are serious eating disorders of which it is not clear whether the degree of occurrence is increasing. From 1985 to 1989 both eating disorders were registered by the spotter physicians in an incidental investigation. By means of a new registration in 1995 and following years the question whether there is an increase in these eating disorders can possibly be answered.

Retrospectively, in 1999 the spotter physicians were asked a number of questions per patient suffering from an eating disorder. Did this relate to an eating disorder diagnosed for the first time in 1999 and was the patient referred to another aid worker on account of the disorder? Other questions concerned the composition of the family from which the patient came and a number of physical aspects of the disorder.

As in the first registration period from 1985 to 1989 the investigation is taking place under the direction of Dr. H.W. Hoek, psychiatrist/epidemiologist and chairman of the steering group Eating Disorders the Netherlands.

Table 47 gives the distribution of the number of patients regarding whom the GP has diagnosed an eating disorder (absolute and per 10 000 inhabitants) by province group and degree of urbanization and for the Netherlands in 1985-1989 and 1995-1999. These numbers have not yet been corrected for duplication and contain both incident and prevalent numbers. The numbers stated should therefore be interpreted with the necessary reserve.

Table 47: Absolute number of patients regarding whom the GP has diagnosed an eating disorder, by province group and degree of urbanization and for the Netherlands in 1985-1989 and 1995-1999 and the numbers per 10 000 women

	province group				degree of urbanization			Netherlands
	A	B	C	D	1	2	3	
absolute year average:								
1985-1989	7	10	35	10	6	33	24	61
1995	11	11	26	16	5	49	10	64
1996	6	8	22	9	3	37	5	45
1997	12	10	11	9	8	29	4	42
1998	10	17	15	9	5	36	10	51
1999	4	14	12	13	1	38	4	43
per 10 000 women 1995	8.9	6.4	8.1	9.1	5.2	10.5	6.9	8.1
1996	4.7	4.7	8.9	4.8	3.0	8.9	3.3	6.2
1997	7.8	5.5	4.2	4.8	6.5	5.3	4.3	5.3
1998	7.2	9.1	6.7	5.6	8.6	7.1	11	7.1
1999	3.3	8.5	5.4	8.4	1.1	7.9	4.4	5.2

The eastern and southern regions reported the highest number of female patients with an eating disorder in 1999.
Eating disorders were most frequently reported in urbanized areas and commuter municipalities in 1999.

In Table 48 the distribution of the eating disorders by age group follows.

Table 48: Absolute number of reports of patients regarding whom the GP has diagnosed an eating disorder, by age for 1985-1989 and for 1995-1999

women	1985-1989 aver.	1995	1996	1997	1998	1999
1- 4	-	-	-	1	-	-
5- 9	-	-	-	1	-	-
10-14	1	1	1	0	2	-
15-19	8	13	15	10	9	7
20-24	12	14	9	11	14	7
25-29	14	10	7	7	5	6
30-34	6	9	4	3	5	6
35-39	7	8	6	3	4	9
40-44	4	2	2	4	11	6
45-49	1	4	1	1	1	-
50-54	1	2	-	-	-	-
55-59	1	-	-	-	1	1
80-84	-	-	-	-	-	1

In 1999 there were four reports of male patients with an eating disorder.

Another incidental investigation of eating disorders will be carried out in 2000.

A PUBLICATION ON THE BASIS OR PARTLY ON THE BASIS OF THE DATA FROM THE CONTINUOUS MORBIDITY REGISTRATION SENTINEL STATIONS

HOEK, W.HANS, AAD I.M. BARTELDS JACQUOLINE J.F. BOSVELD, YOLANDA VAN DER GRAAF, VERONIQUE E.L. LIMPENS, MARGO MAIWALD, CAROLINE J.K. SPAAIJ.
Impact of Urbanization on Detection Rates of Eating Disorders.
Am J Psychiatry, 1995; 152:1272-1278.

Objective: The purpose of this study was to examine the incidence of anorexia nervosa and bulimia nervosa among patients in primary care and to evaluate the impact of urbanization, age and sex differences, and changes over time. **Method:** During 1985-1989, 58 general practitioners, trained in diagnosing eating disorders, registered all of their patients who had diagnoses of anorexia nervosa and/or bulimia nervosa according to strict criteria. The study population (N=151,781) was 1% of the population of the Netherlands; the distribution of sexes, ages, geographical locations, and degrees of urbanization in the study group was representative of the Dutch population. Main outcome measures were rates of newly detected cases and age-adjusted rates ratios. **Results:** The crude annual incidence rate of detected cases in primary care per 100,000 person-years was 8.1 for anorexia nervosa and 11.5 for bulimia nervosa. The incidence of bulimia nervosa was lowest in rural areas, intermediate in urbanized areas, and highest in the cities (6.6, 19.9, and 37.9, respectively, per 100,000 females per year); no rural-urban differences for anorexia nervosa were found. Pronounced sex and age differences in incidence rates were observed. Over the 5-year period, there was no time trend in the incidence of anorexia nervosa, but the incidence of bulimia nervosa tented to

increase. **Conclusions:** The incidence rates of eating disorders-as defined by detection rates in primary care-are higher than previously reported. Urbanization seems to be a risk factor for bulimia nervosa but not for anorexia nervosa.

HOEK, H.W., M. MAIWALD, A. BARTELDS, J. BOSVELD.
The incidence of eating disorders and the influence of urbanization.
1992, Abstract Fifth International Conference on Eating Disorders, New York

HOEK, H.W.
The incidence and prevalence of anorexia nervosa and boulimia nervosa in primary care.
Psychological Medicine, 1991, 21, p. 455-460

AGGRESSION TOWARDS THE GENERAL PRACTITIONER AND THE ASSISTANT

Attention to and concern about aggression also towards social workers are increasing. Professional organizations are organizing congresses at which aggression towards assistants and physicians is discussed.

By means of an annual gauging in the sentinel station practices aggression towards the GP or towards the GP's assistant will be registered.
The first gauging was held in 1997.

The spotter physicians are asked to report whether signs of aggression towards the assistant or the physician have occurred in heir practice. A distinction is made between aggression shown during the normal daily practice and aggression during evening, night and weekend duty. It is further asked whether a patient registered in one's own practice is involved or a patient from another practice.

The signs of aggression are broken down into threatening with physical violence, threatening with a weapon, actual violence, verbal and sexual intimidation and other signs taken as a threat.

Finally, it is indicated per registered sign of violence whether this was directed towards the assistant or the GP.

Of the 43 sentinel stations, 24 report one or more situations in which the assistant or the GP felt themselves aggressively approached in some way or the other.
This is considerably less than in 1997, but comparable to 1998.
The distribution of the number of sentinel stations that reported aggression by province group and by degree of urbanization is shown in Table 49.

Table 49: number of sentinel stations that reported aggression towards assistant or GP by province group and degree of urbanization in 1997-1999 (% between brackets)

	province group				degree of urbanization			Netherlands
	A	B	C	D	1	2	3	
1997	3 (50)	8 (72)	11 (73)	9 (90)	5 (71)	19 (70)	7 (83)	31 (74)
1998	2 (33)	4 (35)	9 (60)	6 (60)	1 (14)	15 (55)	5 (62,5)	21 (50)
1999	1 (26)	8 (67)	10 (13)	5 (55)	3 (43)	11 (38)	4 (57)	24 (56)

Nearly ½ of the sentinel stations were concerned with aggression in 1999.
In the cities more sentinel stations report aggression towards the assistant and the GP than outside the cities.

During the normal opening hours it is above all the assistants in the practice that are aggressively approached; verbal intimidation occurs considerably more often than sexually tinged intimidation or threats with physical violence or a weapon (22.4 times as against 9 times respectively).
The GPs are less frequently subjected to verbal intimidation during the daytime (76 times) but threatened relatively more often (6 times).

During evening, night and weekend duty fewer cases of threats or intimidation in the absolute sense are reported. Relatively speaking, threats or intimidation will probably occur more frequently, but to support this statement the necessary data on the number of patient-practice contacts during the day and during the duty are not available. The GPs are above all verbally intimidated during the duty; threats of physical violence or with a weapon occur much less often (13 threats of violence as against 91 reports of verbal intimidation). The threats of physical violence or with a weapon are voiced during the duty above all by patients registered with other GPs than the GP who is on duty at that moment (9 as against 4). The distribution of the verbal intimidation is 6 times verbal intimidation by another than 'own' patient as against 21 times our patient.
There are great differences between the GPs; in the case of 'soft' matters such as threats and intimidation there is a chance of differences in interpretation. Factual violence towards assistant or GP is rare.

This incidental investigation will be repeated in 2000.

GENERAL REMARKS

1. The weekly return for 2000 has been compiled as follows by the Counselling Committee.

a. Influenza and influenza-like illnesses
b. Zanamivir (Relenza) prescriptions
c. Incontinence material
d. Chicken pox
e. Depression
f. Herpes Zoster
g. Diabetes mellitus
h. Suicide and attempted suicide
i. Out-patient and clinical mammography
j. Male urethritis
k. Concern about AIDS
l. Gastro-enteritis
m. Prostate trouble
n. Whooping cough

2. In 2000 the incidental studies will cover euthanasia, eating disorders, aggression towards GP and GP assistant and diabetes mellitus.

3. Suggestions relating to the questions on the weekly returns will be gladly received by the Counselling Committee.

4. Data from this report may be reproduced with acknowledgment of the source.

A.I.M. Bartelds M.D., General practitioner/project leader.

LIST OF PUBLICATIONS ON THE BASIS OR PARTLY ON THE BASIS OF THE DATA FROM CONTINUOUS MORBIDITY REGISTRATION SENTINEL STATIONS

GENERAL

BARTELDS, A.I.M., J. FRACHEBOUD, J. VAN DER ZEE.
The Dutch Sentinel Practice Network; relevance for public health policy.
Nivel, Utrecht, 1989

The Dutch sentinel practice network; relevance for public health policy, Nivel 1989, considers the now 20-year history of the Continuous Morbidity Registration Sentinel Stations the Netherlands.

The book consists of two parts.

In the first part general aspects are discussed: the origin of the project at the end of the sixties and the objectives, organization and procedure. For a number of characteristics (age and sex, size of practice etc.) a comparison is made between the spotter physicians and the total population of Dutch general practitioners. On other aspects, including the attitude of the physicians with regard to a number of facets of the work of the GP, the spotter physicians are compared with populations of GPs who have participated in other Nivel studies. Finally, the results are discussed of the analysis of the registration pattern of the spotter physicians over five years.

Topics varying from influenza(-like) illness to requests for application of euthanasia are discussed in the second part. A choice has been made among the long series of topics that have appeared on the weekly return during the existence of the sentinel stations or have been the subject of an incidental investigation.

The authors of the chapters in the second part of the book are often also the applicants for registration of a certain topic. One of the questions that is discussed in the chapters is what the importance has been of registration of the topics by the CMR Sentinel Stations.
The results of registration of topics are presented in a number of chapters in a different way from that usual in the annual reports, of which to date 18 have been published (1970 to 1987 inclusive).

In several respects this publication is therefore an extension of the usual publication policy of the CMR Sentinel Stations.
The book has been published in English to meet the need that exists in other countries for information on both Dutch health care and more specifically, the functioning of the Dutch general practitioner. The CMR Sentinel Stations is one of the projects in which information is collected on a continuous basis on problems and diseases submitted to the GP and action taken by the GP.

BARTELDS, A.I.M.
Validation of Sentinel Data.
Das Gesundheitswesen. 55 (1993) 3-7. Sonderheft 1.

The Dutch Sentinel Practice Network "de Peilstations" started in 1970. The purpose of this network is to gain a better insight into the epidemiology of a number of illnesses and conditions as they are presented to the general practitioner. The network is sponsored by the Ministry of Welfare, Public Health and Culture. Value was attached to the distribution of the spotter physicians over the country and by degree of urbanisation. The presence of 1% of the population of the four province groups and the three urbanisation groups has been observed in the practices of the spotter physicians. The completeness of the registration, the internal and the external validity of the data collected by the physicians are discussed.

CASTEREN, V. VAN, DECLERECQ, E, e.a.
Study of the use of some selected groups of laboratory tests in general practice Brussel: Eurosentinel
Instituut voor Hygiëne en Epidemiologie, 1991

COLLETTE, H.J.A., H. BIJKERK.
Vijftien jaar Peilstations Nederland, 1970-1984.
Huisarts en Wetenschap; 28, 1985, no. 6, p. 207-210

SCHWARTZ, F.W. PROF. DR. e.a.
The European Denominator Project.
Comparison and Harmonisation of Denominator Data for Primary Health Care Research in Countries of the European Community.
Hannover, 1996

BURN INJURIES

RIJN, O.J.L., VAN,
Burn injuries among young children.
Dissertatie Maastricht, 1991 (hoofdstuk 2)

CEREBROVASCULAIR ACCIDENT

MEER, K. VAN DER, R.J.A. SMITH.
C.V.A.-patiënten in de huisartspraktijk: een onderzoek onder 1 procent van de Nederlandse bevolking.
Huisarts en Wetenschap; 33, 1990, no. 4, p. 141-144

MEER, K. VAN DER , R.J.A. SMITH.
T.I.A.-patiënten in de huisartspraktijk: een onderzoek onder 1 procent van de Nederlandse bevolking.
Huisarts en Wetenschap; 33, 1990, no. 5, p. 184-188

MEER, K. VAN DER, R.J.A. SMITH, G.J. BREMER.
Cerebrovasculaire aandoeningen gepeild.
Utrecht: NIVEL, 1990

CHRONIC BENIGN PAIN

KERSSENS, J.J. P.F.M. VERHAAK, A.I.M. BARTELDS, M.J. SORBI, J.M. BENSING.
The Epidemiology of Chronic Benign Pain Disorders in General Practice.
Submitted to PAIN, June, 1999

DIABETES MELLITUS

RUWAARD, DIRK, RONALD GIJSEN, AAD I.M. BARTELDS, REMY A. HIRASING, HARRY VERKLEIJ, DAAN KROMHOUT.
Is the Incidence of Diabetes Increasing in All Age-groups in the Netherlands?
Diabetes Care, volume 19, number 3. March 1996.

MYOCARDIAL INFARCTION

VAN DER PAL-DE BRUIN, K.M., H. VERKLEIJ, J. JANSEN, A. BARTELDS, D. KROMHOUT.
The incidence of suspected myocardial infarction in Dutch general practice in the period 1978-1994.
European Heart Journal, 1998, 19, 429-434

SENTINEL HEADACHE

LINN, F.H.H., E.F.M. WIJDICKS, Y. VAN DER GRAAF, F.A.C. WEERDESTEYN-VAN VLIET, A.I.M. BARTELDS, I. VAN GIJN.
Prospective study of sentinel headache in aneurysmal subarachnoid haemorrhage.
The Lancet 1994; 344: 590-593.

MALIGNITIES

VECHT-HART, C.M., P.A.H. VAN NOORD.
Kankerregistratie gepeild.
Utrecht: NIVEL, 1989

OTITIS MEDIA ACUTA

CULPEPPER, L., J. FROOM,
Acute Otitis Media in Adults.
Journal of the American Board of Family Practice, 1993.

FROOM, J., L CULPEPPER, P. GROB.
Diagnosis and antibiotic treatment of acute otitis media: report from International Primary Care Network;
Britisch Medical Journal; vol. 300, 1990, p. 582-586

REFERRAL FOR LOGOPEDIA

DEKKER, J., J.M. DRIESSEN, H. STUMPEL, e.a.
Verwijzing door huisartsen naar logopedisten.
Huisarts en Wetenschap : 35, 1992, no. 11, p. 425-427

REFERRAL/AUTHORIZATION OF PHYSIOTHERAPY

KERSSENS, J.J., P.P. GROENEWEGEN.
Referals to psysiotherapie: the relation between the number of refferals and the inclination to refer.
Social Science Medicine; 30, 1990, no. 7, p. 797-804

APPENDIX 1

CONTINUOUS MORBIDITY REGISTRATION, SENTINEL STATIONS
Participating General Practitioners in 1999

Name:	Residence:	Province:
A.A.E.E. Brockmöller	't Zand	Groningen
J.Th. Ubbink	Groningen	Groningen
Y. Wapstra/K. Tanis (group practice)	Franeker	Friesland
S. Vriesinga	Oostermeer	Friesland
F.M. van Soest/R.F. Sparenburg/ H.D.W.A. van Gijsel/Ms. M. Schellens/ Ms. J. Sanders/S.A. van Dijk (group practice)	Assen	Drenthe
H.E. Maillette de Buy Wenniger*)	Schoonoord	Drenthe
S. Kranenborg	Deventer	Overijssel
Th.J. van Dam/P.P.A. Kemps/B. Jansen (group practice)	Swifterbant	Flevoland
H. Kroeze	Zeewolde	Zuid-Flevoland
E.J. van Apeldoorn	Heerde	Gelderland
Dr. S. Verhoeven	Heerde	Gelderland
D. de Iong*)	Laren	Gelderland
D.G. de Jong	Barneveld	Gelderland
J.H. de Boer(to 1-4-'99)/Mw. I. Bruin-van Ingen/ Mw. M. Burger/J.G.B. van der Wielen(from 1-4-'99) (group practice)	Zelhem	Gelderland
B.G.W.M. Arts	Nijmegen	Gelderland
M.A.J. Janssen	Nijmegen	Gelderland
W.J.A. Besselink	Doesburg	Gelderland
M.T.W. van der Velden	Dieren	Gelderland
Ms. I.K.I. de Jongh-Killian/F.K.A. Fokkema (group practice)	Amersfoort	Utrecht
P.J. Kromeich/Mw. L.G.M. Ketting-Stroet/ Mw. A.E. van Niel (group practice)	Utrecht	Utrecht
M.M. Spoor	Alkmaar	Noord-Holland
A.I.M. Bartelds	Huizen	Noord-Holland
C.W. Willeboordse/Mw. A.M. Kruize-Mosch (group practice)	Heiloo	Noord-Holland
H.R. Neijs*)	Broek in Waterland	Noord-Holland

Appendix 1 (continuation)

Participating General Practitioners in 1999

Name:	Residence:	Province:
D.E. Kuenen	Haarlem	Noord-Holland
Ms. Y.E.V. van Hazel/P. Olie (group practice)	Amsterdam	Noord-Holland
Ms. A.J. Arbouw/Ms. Y.M. van der Dun (group practice)	Amstelveen	Noord-Holland
Mw. A. Verdam-de Witte	Hilversum	Noord-Holland
J. Hoornweg/Ms. E. Hoornweg-Sleeboom/ (group practice)	Voorhout	Zuid-holland
A.M. van Meurs	The Hague	Zuid-Holland
J.C.B.M. Rensing	The Hague	Zuid-Holland
D. Pasman	Maassluis	Zuid-Holland
C.M. Limburg	Rotterdam	Zuid-Holland
Ms. S.G. Vreugdenhil/R.J. Kuiper (group practice)	Dordrecht	Zuid-Holland
R.R. Lankhorst	Middelburg	Zeeland
P.R.L. Vercauteren/H.J.W.A. Meijerink/ J.A.P.A. Warringa(group practice)	Terneuzen	Zeeland
A.F.A. van der Reepe/W.L.M. Rijnders (group practice)	Etten	Noord-Brabant
J.A.M. Keulers/Ms. W. van der Laan (group practice)	Ravenstein	Noord-Brabant
M.G.A.M de Gouw	Rosmalen	Noord-Brabant
C.H.G.M. van Moorsel	Uden	Noord-Brabant
A.M.P. Linsen	Oirschot	Noord-Brabant
S.P.F. van Rijn/M.L.F. Klomp (group practice)	Eindhoven	Noord-Brabant
R.A.M. de Jong	Maastricht	Limburg

*) With dispensary

Weekstaat t.b.v. centrale registratie
CONTINUE MORBIDITEITSREGISTRATIE, PEILSTATION 1999

Proj. no.			verslagjaar		Code peilstat.	Week no.	
4	0	0	9	9			

	Leeftijdsgroep	Influenza (-achtig) ziektebeeld[2]	Hulpmiddel: Op het lichaam gedragen[3]	Hulpmiddel: Ter bevordering van ADL-functie[4]	Hulpmiddel: Noodzakelijk voor de medische behandeling[5]	Hondenbeten[6]		Herpes Zoster		Sterilisatie verricht[7]		Suïcidepoging[8]	Mammografie: Na 1-1-1998 voor 1e maal	Mammografie: Herhalingsonderzoek	Urethritis bij man	C.A.I.D.S.[9] (concern about AIDS)	Fysiek geweld[10]		Gastro-enteritis[11]		Prostaatlijden: rectaal toucher	Prostaatlijden: PSA	Prostaatlijden: verwijzing verdenking prostaatca	Kinkhoest	Leeftijdsgroep	
		M+V	M+V	M+V	M+V	M	V	M	V	M	V	M+V	V	V	M	M+V	M	V	M	V	M	M	M	M+V		
1	< 1																								< 1	
2	1-4																								1-4	
3	5-9																								5-9	
4	10-14																								10-14	
5	15-19																								15-19	
6	20-24																								20-24	
7	25-29																								25-29	
8	30-34																								30-34	
9	35-39																								35-39	
10	40-44																								40-44	
11	45-49																								45-49	
12	50-54																								50-54	
13	55-59																								55-59	
14	60-64																								60-64	
15	65-69																								65-69	
16	70-74																								70-74	
17	75-79																								75-79	
18	80-84																								80-84	
19	≥ 85																								≥ 85	

Week nummer:_____ Opgemaakt d.d.:_____

Aantal dagen gerapporteerd (zie voetnoot 1) 0 ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐

Zie ommezijde voor voetnoten

Appendix 3a

Subjects on the weekly returns in alphabetical order 1970-2000

subjects	
abortion (spontaneous)	1982-1983
abortion (request)	1970-1975
abortus provocatus	1971-1979
accidents	1971
accidents in the private sector	1981-1983
acute unusual headache	1988-1993
admission of psychiatric patient	1988
AIDS (concern about)	1988-2000
Aids and appliances requested/prescribed	1999
alcoholism	1975
anti-hypertensivum or diuretic (prescription)	1976
battered child syndrome (suspicion of)	1973-1974
bee or wasp sting	1992-1993
bites by pets	1986
burns	1988-1989
cervical smear	1976-1998
cerebrovascular accident	1986-1987
chicken pox	2000
chronic benign pain disturbance	1995-1996
dementia	1987-1988
depression	1983-1985 and 2000
diabetes mellitus	1980-1983 and 1990-1994 and 2000
diarrhoea e causa ignota (acute)	1970
discharged psychiatric patient	1986-1988
dog bites	1987 and 1998-1999
drug-use (consultation)	1972-1973 and 1979-1981
dwelling (certificate for another)	1975
echography applied for	1988
exanthema e causa ignota	1970
family planning (consultations)	1970-1976
gastro-enteritis	1992-1993 and 1996-2000
hay fever	1978-1982
hepatitis	1994
herpes zoster	1997-2000
influenza (-like illness)	1970-2000
liver, gall bladder and pancreas disease	1995-1997
malignancies	1984-1986

Subjects on the weekly returns in alphabetical order 1970-2000 (continuation)

subjects	
measles/mumps	1990
measles	1975-1979
medical aids	2000
mononucleosis infectiosa	1977-1979 and 1991
morning-after pill (prescription)	1972-1991
musculo-skeletal system (trauma of)	1984
myocardial infarction (suspicion of	1978 and 1983-1985
and/or confirmed)	1991-1994
oestrogens prescribed	1994-1998
otitis media acuta	1971 and 1986
out-patient or clinical mammography	1988-2000
Parkinson's disease	1980-1985
partus immaturus	1982-1983
partus at gravidity ≥28 weeks	1982-1983
penicillin (prescription and side-effects)	1982-1983
physical violence	1996-1999
p.i.d. (pelvic inflammatory disease)	1994-1998
pregnancy (despite contraception)	1987-1991
prescription of Rohypnol	1987-1988
prostaat trouble	1997-2000
psoriasis	1976-1977
referrals	1984
referrals for physiotherapy	1985
referrals for psycho-social problems	1986-1988
referrals for logopedics	1989-1990
rubella (-like illness)	1971
side-effect of cosmetics (suspicion of)	1992-1993
skull traumas in traffic	1975-1977
smoking (consultation with regard to addiction)	1974
sport traumas	1979-1983 and 1992-1993
sterilization of the man performed	1972-1999
sterilization of the woman performed	1974-1999
suicide (attempted)	1970-1972 and 1979-2000
tonsillectomy or adenotomy	1971
tranquillizer (prescription)	1972-1974
ulcus ventriculi/duodeni	1975
ulcus pepticum	1985-1986
urinary tract infection (prescription of medicine)	1977
urethritis of the man	1992-2000
whooping cough	1998-2000
zanamivir(relenza)	2000

Appendix 3b

Incidental investigations and other extra investigations, 1977-2000 (alphabetical)

subjects	
acute intoxication in the work situation	1994-1995
aggression towards GP and assistant	1997-2000
alternative forms of treatment (registration feasible?)	1980
anorexia nervosa and boulimia	1985-1989 and 1995-2000
diabetes mellitus	2000
euthanasia (request for application)	1976-2000
incest	1988
influenza (vaccination against)	1992
Lyme disease	1991-1994
malignancies	1982-1983
mastitis puerperalis	1982
multiple sclerosis	1977-1982
serum collection	1980 and 1985
regretting sterilization	1980-1984

Appendix 4

Age structure of the population of the Netherlands by sex, in thousands, 1 January 1999 (C.B.S.)

age	men	women	total
0- 4	500	477	977
5- 9	509	486	995
10-14	483	462	945
15-19	473	451	924
20-24	489	478	967
25-29	626	608	1 234
30-34	671	641	1 312
35-39	659	637	1 296
40-44	604	590	1 194
45-49	575	557	1 132
50-54	567	547	1 114
55-59	420	410	830
60-64	350	359	709
65-69	302	339	641
70-74	240	309	549
75-79	175	269	444
80-84	93	183	267
≥ 85	57	164	221
total	7 793	7 967	15 760

(As a result of rounding-off, small differences may have occurred in the totals.)

LEEFTIJDSGROEP NAAR ZIEKTEBEELD CUMULATIEF ALLE PEILSTATIONS GESTANDAARDISEERD 04.07.2000

ALLE PEILSTATIONS EXCL.28 JAAR: 1999 WEEK: 1 t/m 52

LEEFTIJDS-GROEP	POPULATIE			"INFLU-ENZA"	HULPMIDDEL			HONDENBETEN			STERILISATIE		
				"INFLU-ENZA"	OP LI-CHAAM	ADL-FUCTIE	NOODZA-KELIJK	HONDENBETEN			STERILISATIE		
	M	V	T	M+V	M+V	M+V	M+V	M	V	T	M	V	T
<1 JR	596	581	1177	535	8	0	42	17	0	8	0	0	0
1-4 JR	3285	3065	6350	450	6	0	14	9	26	17	0	0	0
5-9 JR	4091	3916	8008	256	27	0	21	17	13	15	0	0	0
10-14 JR	3801	3744	7546	167	15	7	11	18	19	19	0	0	0
15-19 JR	3890	3756	7646	237	16	5	17	8	13	10	0	0	0
20-24 JR	4034	4634	8668	219	33	2	6	5	19	13	5	2	3
25-29 JR	5751	5874	11624	184	23	4	12	7	5	6	14	9	11
30-34 JR	5645	5532	11177	281	47	9	13	7	11	9	69	27	48
35-39 JR	5343	5271	10614	302	36	4	15	17	11	14	122	89	106
40-44 JR	4832	4752	9583	257	81	10	17	14	19	17	132	84	109
45-49 JR	4718	4550	9268	275	68	4	25	17	13	15	42	9	26
50-54 JR	4257	4152	8408	252	89	14	27	19	2	11	7	0	4
55-59 JR	3272	3259	6532	276	130	32	29	9	15	12	6	3	5
60-64 JR	2880	2958	5839	240	137	24	50	7	10	9	0	0	0
65-69 JR	2468	2811	5279	220	203	47	61	12	11	11	0	0	0
70-74 JR	1940	2558	4498	231	305	87	111	21	12	16	0	0	0
75-79 JR	1393	2081	3474	213	550	262	147	0	14	9	0	0	0
80-84 JR	746	1477	2223	148	729	481	166	27	0	9	0	0	0
>85 JR	515	1380	1895	206	1182	617	206	19	0	5	0	0	0
TOTAAL	63455	66350	129805	254	108	36	32	12	12	12	32	17	24

ALLE PEILSTATIONS EXCL.28 JAAR: 1999 WEEK: 1 t/m 52

LEEFTIJDS-GROEP	POPULATIE			HERPES ZOSTER			SUICIDE (POGING)	MAMMOGRAFIE		FYSIEK GEWELD			URETHRI-TIS	CAIDS
				HERPES ZOSTER			SUICIDE (POGING)	1-1-1998	HERHA-LING	FYSIEK GEWELD			URETHRI-TIS	CAIDS
	M	V	T	M	V	T	M+V	V	V	M	V	T	M	M+V
<1 JR	596	581	1177	0	17	8	0	0	0	0	0	0	0	0
1-4 JR	3285	3065	6350	9	7	8	0	0	0	0	3	2	0	2
5-9 JR	4091	3916	8008	12	23	17	0	0	0	2	8	5	0	0
10-14 JR	3801	3744	7546	8	24	16	1	0	0	11	13	12	0	1
15-19 JR	3890	3756	7646	28	5	17	5	16	3	26	29	27	13	29
20-24 JR	4034	4634	8668	15	17	16	5	41	6	15	9	12	15	45
25-29 JR	5751	5874	11624	16	24	20	5	58	10	7	15	11	26	51
30-34 JR	5645	5532	11177	23	22	22	3	121	20	7	22	14	39	31
35-39 JR	5343	5271	10614	30	13	22	11	188	51	6	8	7	36	20
40-44 JR	4832	4752	9583	21	27	24	9	246	101	10	13	11	12	8
45-49 JR	4718	4550	9268	19	42	30	6	295	112	4	11	8	21	16
50-54 JR	4257	4152	8408	28	39	33	4	166	84	9	5	7	31	8
55-59 JR	3272	3259	6532	46	74	60	2	123	64	6	9	8	15	5
60-64 JR	2880	2958	5839	66	105	86	9	64	51	0	0	0	24	3
65-69 JR	2468	2811	5279	57	92	76	4	78	25	4	11	8	45	2
70-74 JR	1940	2558	4498	67	102	87	4	66	20	0	4	2	41	2
75-79 JR	1393	2081	3474	43	82	66	3	53	19	0	0	0	0	0
80-84 JR	746	1477	2223	94	41	58	9	27	20	0	14	9	0	0
>85 JR	515	1380	1895	58	36	42	0	0	0	0	0	0	0	0
TOTAAL	63455	66350	129805	27	37	32	5	99	36	7	11	9	20	17

ALLE PEILSTATIONS EXCL.28 JAAR: 1999 WEEK: 1 t/m 52

LEEFTIJDS-GROEP	POPULATIE			GASTRO-ENTERITIS			PROSTAATLIJDEN			KINK-HOEST
				GASTRO-ENTERITIS			RECTAAL TOUCHER	PSA	VERWIJ-ZING	KINK-HOEST
	M	V	T	M	V	T	M	M	M	M+V
<1 JR	596	581	1177	319	379	348	0	0	0	17
1-4 JR	3285	3065	6350	259	271	265	0	0	0	46
5-9 JR	4091	3916	8008	110	130	120	0	0	0	36
10-14 JR	3801	3744	7546	82	80	81	0	0	0	27
15-19 JR	3890	3756	7646	57	53	55	3	0	0	7
20-24 JR	4034	4634	8668	69	82	76	0	0	0	2
25-29 JR	5751	5874	11624	54	60	57	5	3	0	7
30-34 JR	5645	5532	11177	60	52	56	28	4	0	4
35-39 JR	5343	5271	10614	32	66	49	21	11	0	7
40-44 JR	4832	4752	9583	48	46	47	48	23	2	5
45-49 JR	4718	4550	9268	28	48	38	61	28	2	5
50-54 JR	4257	4152	8408	49	39	44	101	94	2	2
55-59 JR	3272	3259	6532	37	43	40	254	260	18	3
60-64 JR	2880	2958	5839	45	44	45	372	316	49	7
65-69 JR	2468	2811	5279	65	53	59	438	421	45	2
70-74 JR	1940	2558	4498	31	63	49	526	397	72	0
75-79 JR	1393	2081	3474	36	43	40	380	416	93	0
80-84 JR	746	1477	2223	27	68	54	442	416	54	0
>85 JR	515	1380	1895	58	94	84	155	214	78	0
TOTAAL	63455	66350	129805	67	74	71	98	84	11	10

CONTINUE MORBIDITEITSREGISTRATIE PEILSTATIONS BLAD 1

PROVINCIEGROEP NAAR ZIEKTEBEELD CUMULATIEF ALLE PEILSTATIONS GESTANDAARDISEERD 04.07.2000

ALLE PEILSTATIONS EXCL.28 JAAR: 1999 WEEK: 1 t/m 52

PROVINCIE-GROEP	POPULATIE			"INFLU-ENZA"	HULPMIDDEL			HONDENBETEN			STERILISATIE		
				"INFLU-ENZA"	OP LI-CHAAM	ADL-FUCTIE	NOODZA-KELIJK	HONDENBETEN			STERILISATIE		
	M	V	T	M+V	M+V	M+V	M+V	M	V	T	M	V	T
GR+FR+DR	11952	12276	24229	163	111	33	24	4	9	7	18	9	13
OV+GLD+FLE	16437	16462	32900	279	93	40	59	21	26	23	56	16	36
UTR+NH+ZH	19680	22104	41784	281	143	47	27	7	6	7	24	23	23
ZLD+NB+LIM	15387	15509	30895	263	73	19	19	16	9	13	27	17	22
TOTAAL	63456	66351	129807	254	108	36	32	12	12	12	32	17	24

CONTINUE MORBIDITEITSREGISTRATIE PEILSTATIONS BLAD 2

PROVINCIEGROEP NAAR ZIEKTEBEELD CUMULATIEF ALLE PEILSTATIONS GESTANDAARDISEERD 04.07.2000

ALLE PEILSTATIONS EXCL.28 JAAR: 1999 WEEK: 1 t/m 52

PROVINCIE-GROEP	POPULATIE			HERPES ZOSTER			SUICIDE (POGING)	MAMMOGRAFIE		FYSIEK GEWELD			URETHRI-TIS	CAIDS
				HERPES ZOSTER			SUICIDE (POGING)	1-1-1998	HERHA-LING	FYSIEK GEWELD			URETHRI-TIS	CAIDS
	M	V	T	M	V	T	M+V	V	V	M	V	T	M	M+V
GR+FR+DR	11952	12276	24229	18	28	23	2	68	20	6	11	9	9	9
OV+GLD+FLE	16437	16462	32900	28	46	37	5	105	72	6	6	6	29	14
UTR+NH+ZH	19680	22104	41784	36	43	39	4	115	23	6	10	8	25	21
ZLD+NB+LIM	15387	15509	30895	23	28	26	7	94	28	12	16	14	12	19
TOTAAL	63456	66351	129807	27	37	32	5	99	36	7	11	9	20	17

CONTINUE MORBIDITEITSREGISTRATIE PEILSTATIONS

BLAD 3

PROVINCIEGROEP NAAR ZIEKTEBEELD CUMULATIEF ALLE PEILSTATIONS GESTANDAARDISEERD

04.07.2000

ALLE PEILSTATIONS EXCL.28 JAAR: 1999 WEEK: 1 t/m 52

PROVINCIE-GROEP	POPULATIE			GASTRO-ENTERITIS			PROSTAATLIJDEN			KINK-HOEST
				GASTRO-ENTERITIS			RECTAAL TOUCHER	PSA	VERWIJ-ZING	KINK-HOEST
	M	V	T	M	V	T	M	M	M	M+V
GR+FR+DR	11952	12276	24229	26	22	24	46	42	3	3
OV+GLD+FLE	16437	16462	32900	111	109	110	102	111	18	5
UTR+NH+ZH	19680	22104	41784	67	84	76	124	103	14	11
ZLD+NB+LIM	15387	15509	30895	53	66	59	99	62	5	17
TOTAAL	63456	66351	129807	67	74	71	98	84	11	10

CONTINUE MORBIDITEITSREGISTRATIE PEILSTATIONS

BLAD 1

STEDELIJKHEIDSGRAAD NAAR ZIEKTEBEELD CUMULATIEF ALLE PEILSTATIONS GESTANDAARDISEERD

04.07.2000

ALLE PEILSTATIONS EXCL.28 JAAR: 1999 WEEK: 1 t/m 52

STEDELIJK-HEID	POPULATIE			"INFLU-ENZA"	HULPMIDDEL			HONDENBETEN			STERILISATIE		
				"INFLU-ENZA"	OP LI-CHAAM	ADL-FUCTIE	NOODZA-KELIJK	HONDENBETEN			STERILISATIE		
	M	V	T	M+V	M+V	M+V	M+V	M	V	T	M	V	T
5	9482	9400	18883	222	127	39	42	21	21	21	32	13	22
4-3-2	46111	47898	94009	247	107	35	32	11	12	12	33	16	24
1	7862	9053	16916	328	92	42	25	9	4	7	24	29	27
TOTAAL	63456	66351	129807	254	108	36	32	12	12	12	32	17	24

CONTINUE MORBIDITEITSREGISTRATIE PEILSTATIONS

BLAD 2

STEDELIJKHEIDSGRAAD NAAR ZIEKTEBEELD CUMULATIEF ALLE PEILSTATIONS GESTANDAARDISEERD

04.07.2000

ALLE PEILSTATIONS EXCL.28 JAAR: 1999 WEEK: 1 t/m 52

STEDELIJK-HEID	POPULATIE			HERPES ZOSTER			SUICIDE (POGING)	MAMMOGRAFIE		FYSIEK GEWELD			URETHRI-TIS	CAIDS
				HERPES ZOSTER			SUICIDE (POGING)	1-1-1998	HERHA-LING	FYSIEK GEWELD			URETHRI-TIS	CAIDS
	M	V	T	M	V	T	M+V	V	V	M	V	T	M	M+V
5	9482	9400	18883	19	36	28	5	93	38	3	4	4	5	12
4-3-2	46111	47898	94009	29	36	32	4	97	37	8	11	9	20	15
1	7862	9053	16916	31	46	39	8	115	25	9	17	13	39	33
TOTAAL	63456	66351	129807	27	37	32	5	99	36	7	11	9	20	17

CONTINUE MORBIDITEITSREGISTRATIE PEILSTATIONS

BLAD 3

STEDELIJKHEIDSGRAAD NAAR ZIEKTEBEELD CUMULATIEF ALLE PEILSTATIONS GESTANDAARDISEERD

04.07.2000

ALLE PEILSTATIONS EXCL.28 JAAR: 1999 WEEK: 1 t/m 52

STEDELIJK-HEID	POPULATIE			GASTRO-ENTERITIS			PROSTAATLIJDEN			KINK-HOEST
				GASTRO-ENTERITIS			RECTAAL TOUCHER	PSA	VERWIJ-ZING	KINK-HOEST
	M	V	T	M	V	T	M	M	M	M+V
5	9482	9400	18883	52	76	64	84	151	15	5
4-3-2	46111	47898	94009	65	66	66	91	63	9	11
1	7862	9053	16916	95	117	107	153	123	17	7
TOTAAL	63456	66351	129807	67	74	71	98	84	11	10

FOOTNOTES

1. Dulk C.J. den, Stadt H. van de, Vliegen J.M. Een nieuwe maatstaf voor stedelijkheid: de omgevingsadressendichtheid. Mnd. stat. bevolk, (CBS) 92/7.

2. Beroepen Extramurale Gezondheidszorg. Per 1 Januari 1999. NIVEL,Utrecht.

3. The tables indicated only by figures are text tables.

4. 1-1-1999, Central Statistical Office. Persons who are entered in the Central Register of Vital Statistics (CPR) have been left out of consideration.

5. Practice census 1997.

6. In these tables and the tables in the text derived from them frequencies are given in all cases per 10 000 men, women or inhabitants, unless stated otherwise.

7. This must satisfy the following criteria (Pel, 1965):
   a. An acute beginning, i.e. at most a prodromal stage of three to four days (including pre-existent infection of the respiratory organs at a non-pathogenic level);
   b. The infection must be accompanied by a rise in rectal temperature to at least 38°;
   c. At least one of the following symptoms must be present: cough, coryza, sore throat, frontal headache, retrosternal pain, myalgia.
   Pel, J.Z.S. (1965) Proefonderzoek naar de frequentie en de aetiologie van griepachtige ziekten in de winter 1963-1964. (Huisarts en Wetenschap 8, 321).

8. Onder incidentie wordt hier en elders in de tekst verstaan de relatieve frequentie per 10 000 inwoners (c.q. mannen en vrouwen).

9. De Koning H.J., Van Ineveld B.M. Van Ootmarsum G.J. De kosten en effecten van bevolkingsonderzoek naar borstkanker. Rotterdam: Instituut Maatschappelijke Gezondheidszorg, 1990.

10. The calculations made in this chapter have been performed by Dr E. Ketting, Zeist.

11. Douglas Fleming, K.W. Cross, Estimating the Population at risk by indicator Disease in Comparison and Harmonisation of Denominator Data for Primary Health Care Research in Countries of the European Community. Ed M. Schlaud, 1999, Amsterdam, blz.. 10-12.

12. Amsterdam Sentinel Station Project, Annual Report, 1990. Municipal Medical and Health Service, Amsterdam, p. 10-12.

13. Kerssens, J.J.,L. Peters. Angst voor AIDS. Hulpvragen bij de huisarts in de periode 1988 tot en met 1998. Utrecht, NIVEL, 1999.

14. Römkens Renée: Onder ons gezegd en gezwegen. Geweld tegen vrouwen in man-vrouw relaties. Rijswijk, 1989.

15. Rijksinstituut voor Volksgezondheid en Milieuhygiene Volksgezondheid Toekomst Verkenning. SDU Ruwaard, D., Kramers, P.G.M. Den Haag. Sdu Uitgeverij, 1993: 42-47.

16. Melker, H.E. de, M.A. Conyn-van Spaendonck, J.F.P. Schellekens Pertussis surveillance 1989-1995, RIVM, 1996.

17. Diekstra, R.F.W., en M. van Egmond. Suicide and attempted suicide in general practice. In The Dutch Sentinel Practice Network; relevance for public health policy, blz. 202. Nivel, Utrecht 1989.

18. A euthanasia declaration is a written request for euthanasia on certain conditions.

19. Bartelds A.I.M. Request for application of euthanasia. In: Bartelds A.I.M. Fracheboud J, van der Zee J. (eds). The Dutch Sentinel Practice Networks; relevance for public health policy. Utrecht, NIVEL, 1989.

20. Van der Maas P.J., J.J.M. van Delden, L. Pijnenborg, C.W.N. Looman. Euthanasia and other medical decisions concerning the end of life. The Lancet 1991; 338: 669-74

21. Pijnenborg L., J.J.M. van Delden, J.W.P.F. Kardaun, J.J. Glerum, P.J. van der Maas. Nation-wide study of decisions concerning the end of life practice in the Netherlands. BMJ 1994; 309: 1209-9.

22. Van der Wal G., R.L.M. Dillmann. Euthanasia in the Netherlands. BMJ 1994; 308: 1346-9.

23. Van der Maas Paul J., Gerrit van der Wal, e.a. Euthanasia, physician-assisted suicide, and other medical practices involving the end of life in the Netherlands, 1990-1995. Special report from the Netherlands, Volume 335, number 22, 1996.

24. Van der Wal Gerrit, Paul J. van der Maas, e.a., Evaluation of the notification procedure for physician-assisted death in the Netherlands. The New England Journal of Medicine, 1996, 1706.

Explanatory notes pertaining to:

Bijlage 1	
Bijlage	- Appendix 1
Continue morbiditeits registratie,	- Continuous morbidity registration,
peilstations	- sentinel stations
Deelnemende artsen	- Participating general practitioners
Naam	- Name
Plaats	- Residence
Provincie	- Province
Comb.-praktijk	- Group practice
Apotheek-houdend	- With dispensary
Bijlage 2	
Bijlage	- Appendix 2
Weekstaat t.b.v. centrale	- Weekly return for central
registratie	registration
Continue morbiditeits registratie,	- Continuous morbidity registration,
peilstations	- sentinel stations
Proj. no.	- Project number
Verslagjaar	- Year under review
Code peilstations	- Code number sentinel stations
Week no.	- Number of the week
Rapport. dagen	- Number of days over which reporting took place
Regel no.	- Line number
Leeftijdsgroep	- Age group
Influenza (-achtig ziektebeeld)	- Influenza (-like illness)
Hulpmiddel	- Medical aids
-op het lichaam gedragen	- worn on the body
- ter bevordering ADL-functie	- in support of regular daily activities
- noodzakelijk voor de medische behandeling	- necessary for medical treatment
hondenbeten	- Dog bites
Herpes zoster	- Herpes zoster
Sterilisatie verricht	- Sterilization performed
Suïcide(poging)	- (Attempted) suicide
(Poli) klinische mammografie	- (clinical) mammography
na 1-1-1998 voor eerste maal	- Taken for the first time after 1-1-1998
herhalingsonderzoek	- Repeat examination
Urethritis bij man	- Urethritis of the man
C.A.I.D.S.	- Concern about AIDS
Fysiek geweld	- Physical violence
Gastro-enteritis	- Gastro-enteritis
Prostaatlijden	- Prostate trouble
rectaal toucher	rectal touch
p.s.a.	P.S.A.

verwijzing verdenking prostaatca
kinkhoest

Weeknummer
Opgemaakt d.d.
Aantal dagen gerapporteerd
(zie voetnoot[1])
Zie ommezijde voor voetnoot

1. Door vakantie, ziekte en andere oorzaken zal deze rapportage zich echter ook over minder dan 5 dagen kunnen uitstrekken. Het wordt van belang geacht om, zo mogelijk, ook tijdens het weekeinde waargenomen patiënten te rapporteren. (M.u.v. influenzapatiënten.)
2. Betreft uitsluitend nieuwe patiënten, ook telefonisch consult melden
3. Op het lichaam gedragen: b.v. Polsspalk, pruik, elastische kousen incontinentiemateriaal, orthopedisch schoeisel, visueel hulpmiddel, gehoor hulpmiddel
4. Ter bevordering van ADL-functie: b.v. loophulpmiddel, blindentaststok, aangepast meubilair, hoog-laag bed, serveerwagen, TV-loup, signalering(alarm), rolstoel
5. Noodzakelijk voor de medische behandeling: b.v. dieetpreparaat, injectiespuiten, infuuspomp, apparatuur positieve uitademingsdruk, hulpmiddelen diabetes
6. Bij hondenbeten s.v.p. vragenlijst aan patient meegeven
7. Indien het een patient(e) betreft uit een van de leeftijdgroepen, waarvan het vak gerasterd is, dus jonger dan 20 jaar en ouder dan 49 jaar, tevens exacte leeftijd hierachter vermelden.
   Leeftijd:.....
8. S.v.p. apart formulier invullen

referral to urologist
- whooping cough

- Number of the week
- Completed on
- Number of days over which reporting took place
- (See footnote number[1])
- For footnotes see reverse

1. As a result of vacation, sickness and other causes this reporting may extend over fewer than 5 days. It is considered to be of importance to report, if possible, patients observed during the weekend as well. (Influenza patients excluded.)
2. Relates solely to new patients. Report telephone calls as well.
3. Medical aids worn the body (prostheses, wigs, support stockings, shoe accessories, hearing aids and any other care articles)
4. Medical aids in support of regular daily activities (rollaters and other walking equipment, adapted furniture etc.)
5. Medical aids required for medical treatment/ care (syringes, portable external infusion pump, nutritional preparations, diabetes aids, exhalation equipment etc.)
6. In case of dog bites please hand out the questionnaire to the patient.
7. If a patient is concerned in one of the age groups whose box is filled in, younger than 20 years and older than 49 years, also give
   Age:.....
8. Please complete a separate form

en bij de weekstaat voegen.	and attach to the weekly return.
9. S.v.p. apart formulier invullen en bij de weekstaat voegen.	9. Please complete a separate form and attach to the weekly return.
10. S.v.p. apart formulier invullen en bij de weekstaat voegen.	10. Please complete a separate form and attach to the weekly return.
11. S.v.p. faeceskoker en enquêteformulier aan patiënt uitreiken	11. Please hand out questionnaire and faeces transport material to the patients

Tables (p 123 - p 128)

Continue morbiditeits registratie peilstations	- Continuous morbidity registration sentinel stations
Kwartaal	- Quarter
Leeftijdsgroep	- Age group
Influenza (-achtig ziektebeeld)	- Influenza (-like illness)
Hulpmiddel	- Medical aids
op lichaam gedragen	- worn on the body
ter bevordering ADL-functie	- in support of regular daily activities
noodzakelijk voor medische behandeling	- necessary for medial treatment
Hondenbeten	- Dog bites
Herpes zoster	- Herpes zoster
Sterilisatie verricht	- Sterilization performed
Suïcide(poging)	- (Attempted) suicide
(poli) klinische mammografie	- (Clinical) mammography
na 1-1-1998 voor de eerste maal	- Taken for the first time after 1-1-1998
Herhalingsonderzoek	- Repeat examination
Urethritis bij man	- Urethritis of the man
C.A.I.D.S.	- Concern about AIDS
Fysiek geweld	- Physical violence
Gastro-enteritis	- Gastro-enteritis
Prostaatlijden	- Prostate trouble
rectaal toucher	rectal touch
p.s.a.	P.S.A.
verwijzing verdenking prostaatca	referral to urologist
Kinkhoest	- Whooping cough
Provinciegroepen	- Province group
Gr + Fr + Dr	Groningen, Friesland, Drenthe
Ov + Gld + Fl	- Overijssel, Gelderland, Flevoland
Utr + NH + ZH	- Utrecht, North Holland, South Holland
Zld + NB + Lim	- Zeeland, North Brabant, Limburg

Stedelijkheidsgraad	- Degree of urbanization
5	- Rural municipalities
4-3-2	- Municipalities with urban characteristics and urbanized municipalities
1	- Municipalities with a population of 100 000 or more

Voetnoot

N.B. Als gevolg van het afronden bij het berekenen van de relatieve frequenties kunnen kleine verschillen in de totalen zijn ontstaan

- Footnote

N.B. As a result of rounding off when calculating relative frequencies, small differences may have occurred in the totals