continuous morbidity registration sentinel stations the netherlands

1995

NIVEL
nederlands instituut voor onderzoek van de gezondheidszorg
drieharingstraat 6
postbus 1568 3500 bn utrecht
tel. 030 2319946 fax 030 2319290

netherlands institute of primary health care
P.O. Box 1568 3500 BN Utrecht The \netherlands
Telephone ..-3130 2 319 946 Fax ..-3130 2 319 290

from 1st June 1997:
Telephone ..-3130 2 729 700 Fax ..-3130 2 729 729

Published by : the Foundation of the Netherlands Institute of Primary Health Care (Nivel)
Ministry of Public Health, Welfare and Sport and the Health Care Inspectorate

Cover : After a design by A. Ruinaard, at the time working for the Ministry of Public Health, Welfare and Sport (adapted to the Nivel styling by M. Cornelius).

Data collection : E.E. Colet-van Woezik
M. Heshusius-van Valen
C.M. Felperlaan

Typing and Lay-out : M. Heshusius-van Valen

Printing : Bookbindery Post

Secretariat : P.O. Box 1568
3500 BN Utrecht, The Netherlands

Author : A.I.M. Bartelds

Translation : T.S. Preston

ISBN : ISBN 90-6905-319-5
SISO 601.8 UDC 314.4(492)
Trefw.: The Netherlands, influenza surveillance, screening for cervical, sterilization man of woman, p.i.d./urethritis, (attempted) suicide, concern about AIDS, requests for euthanasia, eating disorders

Publication date : April 1997

TABLE OF CONTENTS

FOREWORD

The concern about AIDS among the Dutch population is decreasing. In 1995 for the first time fewer consultations about AIDS were reported by the spotter physicians. From the start of this registration in 1988 a higher number of consultations had been reported every ear up to then.
The nature of Continuous Morbidity Registration unfortunately does not permit of investigating the reasons for this. Further research
will have to investigate whether the publicity campaigns have now found the right tone and content or whether now, fifteen years after the first alarming reports on this infection, real insight has meanwhile grown into the possibility of its spread in the Netherlands otherwise than among the high-risk groups, or whether attention to AIDS is simply lessening.
Incidentally, the registration of this topic in 1996 and following years will have to show whether the decrease found in 1996 in concern about AIDS is permanent.

The number of requests for euthanasia has now been practically the same for several years. Our conclusion from these data is therefore that the number of requests for euthanasia has reached a natural ceiling. There is little reason for fear of a sudden increase.

The influenza virus remains unpredictable: in 1995, just as in 1993, two waves of influenza were determined, in the first and the fourth quarter of 1995. When following the comings and goings of the influenza virus it is, however, more sensible to think in seasons: from October to March.
Other key figures (absence through illness and costs of health care) are calculated per calendar year. The incalculable influenza virus thus cause problems in this respect too.

In the course of 1997 the figures for 1996 are expected to give part-answers to questions that have arisen. New questions will also arise.

Prof. dr. J. van der Zee
Chairman of the Sentinel Stations 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. 6-10).
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. 131).
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. 16).
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, three conditions must be met:

1. a description of the importance of the subject is obligatory;
2. it must be possible to formulate strict and clear criteria with respect to the disease or occurrence;
3. application of these criteria may not be too time-consuming and it has to suit the practice of the general practitioner.

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. 132 and 133) 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.

The Eurosentinel project ended in June 1991.[1] However, contacts have been maintained between the project leaders of the participating national networks that led to continuation of the joint activities in the registration of influenza(-like illnesses) and Aids-related consultations of the GP in 1995.

At the request of the Management Group of the European Early Warning and Surveillance Scheme for Influenza, Nivel submitted to DG V of the European Commission at the beginning of 1996 a simplified versum of the project proposal from 1994 for continuation and expansion of this international cooperation.

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 of Primary Health Care (Chairman);
3. one representative of the Netherlands Institute of Primary Health Care;
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 1995 the committee functioned in the following composition:

	F.K.A. Fokkema, M.D.[5]
	Dr. R.R.R. Huijsman-Rubingh[4]
	W. Reijmerink[1](until 27-09-1995)
	H.O. Sigling, M.D.[7]
	W.A. van Veen, M.D.[1]
	J. van der Velden, epidemiologist[3]
	A.A.M. Vloemans, M.D,physician/epidemiologist[1](from 27-09-1995)
	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 E. Colet-van Woezik(until 01-09-1995)
	Mrs M. Heshusius-van Valen

This committee met twice in 1995. It had three vacancies in that year.

MEETING OF SPOTTER CO-WORKERS 1995

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.

For 1995 a repetition of the incidental investigation into eating disorders from 1985-1989 is planned.[2]
Dr. H.W. Hoek, psychiatrist/epidemiologist and chairman of the Steering Group Eating Disorders the Netherlands, explained that from both a scientific and a policy point of view great value was attached to a repetition of the investigation from 1985-1989 in 1995. A possible trend in the number of patients with an eating disturbance could be revealed.
Scientists are discussing the causes of the increase in the number of patients registered with an eating disturbance. Policy staff are disturbed about the long waiting lists, at present one year, for patients with an eating disturbance. The steering group for eating disorders instituted by the Ministry of Health, Welfare and Sport, which is to work on introduction of the necessary care for these patients, has a great need of new data from the Sentinel Stations.

Dr. Hoek described the data that are requested on the patients to be reported. And he discussed the characteristics of the patients suffering from an eating disturbance.

'Pain fetters a sufferer; chronic pain does that almost daily.'
Prof. Dr. J.M. Bensing, director of Nivel and professor in the Clinical Psychology and Health Psychology Department of Utrecht University, introduced the new topic 'chronic benign pain disturbance' to the spotter physicians.
This research is intended to determine the incidence and prevalence of chronic benign pain disturbances and to describe the medical consumption and functional limitations as a result of these complaints about pain. The research is being performed by Nivel and the Clinical Psychology and Health Psychology Department of Utrecht University. The cooperation of the spotter physicians in this is requested.

With the physicians Mrs Bensing discussed the patients possibly to be included in this research; a lively discussion between her and the spotter physicians ensued about this. It was promised that the researchers, in cooperation with some experienced spotter physicians, would try to solve the problems regarding this research mentioned in the discussion before the actual start of registration of this topic in the second half of 1995.

On behalf of the Liver Epidemiology Working Party of the Teaching Hospital of Groningen University drs. G.M. van Dam discussed the second new topic on the 1995 weekly return: liver, gall bladder and pancreas disease.
The reason for this topic is the finding that data now available are often based on select patient populations and relatively unreliable mortality statistics. Screening of liver, biliary duct and pancreas disorders is necessary both for practising GPs and specialists and for the policy-makers (from the decision-making and implementation with respect to prevention and information to estimating the need for liver transplantations and future therapeutic interventions).
Prior to major and expensive screening a registration of the occurrence of liver, biliary duct and pancreas pathology in general practice is desirable.

Dr. J.F.P. Schellekens, a microbiologist with the National Institute for Public Health and the Environment, explained the occurrence of whooping cough in the Netherlands. Despite a high degree of vaccination the pattern of occurrence for 1989-1994 shows that whooping cough occurs endemically with (in accordance with the literature) epidemic outbreaks every four years. On the basis of data collected from various surveillance sources it proves that whooping cough can occur among both children and adults, among both vaccinated and unvaccinated persons.
Indications exist that in vaccinated populations adults play an important part in the infection of infants not yet or insufficiently protected.
Upon the availability of a PCR test for demonstrating Bordettella (para) pertussis, spotter physicians could certainly be a major source of information on the occurrence of this bacterium.

At the end of the meeting Dr. J.C. de Jong, a virologist with the National Institute of Public Health and the Environment, discussed the state of affairs concerning virological surveillance of the influenza-like illnesses. The 1994-1995 season displayed up to then a quiet course insofar as the influenza virus was concerned. However, an unusual activity of the RS virus had been established in above all the diagnostic circuit.

DISTRIBUTION OF THE SPOTTER PHYSICIANS OVER THE NETHERLANDS

Figure 1
SENTINEL STATIONS
Continuous Morbidity Registration
1995

The number of sentinel stations in 1995 was 44. The number of general practitioners in the sentinel station practices is 65.

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);[3]
- 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. 129-130) gives a survey of the general practitioners who took part in the sentinel station project during 1995. In 12 sentinel stations there is cooperation between two or more general practitioners, viz 6 times 2, 3 times between 3 practitioners, once between 4 practitioners and once between 6 practitioners. In January 1996 the percentage of general practitioners cooperating throughout the Netherlands was 51.5, and among the spotter physicians 47.6. There are 7 dispensing spotter physicians, 3 in degree of urbanization 1 and 4 in degree of urbanization 2, that is 10.7% of the total number of spotter physicians. For the Netherlands as a whole this percentage is 9.7[4].

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 1986-1995. 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 (see 1981 report, p. 13).

Table 1: Distribution of the spotter physicians (general practitioners) and sentinel stations per province group in the years 1986-1995[5]

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 GPs	sentinel stations	number of GPs	sentinel stations	number of GPs	sentinel stations	number of GPs	sentinel stations
1986	10	6	10	8	26	21	14	10
1987	10	6	9	7	28	21	14	10
1988	10	6	10	8	28	21	14	10
1989	10	6	10	8	28	21	13	10
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

Table 2: Distribution of the spotter physicians (general practitioners) and sentinel stations per degree of urbanization in the years 1986-1995

degree of urbanization	1 rural municipalities		2 urbanized rural municipalities together with municipalities with urban characteristics		3 municipalities with a population of 100 000 or more		Netherlands	
	number of GPs	sentinel stations	number of GPs	sentinel stations	number of GPs	sentinel stations	number of GPs	sentinel stations
1986	10	7	36	25	14	13	60	45
1987	10	7	37	25	14	13	61	44
1988	9	6	39	26	14	13	62	45
1989	9	6	38	26	14	13	61	45
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

THE PRACTICE POPULATIONS

In 1995 a census of the practice populations took place; these details have been used for processing with effect from 1-1-1996. In 1997 a new census wil take 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 1994 by 82 569 inhabitants.

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[6]	number of patients of sentinel stations[7] (with percentages)	
province group		A	1 622 438	23 845	(1.5%)
		B	3 177 446	34 671	(1.1%)
		C	6 852 135	62 662	(0.9%)
		D	3 772 103	35 017	(0.9%)
degree of		1	2 774 653	21 032	(0.7%)
urbanization		2	9 725 047	102 716	(1.0%)
		3	2 924 422	32 447	(1.1%)
sex	men		7 627 482	77 044	(1.0%)
	woman		7 796 640	79 151	(1.0%)
total			15 424 122	156 195	(1.0%)

Province group A (the northern provinces) is relatively somewhat over 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.[3] The rearrangement of the sentinel stations in accordance with this new criterion has resulted in an under-representation of the population in the rural municipalities (degree of urbanization 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	1.4	1.3	0.9	0.9	0.8	0.8	0.9	0.8	0.6	0.5	0.9	0.9	1.1	1.2	0.9	0.9
5- 9	1.4	1.4	1.0	1.0	0.9	0.9	0.9	0.9	0.6	0.6	1.0	1.0	1.3	1.2	1.0	1.0
10-14	1.5	1.6	1.0	1.0	0.9	0.9	0.9	0.9	0.7	0.7	1.0	1.1	1.2	1.3	1.0	1.0
15-19	1.4	1.5	1.0	1.0	1.0	1.0	0.9	1.0	0.7	0.7	1.1	1.1	1.0	1.1	1.0	1.0
20-24	1.6	1.7	1.3	1.4	1.0	1.0	1.0	1.1	1.0	1.0	1.2	1.2	1.0	1.0	1.1	1.2
25-29	1.6	1.8	1.3	1.2	0.9	0.9	1.0	1.0	0.9	0.8	1.1	1.1	1.0	1.1	1.0	1.1
30-34	1.5	1.6	1.2	1.1	0.9	0.9	0.9	0.9	0.7	0.7	1.1	1.1	1.1	1.2	1.0	1.0
35-39	1.4	1.5	1.0	1.0	0.9	0.9	1.0	1.0	0.7	0.6	1.0	1.1	1.2	1.2	1.0	1.0
40-44	1.5	1.6	1.0	1.0	1.0	1.0	0.9	0.9	0.7	0.7	1.0	1.1	1.1	1.2	1.0	1.0
45-49	1.4	1.4	1.0	1.0	0.9	0.9	0.9	1.0	0.7	0.7	1.0	1.1	1.0	1.1	1.0	1.0
50-54	1.3	1.4	1.0	1.1	0.9	0.9	0.9	0.9	0.7	0.7	1.0	1.0	1.0	1.0	0.9	1.0
55-59	1.5	1.3	1.1	1.1	0.9	0.9	0.9	0.9	0.8	0.8	1.0	1.0	1.1	1.1	1.0	1.0
60-64	1.2	1.3	1.2	1.2	1.0	1.0	0.9	0.9	0.8	0.8	1.0	1.0	1.1	1.2	1.0	1.0
65-69	1.3	1.3	1.2	1.1	1.0	1.0	0.9	0.9	0.9	0.8	1.0	1.0	1.2	1.1	1.0	1.0
70-74	1.3	1.2	1.2	1.0	0.9	0.9	0.9	0.8	0.9	0.9	1.0	1.0	1.1	1.0	1.0	1.0
75-79	1.3	1.3	1.3	1.1	0.9	0.9	0.9	0.9	1.0	0.9	1.1	1.0	1.0	1.0	1.1	1.0
80-84	1.3	1.3	1.4	1.0	0.9	0.9	0.9	1.0	1.0	0.9	1.1	1.0	1.0	0.9	1.1	1.0
≥ 85	1.3	1.4	1.7	1.1	1.0	0.9	1.0	0.9	1.4	1.1	1.2	1.0	1.0	0.9	1.2	1.0
total	1.4	1.5	1.1	1.1	0.9	0.9	0.9	0.9	0.7	0.8	1.1	1.1	1.1	1.1	1.0	1.0

With regard to the age groups in previous years a minor shift has occurred: in the youngest age groups, in comparison with the previous censuses there are more subgroups with a percentage less than one; in the oldest age groups, on the other hand, such subgroups are fewer. This points to a low degree of aging of the sentinel station population; the population as it were grows along with the spotter physicians who are faithful to the project.

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 1995 it was 11 440 (52 weeks x 5 days x 44 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
1986	11 700	10 284	87.9%
1987	11 660	10 035	86.1%
1988	11 700	10 307	88.1%
1989	11 700	10 380	88.7%
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%

The percentage of reporting days is somewhat lower in 1995 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 urbanized rural municipalities, together with municipalities with urban characteristics, are with 85.4% the lowest of the degree of urbanization, and the northern provinces with 92.5% the highest of the province group.

Province group	Per degree of urbanization
A 92.5%	1 88.8%
B 85.5%	2 85.4%
C 84.5%	3 86.4%
D 87.5%	

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 30 (maximum 44 x 5= 220).

Figure 2: The number of days registered in 1995 per week.

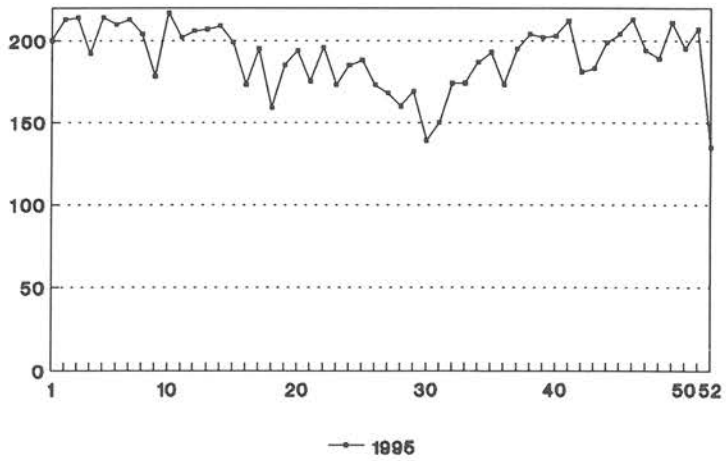


Table 5 presents the frequency distribution of the number of days not reported per sentinel station. The average number of non-reporting days per sentinel station in 1995 is 35, somewhat higher than in 1994.
A breakdown into single and group practices shows a clear difference here, viz 43 and 12 days 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									
	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
≤ 0	0	0	1	1	2	1	2	3	4	3
1- 9	7	4	7	6	5	7	7	7	2	3
10-19	4	7	2	6	5	3	4	1	5	3
20-29	7	1	5	5	6	11	5	6	2	6
30-39	10	5	15	15	11	10	13	13	13	11
40-49	13	16	13	9	10	9	9	11	12	12
50-59	2	10	2	2	2	1	1	3	5	3
60-69	1	1	0	1	1	0	1	-	2	-
70-79	0	0	0	0	1	0	-	-	-	1
80-89	0	0	0	0	1	0	-	-	-	1
90-99	0	0	0	0	0	0	-	-	-	-
≥ 100	1	0	0	0	0	1	1	1	-	1
total number of sentinel stations	45	44	45	45	44	43	43	45	45	44
average	31	37	27	29	32	30	29	32	32	35
median	34.5	43	34	32	33	29	33	34	37	37

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 14% of the sentinel stations in 1995. This is a somewhat lower percentage than in 1994. Illness of the spotter physician is the reason for not reporting for a length of time.

THE WEEKLY RETURN (Appendix 2, p. 131)

The questions on the weekly return for 1995 were composed as follows; it is stated in brackets in which year the topics were added to the return.

1. New cases of influenza(-like illness) (1970);
2. Cervical smear (1976);
3. Liver, gall bladder and pancreas disease (1995);
4. Chronic benign pain disturbance (1995);
5. Sterilization of the man performed (1972);
6. Sterilization of the woman performed (1974);
7. Oestrogens prescribed (1994);
8. (Attempted) suicide (1979);
9. Out-patient and clinical mammography (1988);
10. P.I.D. (1993);
11. Urethritis of the man (1992);
12. Concern about AIDS (1988);

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. 132-133) together with the years of registration.

PROCESSING OF THE DATA ON THE WEEKLY RETURN

This report contains the results of the weekly return for 1995. The data were processed by the Computer Centre of the Ministry of Public Health, Welfare and Sport as usual.

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 135) the age structure as on 1 January 1995 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 average population present in the quarter.
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 136-139).

1. Cumulative, all sentinel stations standardized. Year 1995, week 01-52, p. 1-2.[8]
2. Province group standardized by syndrome. Year 1995, week 01-52, p.1-2.[8]
3. Degree of urbanization standardized by syndrome. Year 1995, week 01-52, p. 1-2.[8]

INFLUENZA(-like illness)

Influenza[9] 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.

Influenza 1993-1994 and 1994-1995

1993-1994 season

Figures 3.1-3.3 give the number of new cases of influenza per 10 000 inhabitants per week for the Netherlands and by province group and degree of urbanization for the 1994-1995 season.[10] Figures 4.1-4.3 give the number of new cases of influenza for the 1995-1996 season. The progress of influenza in the first weeks of 1995 was already discussed in the 1994 report.

Figure 3.1 Number of patients with influenza(-like illness) per week and per 10 000 inhabitants, for the Netherlands, 1994-1995

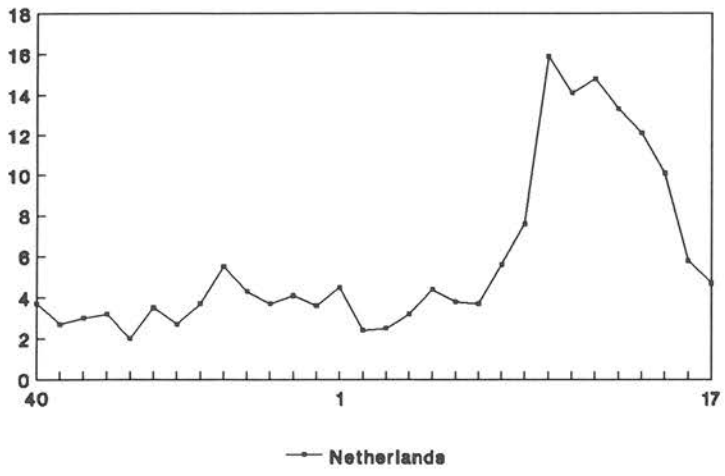


Figure 3.2 Number of patients with influenza(-like illness) per week and per 10 000 inhabitants, per degree of urbanization, 1994-1995

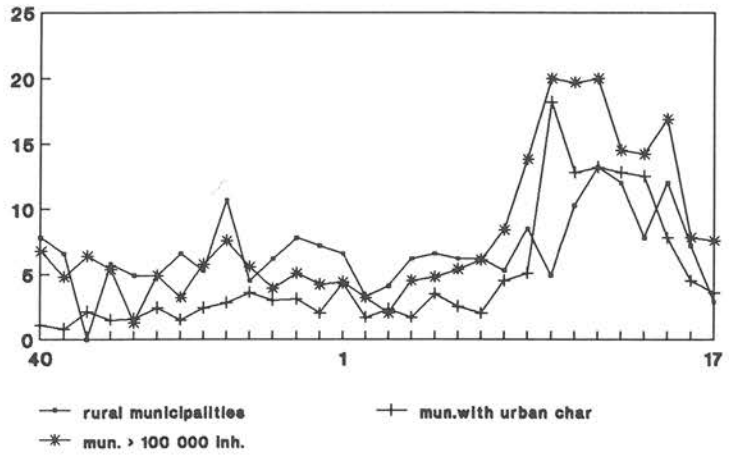
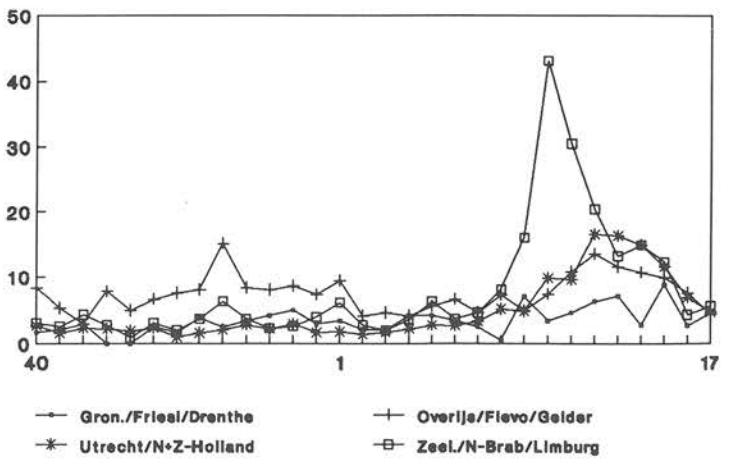


Figure 3.3 Number of patients with influenza(-like illness) per week and per 10 000 inhabitants, per province group, 1994-1995



1994-1995 season

Not until the end of February was there the first mention in the 1994-1995 influenza season of any rise in the index for influenza-like illnesses. Before that time there was only something to see in this index of the increased activity of the RS virus at the end of November and the beginning of December 1994.

In week 9 of 1995 the first sign of increased influenza activity was found in the south of the country: 16 per 10 000 inhabitants. The number rose in the following week to 43 per 10 000 inhabitants: the highest value reached.
There was a gradual spread across the western and eastern provinces. The north remained relatively free from influenza in the 1994-1995 season, the highest value reached being 7 per 10 000 in week 13. The highest national incidence was 16 per 10 000 in week 10.
In the cities with more than 100 000 inhabitants influenza activity was the highest (from week 10 to week 12 inclusive: 20 per 10 000).
The rural municipalities were affected to a less extent, which tallies with the regional data.

Virological surveillance NIVEL/RIVM

In the 1994-1995 season the population was confronted relatively late in the season with influenza: in week 2 of 1995 a spotter physician diagnosed the first influenza A(H_3N_2) virus in a 46-year-old man with clear influenza symptoms.
In the week thereafter more isolations followed, though above all isolated cases of the influenza B virus. From week 6, four weeks after the isolation of the first virus, more influenza-like illnesses were reported and the number of virus isolations increased, now also influenza A(H_3N_2). The increase in the number of virus isolations was found in the first instance in the population of the spotter stations; from week 9 the number of reported isolations in the diagnostic circuit increased.

A striking finding in the 1994-1995 season is that in the network of the sentinel stations above all influenza B viruses have been isolated (73%), whereas in the diagnostic circuit, in which the isolations often originate from patients who have been admitted to hospital, clearly more influenza A viruses are found (65%). This finding has been reported to the Lancet.

The influenza A(H_1N_1) virus was also isolated in the 1994/1995 season.

1995-1996 season

Figure 4.1 Number of inhabitants with influenza(-like illness) per week and per 10 000 inhabitants, for the Netherlands, 1995-1996 (up to and including week 13)

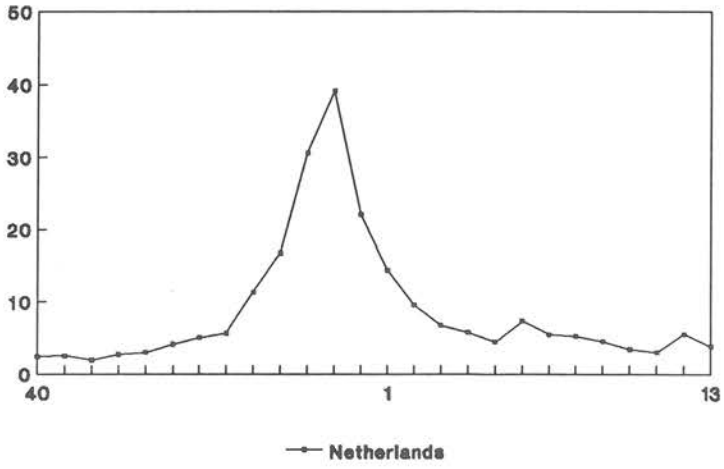


Figure 4.2 Number of inhabitants with influenza(-like illness) per week and per 10 000 inhabitants, per degree of urbanization, 1995-1996 (up to and including week 13)

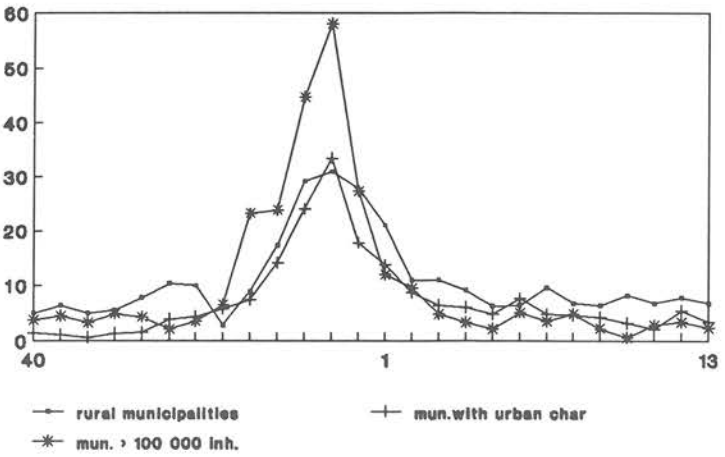
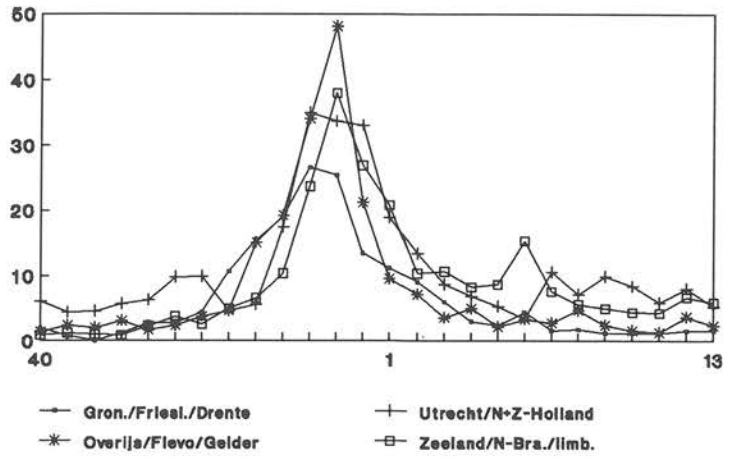


Figure 4.3 Number of inhabitants with influenza(-like illness) per week and per 10 000 inhabitants, per province group, 1995-1996 (up to and including week 13)



1995-1996 season

On 7 November 1995 the first influenza virus of this season was isolated from an aspirate taken from a two-year-old girl in the Sofia Kinderziekenhuis in Rotterdam. It was an influenza A(H_3N_2) virus.
In the same week 45 two influenza A viruses were also isolated from throat/nose swabs sent in by spotter physicians.

In the two following weeks virus isolations were reported, but the number of influenza-like illnesses reported by the spotter physicians remained at a level normal for the time of the year. In week 48 there was for the first time a clear increase in influenza activity. The highest incidence was measured in week 51: 39 reports per 10 000 patients.

The western provinces display the highest incidence of the province groups (48 per 10 000 inhabitants); in the cities the incidence, at 58 per 10 000 inhabitants, is higher than in the two other degrees of urbanization.

In week 3, eight weeks after the start of this influenza revival, the level again fell to below 10 per 10 000 inhabitants. However, a somewhat increased IAZ incidence continued to exist until in week 10 of 1996.

Virological surveillance NIVEL/RIVM

The viruses isolated in the 1995-1996 season are very largely of the influenza A(H_3N_2) type (82%). A considerably smaller number of influenza A(H_1N_1) viruses (12%) were isolated and even fewerinfluenza B viruses (6%).

Influenza from 1986-1996

Table 6: Number of patients with influenza(-like illness), per 10 000 inhabitants, 1986-1996

year	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
total per calendar year	630	365	399	410	225	348	244	484	107	315	
highest weekly incidence per "season"	26	9	44	54	24	40	27	54	16	39	

If we examine the epidemics of the past ten years, those of the 1986-1987, 1990-1991 and 1992-1993 seasons were the mildest in that period. In the 1987-1988 season one may not speak of an influenza epidemic at all. In the 1988-1989 season an "influenza wave" occurred for the first time for years at the end of the calendar year. In the 1989-1990 season there was again an "influenza wave" at the end of the calendar year. In the 1990-1991 season most activity was seen in the second half of the first quarter.

At the end of 1991 there was again influenza activity around Christmas and New Year. In the 1992-1993 season there was increased influenza activity in February and March 1993. In the autumn of 1993 there was again an epidemic going on at an unusually early time of the year. As a result the calendar year 1993 was concerned with two influenza epidemics. In 1994 no influenza prevailed; there was, however a slight revival at the end of February 1995.

At the end of 1995 there is the beginning of a second ware of influenza in 1995.

Age and sex distribution

During the period of registration, no difference has ever been found in the frequency of influenza between men and women, so that a division is not included in the weekly return for this category.

The age distribution shows as in previous years that the general practitioner is consulted most frequently on influenza-like illnesses for the age group under 5 years. In the other groups the numbers are nearly identical.

This topic is to be maintained on the weekly return.

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

JONG J.C. de, 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

In the 1995/96 season in The Netherlands the influenza season showed two peaks of influenza virus activity. The first and most important one was observed in December and January and was caused almost exclusively by an influenza A(H_3N_2) virus. The second peak occurred in February and March 1996 and was associated with isolations of only (sub)type A(H_1N_1) and B viruses. It was characterized by a very low incidence of influenza-like illnesses (ILI). It was detected by the 'epidemically' high percentage of influenza virus isolations from the clinical samples of patients who consulted their family doctor with respiratory complaints. Apparently, in general these doctors did not consider their syndromes as ILI.

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

The Netherlands institute of primary health care (NIVEL) is running a surveillance network of 46 sentinel general practice (GP) stations, spread over the country in proportion to the population density. The GP of this network sent nose/throat swabs from patients with respiratory illnesses to the RIVM.
In the season 1994/95 557 respiratory specimens were examined by virus isolation and PCR. In 189 (34%) of the samples a respiratory virus or bacterium was detected by either technique. Influenza B (9%) and rhinovirus (9%) were the predominant viruses followed by coronavirus OC43 (4%), influenza A virus (3%), RS virus (3%), and adenovirus (2%). In 8 (4%) of the positive samples two etiologic agents were detected. Seventry (37%) of the causative agents were only recognized by PCR. When comparing the results of the surveillance among patients in the GP network with those of the examinations of virus diagnostic laboratories, the main differences were the higher proportion of influenza virus isolations and the lower proportion of RS virus isolations in the GP systems. Among the isolated influenza viruses, type B prevailed in the GP system and A(H_3N_2) in the virus diagnostic laboratories.
From 68 PCR-positieve patients 72 follow-up samples vould be obtained, taken on an average 24 days after the first specimen. In only three patients the agent could still be

demonstrated in the follow-up sample; in two of these the agent was Chlamydia pneumoniae.

Conclusions:

The proportions of at least part of the viruses isolated from patients with respiratory complaints in a GP network differ considerably from those isolated in virus diagnostic laboratories, which are mainly hospital-based.

Surveillance of respiratory infections among patients of GP is therefore essential for the insight in the epidemiology of respiratory diseases.

On the average, illness from infection with influenza B-virus appears to be less severe compared to influenza A(H_3N_2) virus.

Application of the PCR-technique enhances considerably the rate of positive results of the examination of respiratory specimens. Important respiratory pathogens as coronavirus Mycoplasma pneumoniae, and Chlamydia even can only detected by PCR. The clinical relevance of the PCR-technique appears to be high for the tested respiratory viruses and for Mycoplasma pneumoniae.

The rhinovirus PCR and the virus culture technique should be improved, whereas the bacterial surveillance should be extended to important cultivable respiratory bacteria.

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.

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

Introduction

The Netherlands institute of Primary Health Care (NIVEL) is running a registration network of 46 sentinel general practices (GP), spread over the country in proportion to the population density (Figure 1). Since 1970 NIVEL has calculated weekly the incidence of influenza-like illness from the data from this network. In 1992/93 this system was supplemented by RIVM with virus isolation from these patients and in 1994/95 with the PCR for several viruses and bacteria. Compared with virological surveillance based on virus isolations from hospital-admitted patients the RIVM/NIVEL surveillance gives a better insight in the etiology of acute respiratory infections in the general population.

Materials and Methods

The GP of the NIVEL network sent nose/throat swabs from some of their patients with respiratory illness. During the period of week 40 of 1994 to week 19 of 1995 551 respiratory specimens were examined by virus isolation and PCR.

Results

In 195 (35%) of the samples a virus or bacterium was detected by either technique. Almost half of the agents were only recognized by PCR. Influenza B virus (9%) and rhinovirus (9%) were the predominant viruses, H_1N_1 (1) (3%), RS virus (3%), and adenovirus (2%) (Table 2 and Figure 2). In 9 (4%) of the positive samples two etiologic agents were detected. From 69 PCR-positive patients a second sample could be obtained, taken on

average 24 days after the first specimen. In only four (3x Chlamydia pneumonia) of these second samples could the agent still be demonstrated (Table 3).
When comparing the results of the surveillance among patients in GP with those of the data from virus diagnostic laboratories, the main differences were the higher proportion of influenza virus isolations and the lower proportion of RS virus isolation in the GP system. Among the isolated influenza viruses, type B prevailed in the GP system and type A(H_3N_2 in the diagnostic framework (Figure 3).

Conclusions

- The proportions of at least part of the virus species isolated from patients with respiratory complaints in a GP network differ considerably from those isolated in virus diagnostic laboratories, the samples of which are mainly derived from hospitalized patients.
- Illness from infections with influenza B virus appear to be less severe compared to influenza A(H_3N_2) virus.
- Application of the PCR technique enhances considerably the rate of positive results with respiratory specimens.
- The clinical relevances of the PCR technique appears to be high for most respiratory viruses.

SPRENGER, M.J.W., P.G.H. MULDER, W.E.P. BEGER and N. MASUREL.
Influenza: Relation of Mortality to Morbidity Parameters-Netherlands, 1970-1989.
International Journal of Epidemiology, 1991, vol. 20, no. 4, p. 1118-1124

The purpose of this study is to investigate the relationship between the number of influenza-like illness cases (ILI), registered weekly by the general practitioners (sentinel stations), and the monthly overall influenza mortality in people over 60 years of age, provided by the Dutch Bureau of Statistics during the period July 1970 to June 1989.
The quantitative impact of influenza morbidity is expressed by three summary parameters, calculated from the 52 (53) weekly ILI figures per season-year, (i) their sum (i.e. global extent of an epidemic), (i) their standard deviation, and (iii) their maximum (i.e. peak number of ILI during an epidemic). In the analysis influenza A subtype is also included. These four parameters are mutually compared with respect to their predictability for yearly total influenza mortality in the 19 season-years available.
In most cases, the standard deviation and the peak number of ILI are more powerful for prediction of mortality than the global extent of the epidemic.
The peak number of ILI is of special interest. It is particularly useful for estimating the effect on current influenza mortality during an ongoing epidemic. From the model it is possible to calculate a threshold (of week ILI) beyond which mortality increases proportionately more than the number of illness episodes.
By using the peak value of morbidity it is possible to calculate the minimal impact of epidemic mortality.
This study indicates that the weekly number of influenza-like illness cases has a certain prognostic value for the real impact of influenza. An electronic surveillance system could detect immediately the threshold above which influenza mortality increases more than proportionally. When this level is reached electronic bulletins could stress the importance of prophylactic measures or, especially for the high-risk patient, the use of amantadine to reduce excess mortality.

The benefits of such an electronic surveillance system are not restricted to the epidemic. We believe that such a system could improve the involvement of general practitioners and in this way improve the awareness of the consequences of influenza. This might result in greater vaccination coverage.

CERVICAL SMEAR

Taking of a cervical smear was placed on the weekly return for the first time in 1976. The initial aim was to obtain insight into the extent of this work outside the mass screening for cervical cancer.

The question is subdivided into the indication for taking a cervical smear, i.e. following complaints and/or symptoms, on 'preventive' grounds at the initiative of the spotter physician or the woman, and a separate column in the case of a repeat smear, irrespective of the indication for taking the previous smear. Three years has been adhered to as the period within which a second or following smear has to be reported as a repeat smear. For 1995 that therefore means that a smear is reported as a repeat smear when the spotter physician himself has already taken a smear from the woman in question after 1 January 1993. This period is identical with the then valid interval between two mass screenings.

This topic has acquired a somewhat changed objective, since in March 1982 the then Minister of Public Health and Environment announced the intention to amend the policy regarding mass screening for cervical cancer. On 25 August 1988 agreement was reached between the Association of Netherlands Health Insurance Funds and the professional organizations of general practitioners on reimbursement for the taking of cervical smears from patients covered by a health insurance fund (provisionally directed towards women of 35-54 years, and with a screening interval of three years). This made it possible to start the mass screening for cervical cancer throughout the Netherlands in 1989.
Enquiry among the spotter physicians revealed that mass screening for cervical cancer was in fact a reality in 1995 in all of the 44 sentinel stations. In 1988 mass screening was a fact in only 22 of the 45 sentinel stations.
In 1996 a number of changes in performance of the mass screening for cervical cancer are to be introduced: the target group is now women of 30-60 years and the screening interval is to become 5 years.

In Table 7 the total number of smears taken has been subdivided by indication for taking the smear, including the repeat smears.

Table 7: Number of smears taken by spotter physicians by indication for taking a smear, per 10 000 women, 1986-1995

	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
complaints and/or symptoms	65	59	76	72	55	73	72	70	60	59
"preventive"	398	345	369	521	577	537	523	485	474	467
repeat smear	170	211	246	237	273	239	233	225	268	267
total	633	615	691	830	905	849	828	780	802	793

The total number of smears (793 per 10 000 women) was somewhat lower in 1995 than in the previous year.

In 1989 the new-style mass screening started at many places in the country. In 1990 this programme developed further. When considering these tables, as remarked in the previous reports, one must make allowance for the fixed period of three years within which a smear counts as a repeat smear.
The total number of first smears made on preventive indication, i.e. on the initiative of both the GP and the woman, nearly doubled in the period 1983-1990, from 294 to 577 per 10 000 women (see Table 8). After 1990 the number of smears made on preventive indication decreased again, to 467 per 10 000 women. At the end of this chapter this remarkable fall is further considered.

The number of smears on account of complaints and/or symptoms has since 1980 been at a level of some 65 per 10 000 women. The years 1988-1989 and 1991-1993 displayed a higher level: over 70 per 10 000. In 1994-1995 the number of smears on account of complaints and/or symptoms was 60 per 10 000. As regards this category, the arrangement to register each smear taken from one and the same woman within a certain period as a repeat smear should be borne in mind. The actual number of smears taken on account of complaints and/or symptoms will therefore be higher.
The number of repeat smears increased in the eighties to 273 per 10 000 women in 1990. From 1991 onwards this number falls. In 1994-1995 a higher number of repeat smears was again taken: 268 per 10 000 women.
Since 1987 the subcategory repeat smear has also been subdivided into:

smears on account of complaints and/or symptoms, preventive on the initiative of the GP and preventive on the initiative of the woman. In 1987-1989 a practically constant number of approx. 60 repeat smears per 10 000 women were taken on account of complaints and/or symptoms. In 1990-1991 70 repeat smears per 10 000 women were taken on account of complaints and/or symptoms. In 1992-1995 this number was again some 60 per 10 000 women. The greater part of these repeat smears were taken among women in the 30-54 age group.

In Table 8 only the number of first smears per 10 000 is included, with a subdivision by indication for taking the smear and by province and degree of urbanization (see also Figs. 5 and 6). The table shows that that national fall after 1990 in the number of 'preventive' smears continued in 1995. In comparison with 1994 the number of smears has considerably increased in the northern provinces, to above the level of 1992-1993. A drop in the number occurs in the southern provinces. These fluctuations in the number of smears taken create the impression that the performance of the mass screening for cervical cancer does not seem to be proceeding uniformly throughout the country.

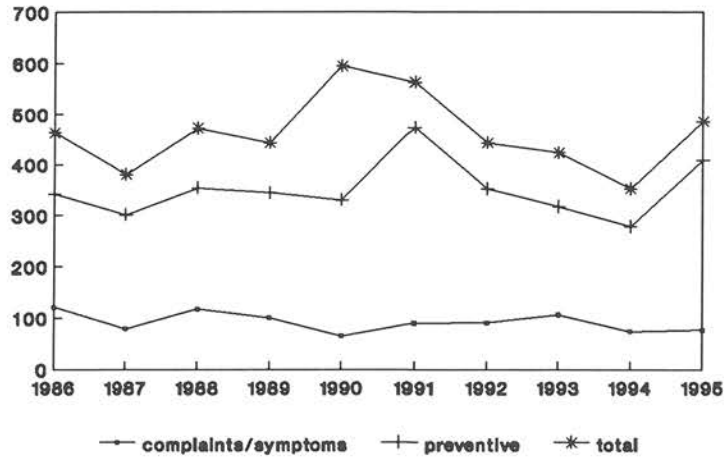
The fluctuations in the numbers of cervical smears taken in the various degrees of urbanization confirm this impression.

Table 8: Number of **"first"** cervical smears taken per province group and degree of urbanization, by indication for taking a smear and for the Netherlands, per 10 000 women, 1986-1995

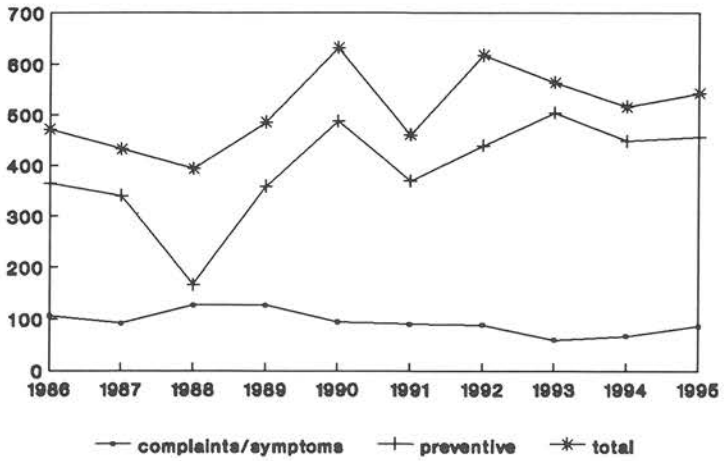
		province group				degree of urbanization			Nether-lands
		A	B	C	D	1	2	3	
complaints	1986	121	106	42	43	93	54	75	65
and/or	1987	79	92	46	48	79	49	69	59
symptoms	1988	117	127	56	51	118	58	96	76
	1989	100	127	54	48	102	57	90	72
	1990	65	95	43	41	66	52	56	55
	1991	90	91	57	79	72	64	102	73
	1992	91	89	65	59	42	68	93	72
	1993	106	60	60	73	45	71	81	70
	1994	74	68	51	57	47	58	71	60
	1995	77	87	47	42	59	58	64	59
"preventive"	1986	342	365	449	363	398	344	539	398
	1987	301	340	383	303	342	294	472	345
	1988	354	166	412	385	265	335	553	374
	1989	343	358	657	472	365	523	611	521
	1990	530	487	656	540	511	554	689	577
	1991	473	369	572	634	391	535	618	537
	1992	352	439	586	582	455	511	585	525
	1993	317	504	519	519	601	420	567	485
	1994	278	448	490	600	482	402	627	475
	1995	408	456	487	506	298	499	493	467
total	1986	463	471	491	406	491	398	614	463
	1987	380	432	429	351	421	343	541	404
	1988	471	393	468	436	383	393	649	450
	1989	443	485	711	520	467	580	701	593
	1990	595	632	699	581	577	606	745	632
	1991	563	460	629	713	463	599	720	610
	1992	443	618	651	641	487	579	678	597
	1993	423	564	579	592	646	491	648	555
	1994	352	516	541	657	529	460	698	535
	1995	485	543	534	548	357	557	557	526

Figure 5: Number of cervical smears taken per province group by indication for taking a smear, per 10 000 women, 1986-1995

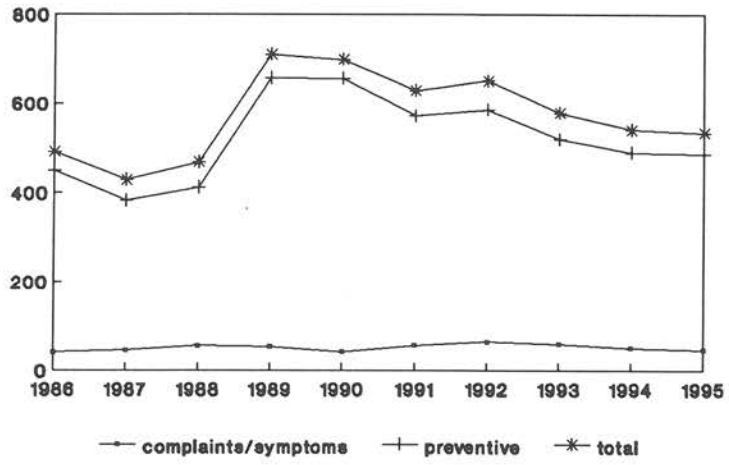
province group A



province group B



province group C



province group D

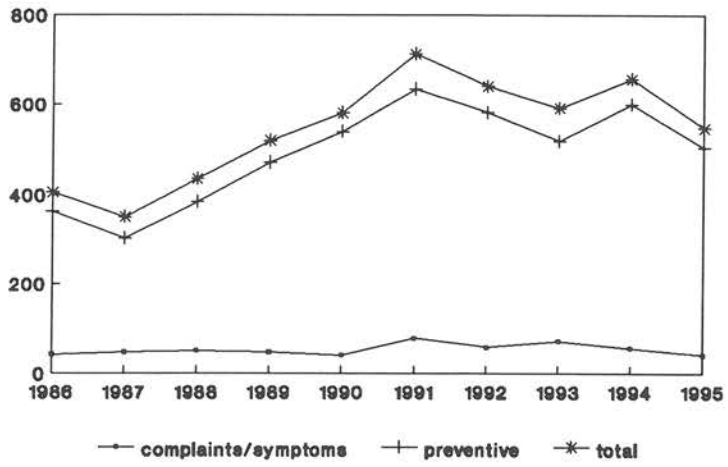
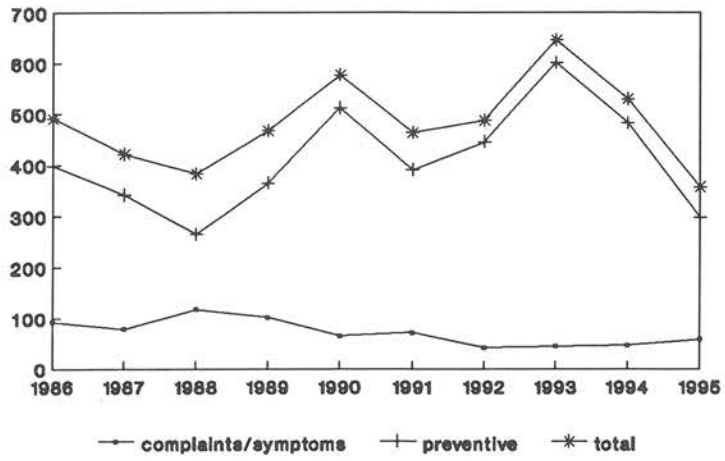
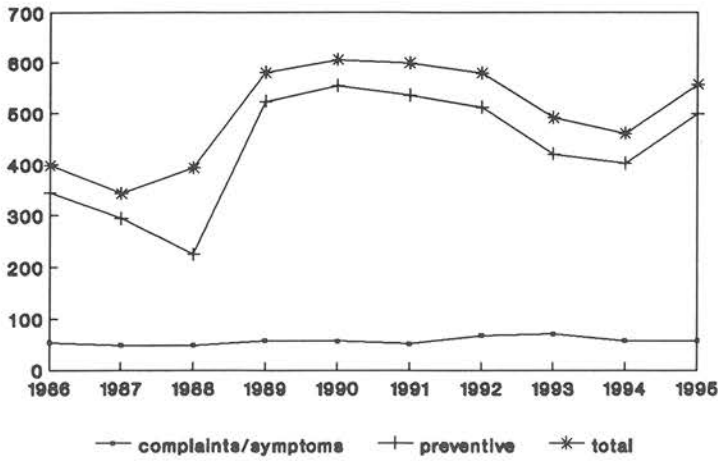


Figure 6: Number of cervical smears taken per degree of urbanization and for the Netherlands, by indication for taking a smear per 10 000 women, 1986-1996

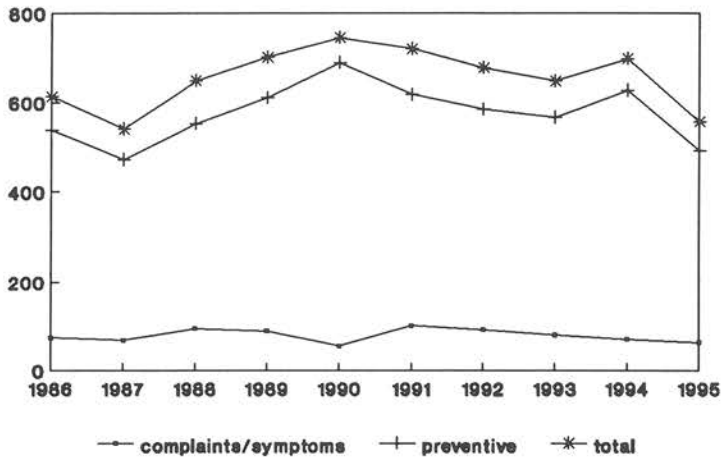
degree of urbanization 1



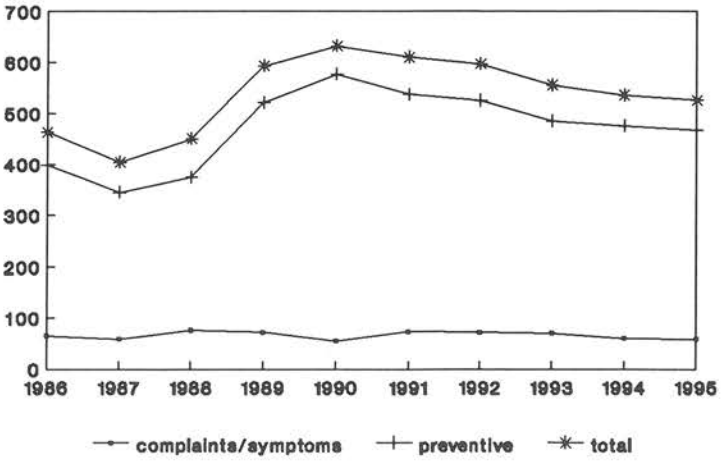
degree of urbanization 2



degree of urbanization 3



Netherlands



Age distribution

Table 9 gives a survey of the number of **"first"** smears by age group per 10 000 women (cf. Fig. 7).

Table 9: Number of **"first"** smears taken by spotter physicians by age group, per 10 000 women, 1986-1995

	age group							
	10-14	15-19	20-24	25-34	35-44	45-54	55-64	≥65
1986	(2)	54	459	1008	991	729	273	42
1987	-	57	323	845	943	634	236	24
1988	(2)	33	319	777	1050	612	292	38
1989	(2)	32	353	919	1616	1187	253	32
1990	(2)	61	306	797	1805	1487	279	34
1991	(5)	20	270	760	1782	1459	229	34
1992	-	16	237	753	1739	1262	288	39
1993	(3)	23	188	674	1607	1353	179	40
1994	(2)	26	196	592	1588	1196	220	29
1995	-	35	186	570	1505	1240	300	29

The increase in the number of 'first' smears taken after 1988, which, as expected, is found above all in the 35-54 age group, was converted in 1991 into a fall, which continued in 1995 too.

In the 25-34 age group there have been lower numbers ever since 1987 in comparison with the years 1984-1986. In the even younger age groups too there is a fall.

A striking rise in the number of smears taken occurral in 1995 in the 55-64 age group.

This table makes it possible to calculate the percentage of women who are reached by the GP at least once every three years. For the 35-44 age group that is for the period 1993-1995 47% and for the 45-54 age group 38%. Around 1983, when the old-style mass screening was still in full swing, for the same age groups the percentages of women that were reached were 21 and 15 respectively. The GP apparently reaches the older group less well. That can in part be explained by the number of women increasing with age with a total uterus extirpation. This number is estimated for the total 35-54 age group at 14%, of which the 45-54 age group accounts for the majority.

Figure 7: Number of 'first' cervical smears taken by age group, per 10 000 women, 1986-1995

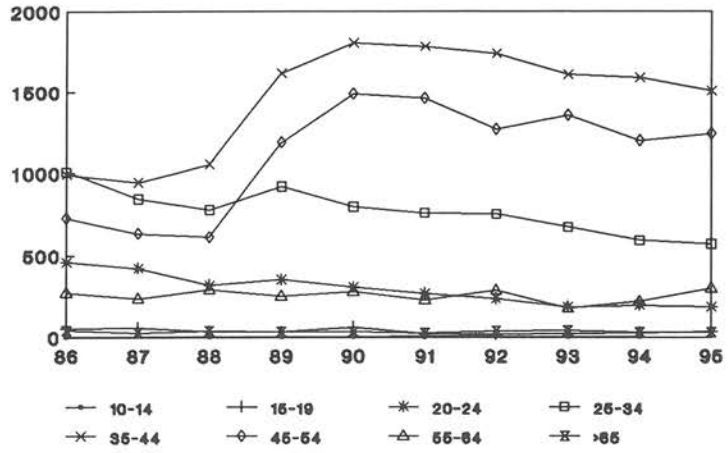


Table 10 gives a breakdown by age and indication for taking a smear, including the repeat smear (see also Figure 8).

Table 10: Number of smears taken by spotter physicians by age group and by indication for taking the smear, per 10 000 women, 1986-1995

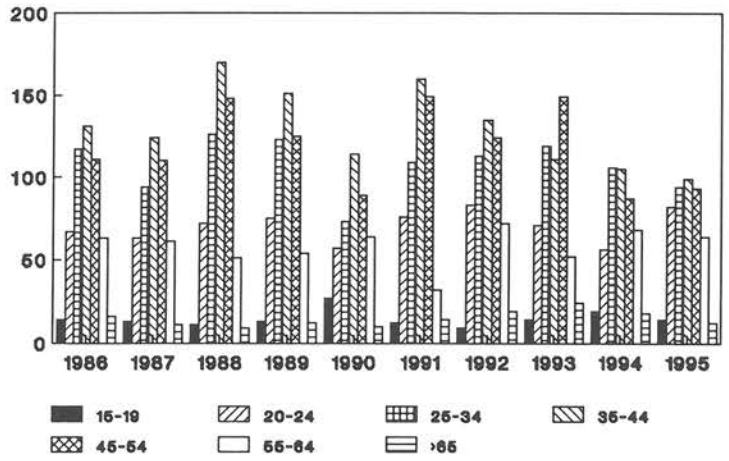
		age group						
		15-19	20-24	25-34	35-44	45-54	55-64	≥65
complaints and/	1986	14	67	117	131	11	63	16
or symptoms	1987	13	63	94	124	110	51	11
	1988	11	72	126	170	148	51	9
	1989	13	75	123	151	125	54	12
	1990	27	57	73	114	89	64	10
	1991	12	76	109	160	149	32	14
	1992	(9)	83	113	135	124	72	19
	1993	14	71	119	111	149	52	24
	1994	19	56	106	105	87	68	18
	1995	21	84	98	100	92	64	12

Table 10: Number of smears taken by spotter physicians by age group and by indication for taking the smear, per 10 000 women, 1986-1995 (continuation)

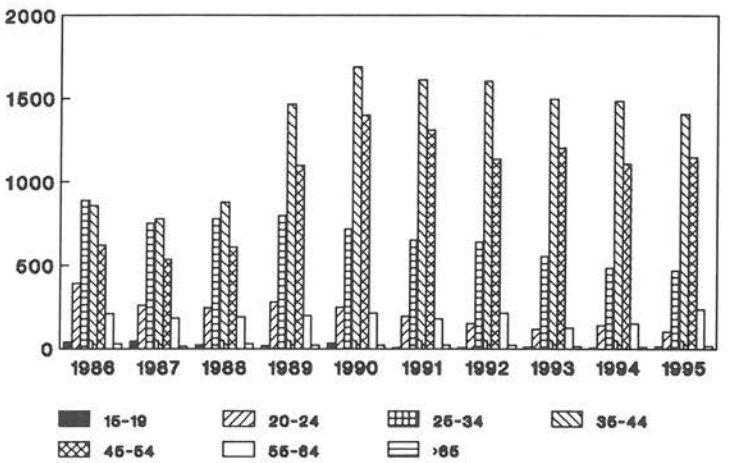
		age group						
		15-19	20-24	25-34	35-44	45-54	55-64	≥65
preventive	1986	40	392	891	860	618	210	28
	1987	44	260	751	776	534	185	13
	1988	23	247	776	877	608	193	29
	1989	19	278	796	1466	1098	200	21
	1990	34	249	715	1690	1398	216	23
	1991	(8)	194	651	1612	1310	181	20
	1992	(7)	154	640	1604	1138	216	21
	1993	(9)	117	555	1495	1204	127	15
	1994	(7)	140	486	1483	1109	152	11
	1995	14	103	471	1405	1147	236	17
repeat smear	1986	-	64	325	459	369	125	9
	1987	(8)	79	353	532	483	154	15
	1988	(6)	78	408	612	607	123	12
	1989	12	86	282	657	624	137	13
	1990	(5)	79	293	789	734	143	17
	1991	-	63	244	746	614	104	11
	1992	(2)	46	226	699	622	106	10
	1993	(11)	44	182	643	706	92	11
	1994	-	34	246	803	709	121	8
	1995	(7)	31	197	771	796	148	14
total	1986	54	523	1333	1450	1098	398	53
	1987	65	402	1198	1432	1127	390	39
	1988	40	397	1310	1659	1363	367	50
	1989	44	437	1201	2274	1847	391	46
	1990	60	385	1081	2593	2221	423	50
	1991	20	333	1004	2518	2073	317	45
	1992	18	283	979	2438	1882	394	50
	1993	34	232	856	2249	2059	271	50
	1994	26	230	838	2391	1905	341	37
	1995	42	218	766	2276	2035	448	43

Figure 8: Number of smears taken by spotter physicians by age group and by indication for taking the smear, per 10 000 women, 1986-1995

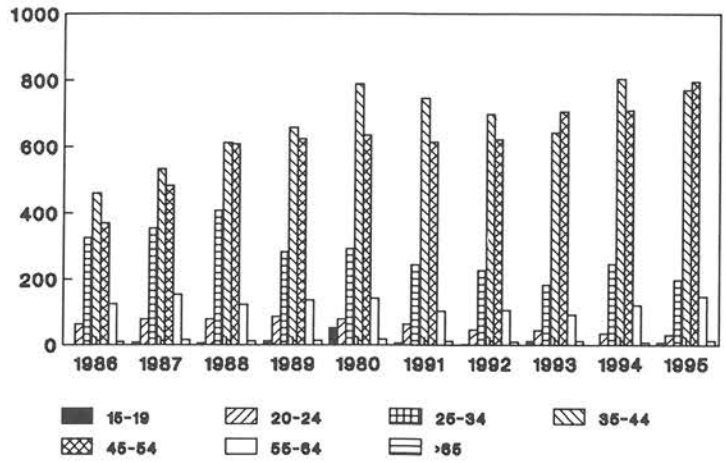
complaints and/or symptoms



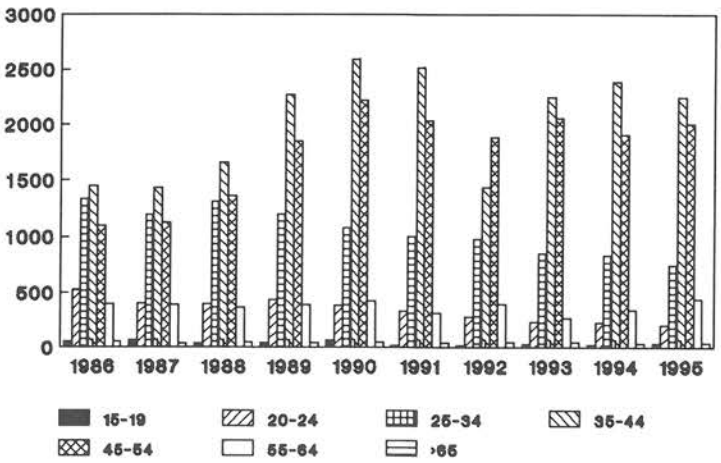
preventive



repeat smear



total



There are no great changes in the number of smears taken on account of complaints and symptoms.
In the case of the first smears made on first indication the numbers in the 35-54 age group are without change the highest. In all younger age groups up to 35 years the number of first preventive smears is still falling. In 1995 too practically no smears were made on preventive indication below the age of 20. The remarkable fall (by practically half) in 1993 in the 55-64 age group was made up again in 1994 and 1995.

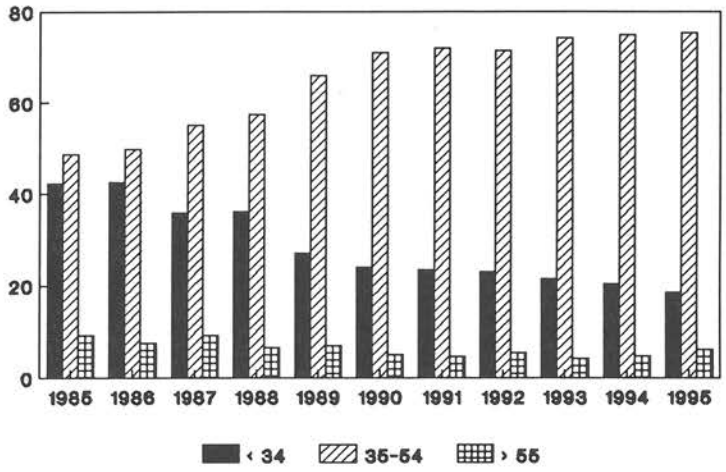
For both the total number of smears and the 'first' smears the share of the 35-54 age group again increased in 1995 (see Table 10).
Since cessation of the old-style mass screening (around 1985) and above all with the start of the new-style mass screening (after 1988) the share of the 35-54 age group had already strongly increased.
Among women younger than 35 years some decrease may still be noted. It applies to women in the 25-34 age group.
For the 20-24 age group stability seems to be occurring after the fall in 1992.
Among women older than 54 years there is an increase in 1994-1995.

Table 11: Proportional distribution of smears taken per age group for all sentinel stations (as percentages), 1985-1995

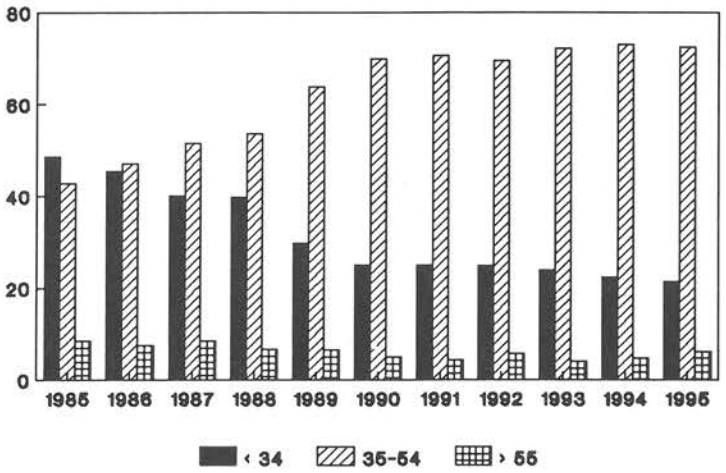
	per age group total number of smears			
year	< 34	35-54	> 55	total
1985	42.2	48.6	9.2	100
1986	42.5	49.8	7.6	100
1987	35.8	55.0	9.2	100
1988	36.1	57.4	6.5	100
1989	27.0	66.0	7.0	100
1990	24.0	71.0	5.0	100
1991	23.4	72.0	4.6	100
1992	23.0	71.5	5.5	100
1993	21.5	74.3	4.2	100
1994	20.4	74.9	4.7	100
1995	18.8	75.2	6.0	100
	per age group "first smear"			
1985	48.7	42.8	8.5	100
1986	45.4	47.1	7.5	100
1987	40.0	51.5	8.5	100
1988	39.7	53.6	6.7	100
1989	29.7	63.8	6.5	100
1990	25.0	70.0	5.0	100
1991	25.0	70.6	4.4	100
1992	24.8	69.5	5.7	100
1993	23.8	72.1	4.1	100
1994	22.3	73.0	4.7	100
1995	21.6	72.3	6.1	100

Figure 9: Proportional distribution of smears taken by age group for all sentinel stations (in percentages) 1985-1995

age distribution for total number of smears



age distribution for 'first' smears



Conclusion.

The principal developments may be summarized as follows. In the five -year period 1983-1987, when the old-style mass screening was ended, the number of preventive smears in the sentinel stations in the 35-54 age group gradually increased, by in total 30 percent. Thereafter the number doubled in the period 1988-1990, when the new-style mass screening began.

It is striking that after the peak year 1990 the number of preventive smears in the 35-54 age group steadily fell, returning in 1995 to the 1989 level. This development, which also applies to the repeat smears, is difficult to interpret. Is this a disturbing decrease in the interest in screening? Or is more selective use being made of screening, and for instance the extension of the screening interval from 3 to 5 years, which has been meanwhile decided upon by the professional groups, being anticipated? An indication of a more selective use of screening can be derived from the constant, considerable decrease in the number of preventive smears in the age groups below 35 years, and above all below 25 years (Table 10). The number of smears among women younger than 35 years is lower than has ever been registered since 1978.

The results of this topic will continue to be important until introduction of the national information system on mass screening for cervical cancer, which has been developed on the instructions of the Ministry of Public Health, Welfare and Sport.

This topic has been maintained on the weekly return in 1996.

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

Veen van W.A. (Commentary)
General Practitioner and Cervical Screening: achieving more with fewer smears.
Huisarts en Wetenschap, 1994, 337(6); 226-9.

Practically everywhere in the Netherlands mass screening for cervical cancer was resumed in 1989. As a rule local authorities with the Municipal Medical and Health Service attend to the invitation system, while the GP performs the smear and supervises the follow-up of considerably differing smears. A high reach, above all for the older women in the target group, is by far the most important condition for effective mass screening.
What are the experiences so far with this mass screening? Do these already occasion the choice of a certain invitation system?

MAMMOGRAPHY

The results of the H.I.P. (Health Insurance Plan) study that started in New York in 1963, which became available from 1971, displayed a clear decline in mortality from breast cancer in the group of women older than 50 years. These results were a reason to set up trial projects in Utrecht and Nijmegen and elsewhere outside the Netherlands. Data resulting from the two projects confirm that a well-organized mass screening for breast cancer for women 50-69 years old can have a favourable effect on mortality from this disorder.

In 1987 both the Health Council and the National Council for Public Health made a positive recommendation on the acceptability of national mass screening for breast cancer by means of mammography. Thereupon the State Secretary of Public Health took a positive decision in principle on national introduction of the screening from 1990 onwards. On 29 April 1993 the definitive decision likewise proved positive. By the beginning of 1994 40 of the in total 43 planned screening centres had started or were already engaged for some time in the mass screening. It is expected that the mass screening will cover the whole country by the end of 1995.

The number of mammograms made annually in the Dutch hospitals is not properly known. Even less is known about the indications on the basis of which examinations have been requested.
The Ministry of Public Health, Welfare and Sport and the Health Insurance Fund Council consider it important from a policy point of view to be well informed about the present number of mammograms and above all too about shifts that may occur in these when the mass screening is introduced in phases.

The phased introduction of national screening means that during a period of several years screening will be performed at one place but not at another. Where screening does take place, women younger than 50 and those older than 69 will for the time being not be enabled to participate in the screening, in anticipation of the results of further research. This is in anticipation of the results of further scientific research into the effects of the mass screening for the age group.
These two circumstances may lead to an additional call on the available

capacity. Both women in areas where screening is not yet being performed and women below the age of 50 or above the age of 69 may be of the opinion that they too should qualify for mammography. Such an effect is considered undesirable, because screening can be justified only if special requirementis are met. In addition to the quality, the (considerable) costs also play a part.

In this registration the issue is the extent of the mammographic diagnosis requested by the general practitioner. A breakdown has been made into first and repeat examination. In the mass screening for breast cancer an interval of two years between two scanning rounds has been adhered to. This is also the case with the present registration. With a view to this the criterion for the distinction between first and repeat examination is formed by the question whether a mammogram has been made for the woman in question at any time after 1 January 1994. If at any time after 1 January 1994 a mammogram has been made for a woman and such an examination is performed **again**, this should be registered under the subgroup "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 is performing 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.)[11] The same group is evaluating the actual cost and effects.

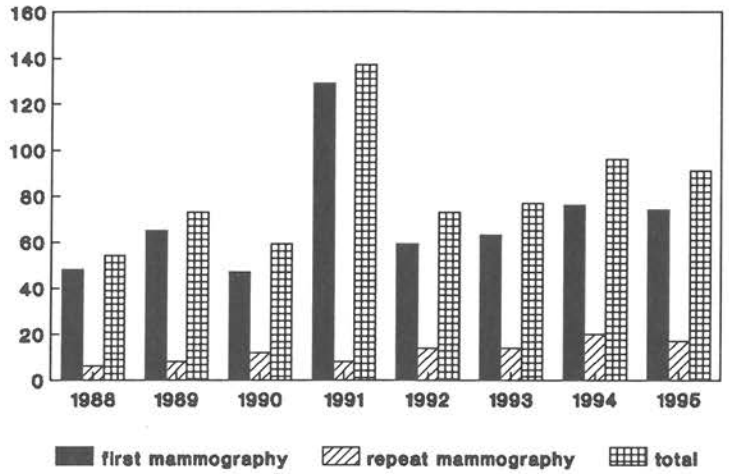
Table 12 gives the numbers of mammograms per province and degree of urbanization and for the Netherlands (cf. Figs 10 and 11).

Table 12: Number of mammograms per province and degree of urbanization and the Netherlands per 10 000 women in 1988-1995

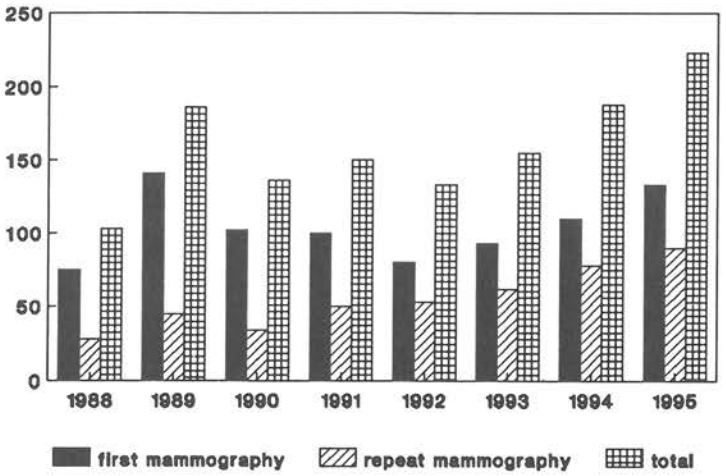
		province group				degree of urbanization			Nether-lands
		A	B	C	D	1	2	3	
first mammography	1988	48	75	92	81	80	79	81	80
	1989	65	141	77	84	154	71	87	87
	1990	47	102	88	125	102	87	101	92
	1991	129	100	93	112	103	92	142	105
	1992	59	80	105	101	87	95	90	93
	1993	63	93	155	106	105	129	96	117
	1994	76	110	116	128	97	119	101	111
	1995	74	133	104	104	124	96	124	104
repeat mammography	1988	6	28	9	17	26	11	8	12
	1989	8	45	6	15	41	10	11	15
	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
total	1898	54	103	101	98	106	90	89	92
	1989	73	186	83	99	195	80	98	102
	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

Figure 10: Number of mammograms per province group, per 10 000 women, 1988-1995

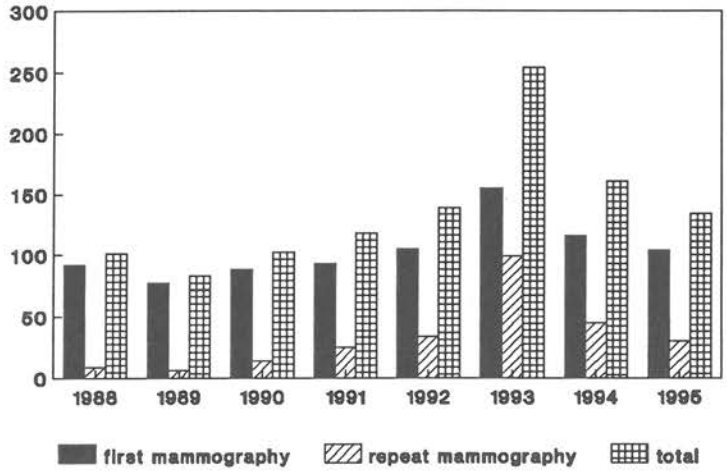
province group A



province group B



province group C



province group D

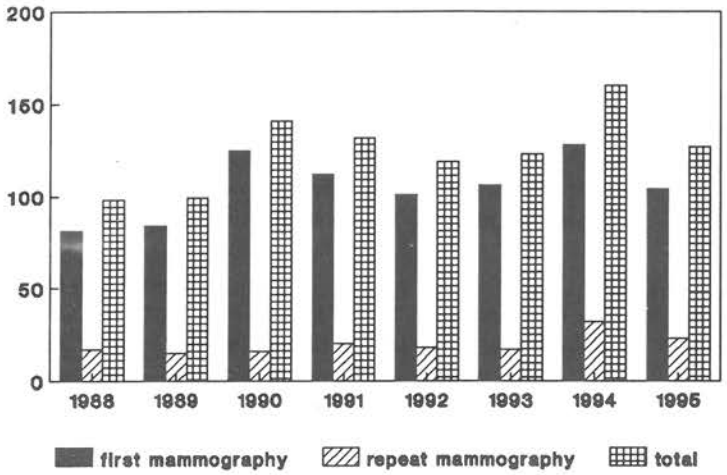
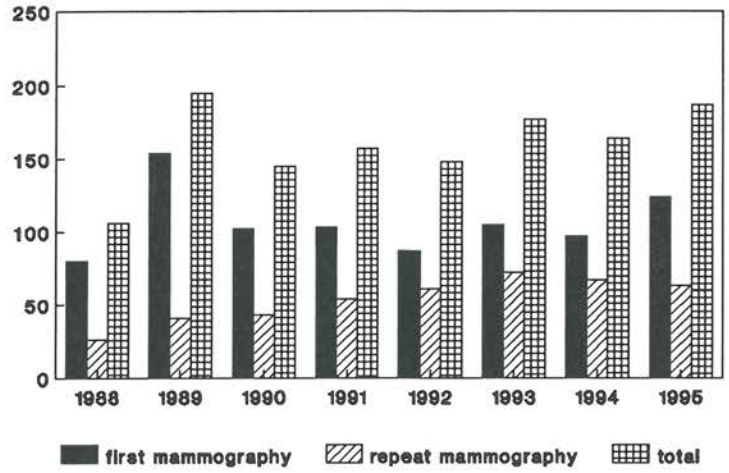
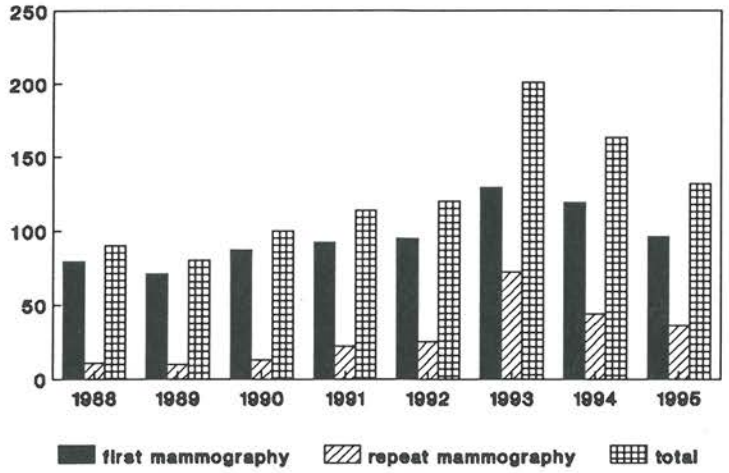


Figure 11: Number of mammograms per degree of urbanization and for the Netherlands per 10 000 women, 1988-1995

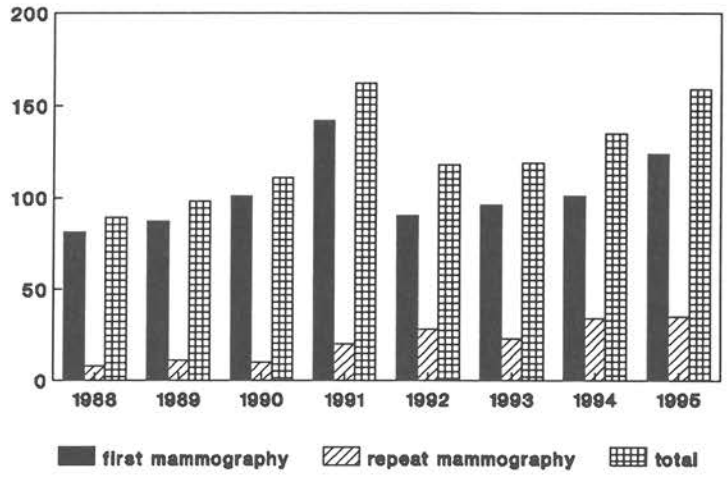
degree of urbanization 1



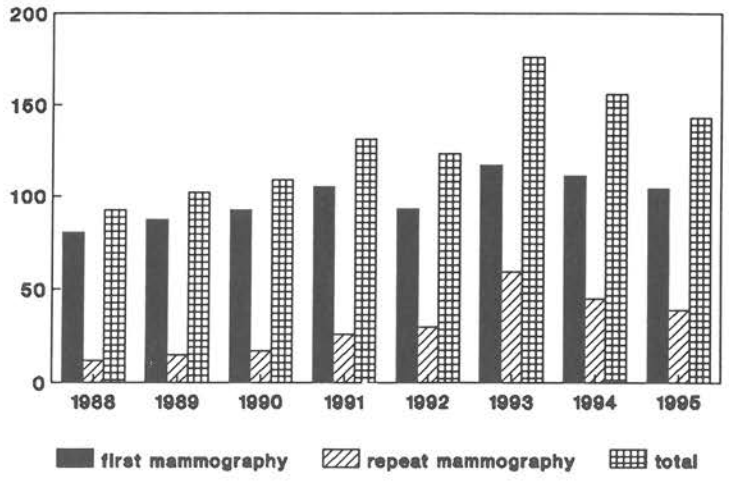
degree of urbanization 2



degree of urbanization 3



Netherlands



The number of mammograms was in 1994 for the second year lower than in the previous year. Only in the eastern provinces is there still an increase in number of mammograms made outside the mass screening. In the other province groups the number is falling.
It is striking that, when the number of 'first mammograms' clearly increases, there is also an increase in the number of repeat examinations. This suggests periodical screening outside the mass screening.
It is being investigated whether the local start of the mass screening for breast cancer affects these results (Dr H.J. de Koning, Erasmus University).
A remarkable feature is the continuing relatively low number of mammograms in the northern provinces, where the mass screening began relatively late and still has only a slight degree of cover.

In Table 13 the number of mammograms is stated by age group per 10 000 women.

Table 13: Number of mammograms requested by the GP by age group per 10 000 women for 1988-1995

	Age group									
	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79
first mammography										
1988	144	170	195	179	124	95	96	71	37	15
1989	124	189	223	213	159	127	102	46	34	31
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
repeat mammography										
1988	16	25	30	34	23	21	12	(4)	(8)	(10)
1989	17	34	42	37	28	31	18	8	(8)	(10)
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
total										
1988	160	195	225	213	147	116	108	75	45	25
1989	141	223	275	250	187	158	120	54	42	41
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

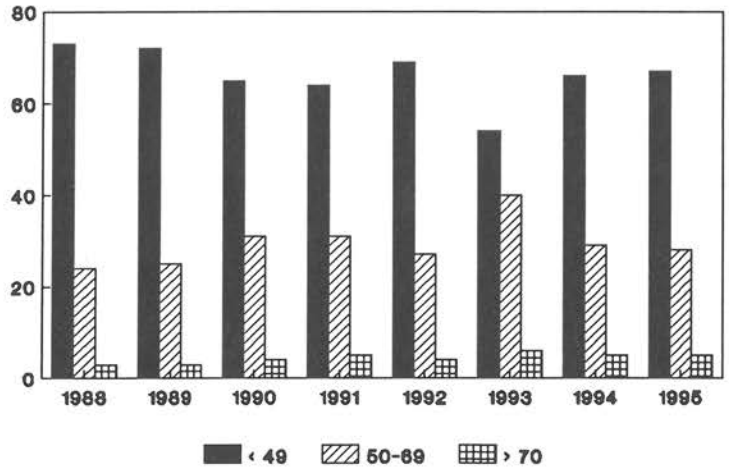
In the past years the majority of the mammograms have always been requested for women who fall outside the age group for which the screening is organized. It is above all the women in the 35-49 age group on whom mammography is performed. Among women older than 70 years this examination takes place to a relatively small extent. The percentage of repeat mammograms is clearly higher among the younger women than among the women of 70 years and older (among the 40-50 year-olds approx. 50%, among the women of 70-74 years 39% and among the women of 75-79 years

17%). There therefore seems to be periodical screening occurring outside the mass screening, above all among the women of 40-50 years (about 10% of this age group).

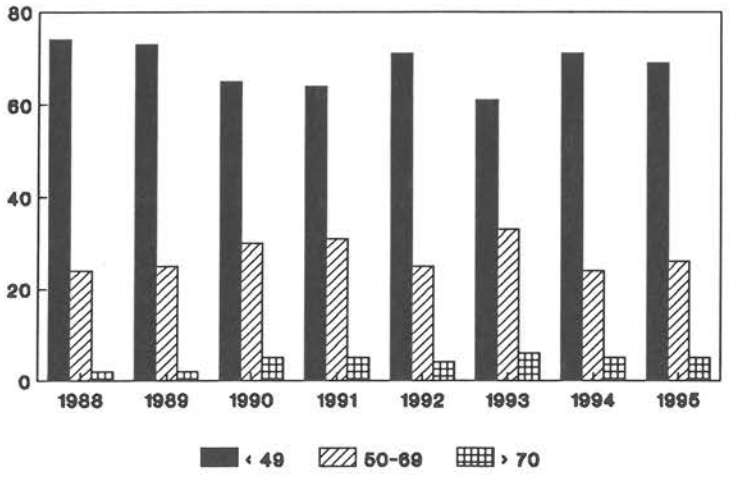
Table 14: Proportional distribution of all mammograms requested by the GP by three age groups. Percentages, 1988-1995

year	≤49	50-69	≥70	total
	age distribution, total number of mammograms			
1988	73	24	3	100
1989	72	25	3	100
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
	age distribution, "first" mammograms			
1988	74	24	2	100
1989	73	25	2	100
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

Figure 12: Proportional distribution of all mammograms requested by the GP in three age groups (percentages), 1988-1995



age distribution for 'first' mammograms



In 1996 the topic is maintained on the weekly return.

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.

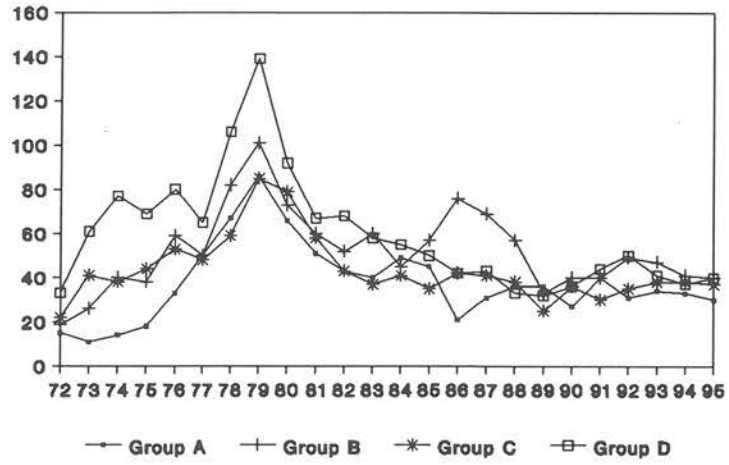
The number of sterilizations of men performed per 10 000 of all men and per province group and degree of urbanization is given in Table 15 (cf. Fig. 13).

Table 15: number of sterilizations of men performed, per province group and degree of urbanization per 10 000 men, 1986-1995

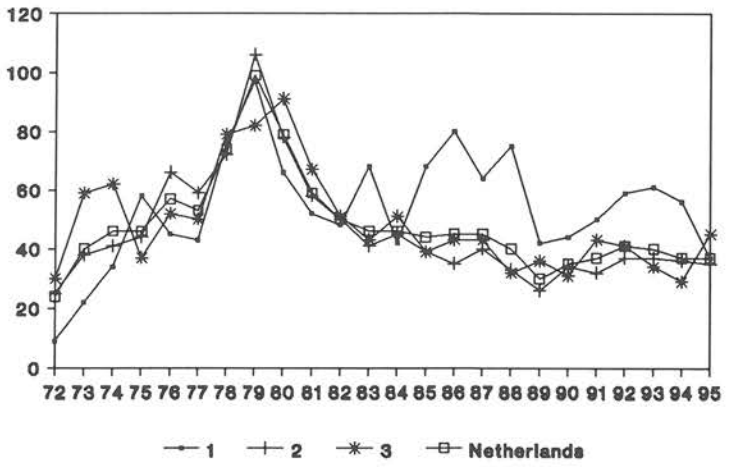
	province group				degree of urbanization			Nether-lands
	A	B	C	D	1	2	3	
1986	21	76	42	42	80	35	43	45
1987	31	69	41	43	64	40	43	45
1988	36	57	38	33	75	33	32	40
1989	36	33	25	32	42	26	36	30
1990	27	40	36	36	44	34	31	35
1991	40	40	30	44	50	32	43	37
1992	31	49	35	50	59	37	41	41
1993	34	47	38	41	61	37	34	40
1994	33	41	38	37	56	36	29	37
1995	31	41	38	40	39	35	46	38

Figure 13: Number of sterilizations of men performed, per province and degree of urbanization and for the Netherlands, per 10 000 men, 1972-1995

province group



degree of urbanization and the Netherlands



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 1992 and 1993 the number again exceeded 40 per 10 000 men. In 1994 and 1995 the number was slightly below 40: 37 and 38 per 10 000 men.

For a number of years now the number of sterilizations among men in rural municipalities is considerably higher than in the other two urbanization groups. Among women that is much less the case (see the following chapter, p. 61).

After extrapolation a figure of 29 000 sterilizations is arrived at for the whole of the Netherlands in 1995. 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 1995 was as high as the replacement factor (28 000). 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 remained the same in 1995 as in 1994. The percentage of men sterilized at some time who statistically speaking belong to the fertile age group (17-51 years)[12] was 12.2% in 1995. This percentage has already been practically constant since 1986. For women it is, however. falling (see below).

In Figure 15 (see p. 63) 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 1995 the sterilization ratio of men to women was 62:38. There may be some change occurring in the appreciation of sterilizations by women and men.

Age distribution

The age-specific distribution of the number of sterilizations performed per 10 000 men is given in Table 16 (cf. Fig. 16, see p. 64).

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 1.5% in 1993, and in 1995 only 0.9%.

Table 16: number of sterilizations performed on men by age group, per 10 000 men, 1986-1995

	age group						
	20-24	25-29	30-34	35-39	40-44	45-49	50-54
1986	(2)	30	191	167	122	62	(6)
1987	(2)	32	139	219	111	66	(3)
1988	(2)	27	128	166	111	66	-
1989	-	20	92	149	75	37	-
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

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 1990 an end seemed to have come to the declining trend in the number of sterilizations performed on men. In the 30-44 age group there was again an increase, for the first time in years. In 1994 and 1995 too the number of sterilizations in this age group is above the 1989 level.

A striking feature is the larger number of sterilizations of men of 50-54 years. However, in absolute terms a relatively small number is involved.

A cumulative calculation shows that in the Netherlands since 1971 at least 791 000 sterilizations of the man have been performed, that is among 10.3% of the present male population. For a further study see the next section, in which the topic 'sterilization of the woman' dealt with.

The question has been maintained on the 1996 weekly return.

STERILIZATION OF THE WOMAN

Sterilization of the woman performed was placed on the weekly return in 1974 (of the man performed in 1972). In 1995 24 sterilizations per 10 000 women were performed, somewhat higher compared with equal to the preceding six years. Extrapolation of these figures to the whole of the Netherlands yields a number of 19 000 sterilizations in 1995.
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 17 (cf. Fig. 14).

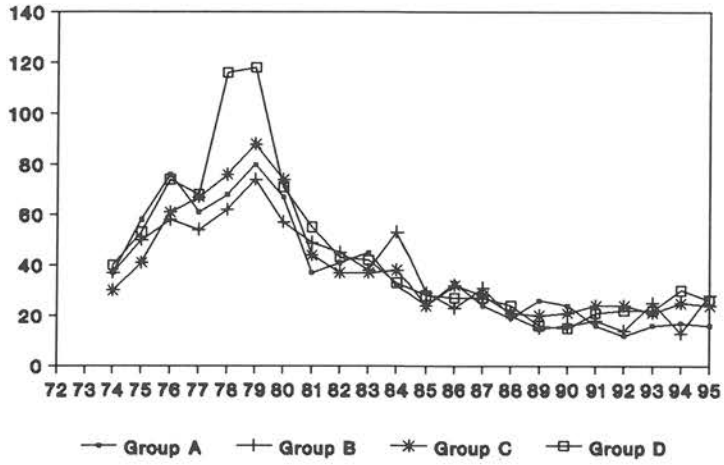
Table 17: number of sterilizations of women performed, per province and degree of urbanization, and for the Netherlands per 10 000 women, 1986-1995

	province group				degree of urbanization			Nether-lands
	A	B	C	D	1	2	3	
1986	33	23	32	27	30	27	35	29
1987	24	31	28	27	37	24	31	28
1988	19	20	21	24	27	20	21	22
1989	26	15	20	16	22	17	23	19
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

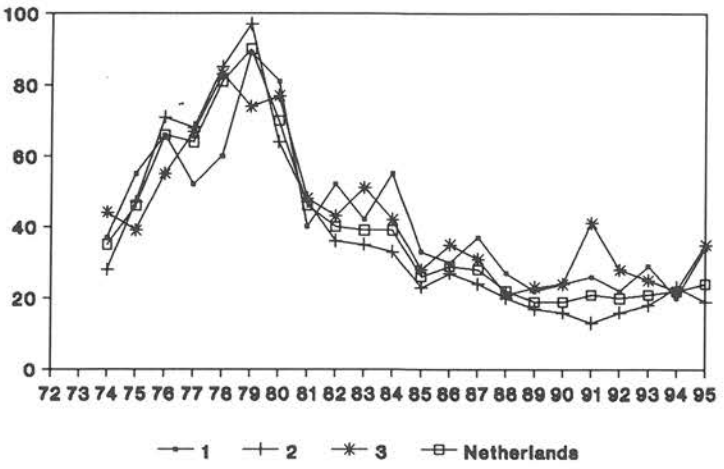
The eastern and southern province groups display the highest numbers among both women and men.
In the cities most sterilizations of the man occurred in 1995, in contrast to the previous 10 years (see page 56). Among women this is less pronounced.

Figure 14: Number of sterilizations of women performed, per province and degree of urbanization and for the Netherlands, per 10 000 women, 1972-1995

province group



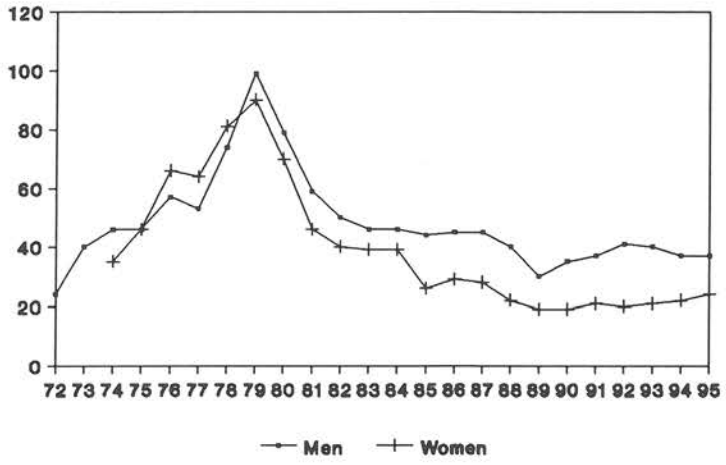
degree of urbanization and the Netherlands



Since 1988 the number of sterilizations of women has remained at the same level. In the various subgroups a number of fluctuations do occur, but without an obvious trend.

Figure 15 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 also apply here. From 1985 onwards the curves for men and women have diverged.

Figure 15: Number of sterilizations performed per 10 000 men and 10 000 women, for the Netherlands, 1972-1995

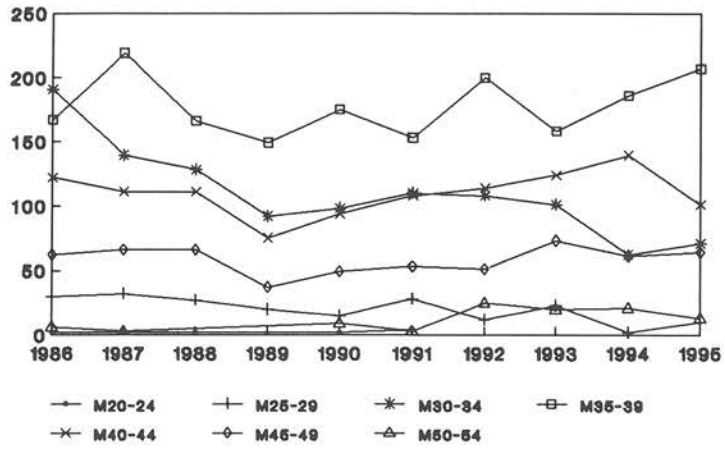


Age distribution

The age-specific distribution of the number of sterilizations performed per 10 000 women is given in Table 18 (cf. Fig. 16).

Figure 16: Number of sterilization performed by age group, per 10 000 men and women, 1986-1995

men



women

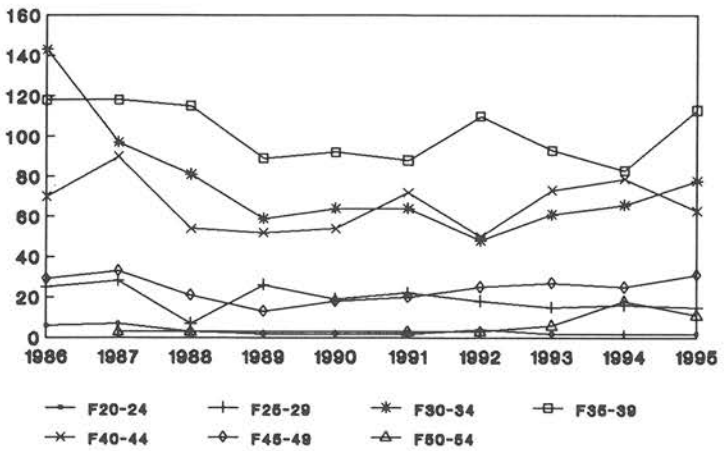


Table 18: number of sterilizations performed on women by age group, per 10 000 women, 1986-1995

	age group						
	20-24	25-29	30-34	35-39	40-44	45-49	50-54
1986	(6)	25	143	118	70	29	-
1987	(7)	28	97	118	90	33	(3)
1988	(3)	7	81	115	54	21	(3)
1989	(2)	26	59	89	52	13	-
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

Sterilization of women is performed above all between the ages of 30 and 45; the largest number of sterilizations is -as with men- performed between 35 and 39.

A cumulative calculation shows that in the Netherlands since 1973 in total sterilization has been performed on at least 622 000 women, i.e. 8.0% 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 22.4 in 1984 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 1991 21.8, in 1993 21.3 in 1994 21.0 and in 1995 20.9%. The number of sterilizations (of men **and** women) that ought to have been performed in 1995 on the basis of this calculation to keep the total percentage equal to that of 1993 was 53 000. In reality this number was only 48 000 (29 000 men and 19 000 women).

Table 19: percentage of women and men belonging to the fertile age group that have undergone sterilization at some time, 1980-1995.

Year	women per 100 15-49 y	men per 100 17-51 y	total m+f per 100 15-49 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

Since 1985 there has been a fall in the percentage of sterilized women in the fertile age group. In 1984 this percentage reached its peak with 10.9, after which it gradually declined to 8.7 in 1995. Among men the percentage of those sterilized has remained constant since 1986 (see Table 19). The percentage of sterilized women and men together has been falling since 1986. One can therefore speak of a decreasing popularity of sterilizations as a method of birth control. According to Dr E. Ketting, who made these calculations, the above is probably bound up with two factors. In the first place women want to have (further) children at a steadily later age, as a result of which a decision concerning sterilization is increasingly postponed and often also put off indefinitely. And in the second place objections to still using oral conception at a later age have clearly lessened in recent years, partly through the introduction of types containing a lighter dose, as a result of which the need for sterilization is decreasing.

Much more clearly even than among men, the popularity of sterilization among young women has consequently been declining quickly in recent years. In 1980 6.9% of women aged between 25 and 29 had been sterilized, as against 0.8% in 1995. Since 1984 there has now also been a considerable decline among the 30-34 age group of women (from 13.8% in 1985 to 4.2% in 1994). In the 35-44 age group the decline is much less (from 21.2% in

1985 to 15.5% in 1995).
Incidentally, it is interesting that the Netherlands, as far as is known, is the only country where clearly more men than women have been sterilized. This ratio is at present 12.2% men to 8.7% women. (In the fertile age group 514 000 men and 349 000 women has been sterilized in 1995.)

The topic sterilizations has been maintained on the weekly return for 1996.

OESTROGENS PRESCRIBED

Oestrogenic substances (whether or not combined with a progesterone) have a shifting field of application particularly around and after the menopause.

The pressure to prescribe oestrogens for women in the menopause is growing. Women are being informed via the mass media. It is conceivable that, just as with the pill, the use of oestrogens will increase under pressure from women.

However, Moors established earlier in 1992 that the reticence of GPs with regard to hormone replacement contrasts with the enthusiasm with which they almost simultaneously introduced the large-scale use of oral contraception in the Netherlands.[13] GPs are reserved and divided about the general introduction of hormone replacement, as are specialists, including gynaecologists and internists.

The demographic structure of the female population means that in the years to come the number of women in the target group will considerably grow.

The physicians were asked to register when they issue a prescription for oestrogens (whether or not combined with a progesterone). They were asked to make a distinction between a first prescription and a repeat one.

Table 20 shows the number of first prescriptions and repeats for oestrogen by province group and degree of urbanization and for the Netherlands per 10 000 women in the 40-60 age group.

Table 20: number of first and repeat prescriptions for oestrogens by province group and degree of urbanization and for the Netherlands, per 10 000 women of 40-60 years in 1994-1995

		province group				degree of urbanization			Nether-lands
		A	B	C	D	1	2	3	
1st prescription	1994	83	297	236	150	153	161	273	180
	1995	71	163	135	199	235	114	193	145
repeat prescription	1994	468	687	854	669	890	616	809	732
	1995	277	538	502	442	966	380	374	459
ratio of 1st to repeat	1994	1/5.6	1/3.5	1/3.6	1/4.5	1/5.8	1/3.8	1/3.0	1/4.1
	1995	1/3.9	1/3.3	1/3.7	1/2.2	1/4.1	1/3.3	1/1.9	1/3.2

In 1995 the largest number of women received a first prescription for oestrogens in the southern province groups. In the northern provinces that number is the lowest. As regards the repeat prescriptions, they are issued the most in the eastern provinces and the least in the northern ones.

In the degrees of urbanization the picture is different. The number of first prescriptions for oestrogens is the highest in the rural municipalities, where the most repeat prescriptions are also issued.

When a relatively large number of first prescriptions are issued in proportion to the number of repeat prescriptions, more short-term use may be assumed. This proves to be the case in the eastern and southern provinces and in the cities.
This can point to a greater inclination to use oestrogens 'on trial'. In a number of situations the woman and the physician then decide against long-term use.

Age distribution
The age-specific distribution of the number of first and repeat prescriptions per 10 000 women appears in Table 21.

Table 21: Number of first and repeat prescriptions for oestrogens by age group per 10 000 women in 1994-1995

age group	1st prescription		repeat prescription		ratio	
	1994	1995	1994	1995	1994	1995
40-44	57	53	175	94	3.1/1	1.8/1
45-49	185	170	662	489	3.6/1	2.9/1
50-54	381	277	1527	930	4.0/1	3.4/1
55-59	119	106	741	459	6.2/1	4.3/1
60-64	36	63	214	148	5.9/1	2.3/1
65-69	23	56	143	151	6.2/1	2.7/1
70-74	22	40	72	51	3.3/1	1.3/1
75-79	24	24	66	38	2.8/1	1.6/1
80-84	13	6	31	38	2.4/1	6.3/1
>85	22	30	15	90	0.7/1	9.0/1

Up to an advanced age women have oestrogens prescribed by their GP. Around the menopause and in the first years after it the number is the highest: prescription of oestrogens started in 1994 for nearly 4% of the women in the 50-54 age group; in 1995 this was nearly 3%.
The number of women receiving a repeat prescription is lower than 10%: several repeat prescriptions may have been issued to a woman in a year. The registration in this form does not allow of a pronouncement on this.
Other sources (pharmacies) are better able to trace the long-term users of hormone replacement.

After the 59th year the use of oestrogens declines considerably.

Long-term use for the prevention of osteoporotic fractures proves to be of limited occurrence in practice on the basis of these data. Insofar as lengthy use does occur, that is then above all by women of 55-69 years (the highest ratios for repeat prescriptions/first prescriptions).

The topic is retained on the weekly return in 1996 in amended form, and with a supplementary questionnaire.

CHRONIC BENIGN PAIN DISTURBANCE

The term chronic benign pain disturbance (CBPD) is used when no explanation is found for a patient's complaints of pain. The concept refers to a phenomenon with several dimensions, both physical and psychosocial. In that sense chronic benign pain disturbance is not a medical diagnosis with a corresponding method of treatment.
Chronic benign pain is a problem at individual level and socially. The patient is fettered by pain and limited in his functioning. The Health Council[14] pointed out in 1986 that per year 10 000 persons qualify for benefit on the basis of complaints of pain. The present size of the problem is unknown.

The registration of patients with CBPD is part of a study of the incidence and prevalence of CBPD and the medical consumption and functional restrictions as a consequence of CBPD in the Netherlands.

The study is being performed by Nivel in cooperation with the Clinical Psychology and Health Psychology Department of the University of Utrecht. It is under the direction of Professor Dr. J.M. Bensing, director of Nivel and professor at the University of Utrecht.

The GP is asked to register patients who have had pain complaints for a month. It is essential that pain is the most prominent aspect of the clinical presentation. The pain leads for at least a month to obvious discomfort and restrictions in daily life.
Patients are not meant for whom it has been proven that the pain is caused by malign, rheumatic or neurological disorders.
Patients are meant with uncomprehended pain, also including pain syndromes whereby a symptom diagnosis can be made, such as intercostal neuralgia, rectal pain syndrome, trigeminal neuralgia, brachialgia, meralgia paresthetica and other symptom diagnoses.

The GP completes a registration form for each patient. This form asks about the reason for the consultation, the location of the pain, the organic system involved and the course of the pain over time. The GP reports possible reasons for the occurrence of the pain, makes a symptom diagnosis and

states his assessment of the probability of a physical explanation for the pain complaints.

Finally the GP asks the patient to cooperate in the follow-up investigation and issues the patient with a questionnaire. These patient questionnaires are also available in Turkish and Arabic.

After extensive preparations the registration by the GPs and the requesting of patients to participate in the investigation started with effect from 1 October 1995.

The course of the investigation and the provisional results will be discussed in the 1996 annual report.

The topic has been maintained on the weekly return for 1996.

(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.

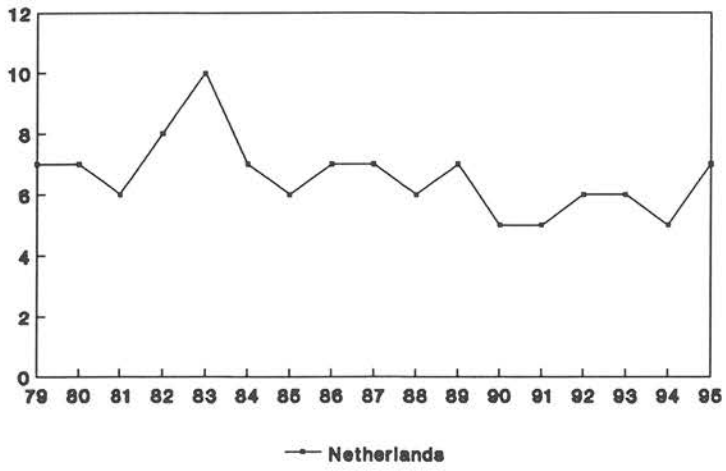
The absolute number of reports (which is not equal to the number of patients, since recidivists are not uncommon) was 67, 60, 84, 73 74 and 95 in 1990-1995.
The number of attempts per province and degree of urbanization per 10 000 inhabitants may be found in Table 22. This breakdown into subgroups is 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; two to three times as many as in rural municipalities.
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 and degree of urbanization and for the Netherlands, per 10 000 inhabitants, 1986-1995

	province group				degree of urbanization			Nether-lands
	A	B	C	D	1	2	3	
1986	8	5	7	6	5	4	15	7
1987	6	6	8	7	5	5	14	7
1988	9	4	7	5	3	5	12	6
1989	6	9	6	8	7	6	10	7
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

Figure 17: Number of reports of (attempted) suicide for the Netherlands, per 10 000 inhabitants, 1979-1995



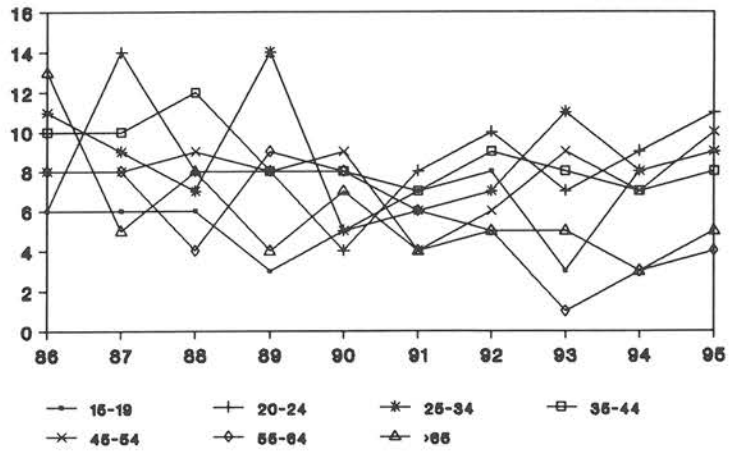
Age distribution

Table 23 gives the frequency of (attempted) suicide per 10 000 inhabitants by age group (see also Fig. 18).

Table 23: Number of reports of (attempted) suicide by age group, per 10 000 inhabitants, 1986-1995

	age group							
	10-14	15-19	20-24	25-34	35-44	45-54	55-64	>64
1986	(4)	6	6	11	10	8	8	13
1987	-	6	14	9	10	8	8	5
1988	-	6	8	7	12	9	4	8
1989	-	(3)	8	14	8	8	9	4
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

Figure 18: Number of reports of (attempted) suicide by age group, per 10 000 inhabitants, 1986-1995



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.

In 1995 Prof. Dr. R.F.W. Diekstra and Mrs. M. van Egmond Ph.D., associated with the Clinical, Health and Personality Psychology Department of Leiden State University, started an analysis of the data on the total period over which registration has taken place (from 1979 to the present). In this analysis a comparison will also be made with a data source that wholly or partly overlaps with that of the CMR Sentinel Stations. The data source that seemed to be the most appropriate for this is the data collected by the Foundation for the Provision of Information on Health Care on discharges from general hospitals after a suicide attempt.
The differences and similarities, both in trends and in characteristics between both data sources, will be commented on.

This topic has been maintained on the weekly return for 1996.

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

Using data from Continuous Morbidity Registration, Sentinel Stations over the period 1979-1986, the authors tried to determine the incidence and the characteristics of patients in general practice who attempted or committed suicide. Almost half of the suicide attempters and suicides had contacted their general practitioner (GP) shortly before the suicidal act. A minority of these cases were recognized by the GP as having a high suicide risk. In almost 70% of the suicides and 58% of the suicide attempters the GPs reported the existence, currently or previously, of a depressive episode. About half of both suicides and the suicide attempters had been treated or seen by mental health professionals or social workers. Given the fact that suicide and suicide attempts are relatively rare events in general practice, and given the fact that for the patients who contact their GP shortly before the suicidal act it is not at all certain whether they present clearly recognizable signs of suicide risk at that time, the authors conclude that GPs cannot play an important role in the prevention of suicidal behaviour.

PELVIC INFLAMMATORY DISEASE (P.I.D.)

Most cases of pelvic inflammatory disease (P.I.D.) are caused by a sexually transmitted agent (Chlamydia trachomatis or Neisseria gonorrhoea).
P.I.D. may have a number of consequences that call for more intensive medical counselling: infertility on account of a tubal closure, ectopic pregnancy and chronic abdominal complaints.[15]

The topic has been placed on the weekly return with the intention of intensifying the epidemiological research into the occurrence of 'new sexually transmittable diseases'. This policy was formulated by the former State Secretary Simons in a letter to the President of the Second Chamber (letter of 17 December 1991).

It is requested that every patient with acute P.I.D. (including salpingitis) be reported.

It has been elected to use the definition maintained in the Amsterdam Sentinel Station Project.
It relates to a patient with acute abdominal pain. The patient is clearly ill. Physical examination reveals pressure pain in the abdomen and in vaginal touch oscillating pain and painful adnexa. Fever (>38°C), leucocytosis (>12-15 000) and an increased sedimentation (>30 mm) support the diagnosis.
The criterion for counting the patient is that antibiotics are prescribed, either by the GP or by a gynaecologist if the patient has been referred for further examination.

The number of women with P.I.D. per 10 000 women per province group and degree of urbanization is given in Table 24 with the number for the Netherlands.

Table 24: Number of women with P.I.D. per province and degree of urbanization and for the Netherlands per 10 000 women, 1993-1995

	province group				degree of urbanization			Netherlands
	A	B	C	D	1	2	3	
1993	9	4	8	7	8	5	10	7
1994	4	10	9	10	10	6	12	9
1995	3	10	10	8	11	7	10	8

The national incidence of P.I.D. is about one third of the incidence that was registered in Amsterdam in 1990: 8 and 24 per 10 000 women respectively.[15] In the northern province group considerably fewer patients with P.I.D. were reported in 1994 and 1995. The numbers in the eastern and southern province groups differ little from each other.
In the rural municipalities somewhat more women with a P.I.D. are reported by the GP than in the dormitory towns and the cities: 11.7 and 10 per 10 000 women respectively.

Seasonal influences
Major differences between the quarters were not found in 1995.

Age distribution
Table 25 gives the age distribution of the patients with P.I.D. reported by the spotter physicians.

Table 25: Number of women with P.I.D. per age group per 10 000 women, 1993-1995

age distribution	women 1993	1994	1995
< 15	(1)	-	-
15-19	9	7	5
20-24	14	10	10
25-29	13	16	15
30-34	11	20	(12)
35-39	13	14	18
40-44	15	13	19
45-49	(5)	8	10
50-54	(9)	18	13
> 54	(1)	(2)	(2)

P.I.D. proves to be a disease above all of women in the 15-44 age group. This finding tallies with the results of the registration by the Amsterdam GP in the period 1983-1990.

The topic will be continued in 1996.

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 (C 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 and degree of urbanization, along with the number for the whole of the Netherlands, is given in Table 26.

Table 26: Number of patients with urethritis per province and degree of urbanization and for the Netherlands, per 10 000 men, 1992-1995

	province group				degree of urbanization			Nether-lands
	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

The national incidence of urethritis is about one third of that in Amsterdam: on average 26 and 99 per 10 000 respectively.[16]
In all four years urethritis is clearly reported more in the eastern and western provinces.
From 1992 to 1994 most men with urethritis were seen by GPs in the cities. Compared with 1992, in 1993-1995 a drastic fall in the number of registered men with urethritis occurred in the cities. The number of reports of urethritis in 1995 was the highest in the rural municipalities.

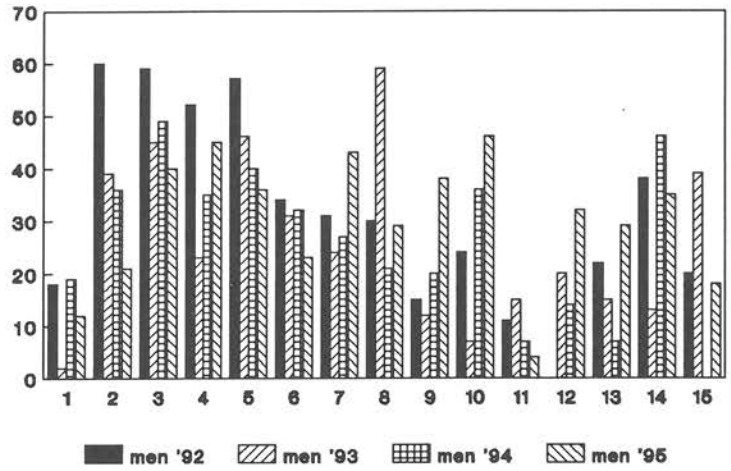
Seasonal influences
Major differences between the seasons were not found.

Age distribution
In Table 27 the age distribution is given of the patients with urethritis reported by the general practitioner (see also Figure 19).

Table 27: Number of patients with urethritis per age group per 10 000 men, 1992-1995

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

Figure 19: Number of patients with urethritis per age group per 10 000 men, 1992-1995



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=> 84

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.

The topic will be repeated in 1996.

CONCERN ABOUT AIDS

General practitioners are confronted in their practice with AIDS patients and seropositivity to only a limited extent. Only general practitioners in Amsterdam and a few other cities and the occasional general practitioner outside these will have in their practice patients who are suffering from AIDS or who are seropositive.

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. In the Eurosentinel project sentinel station networks from various European countries are simultaneously registering a number of data that relate to the anxiety among the population about AIDS, insofar as this leads to a visit to a general practitioner.

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 topic will appear on the weekly return for several years.

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 the 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[17] (M. Moons and L. Peters, Netherlands Institute of Primary Health Care).

Table 28 lists the number of consultations in which AIDS comes up for discussion, by province and degree of urbanization and for the Netherlands, per 10 000 inhabitants, 1988-1995.

Table 28: Numbers of consultations in which AIDS comes up for discussion, by province and degree of urbanization and for the Netherlands, per 10 000 inhabitants, 1988-1995

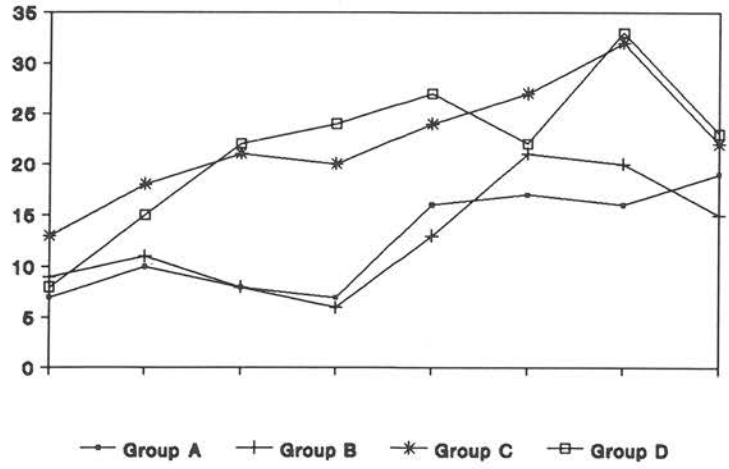
	province group				degree of urbanization			Netherlands
	A	B	C	D	1	2	3	
1988	7	9	13	8	5	8	21	10
1989	10	11	18	15	4	13	27	15
1990	8	8	21	22	4	15	30	16
1991	7	6	20	24	2	15	29	16
1992	16	13	24	27	7	19	35	22
1993	17	21	27	22	11	18	39	23
1994	16	20	32	33	8	22	50	27
1995	20	15	23	24	9	18	37	21

Initially, the number of consultations about AIDS was constant for several years. From 1992 onwards an increase occurs, which also continued untill in 1994. In 1995 a large fall ocars. The number of consultations about AIDS is also folling considerathy in the cities. However, the GPs in the cities clearly have more consultations in which AIDS is discussed than elsewhere (see Figure 20).
From the supplementary data it emerges 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 1995 this number fell to 242 requests for a test.
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 1995 this number also fell: to 230. In a small number of these cases the GP himself or

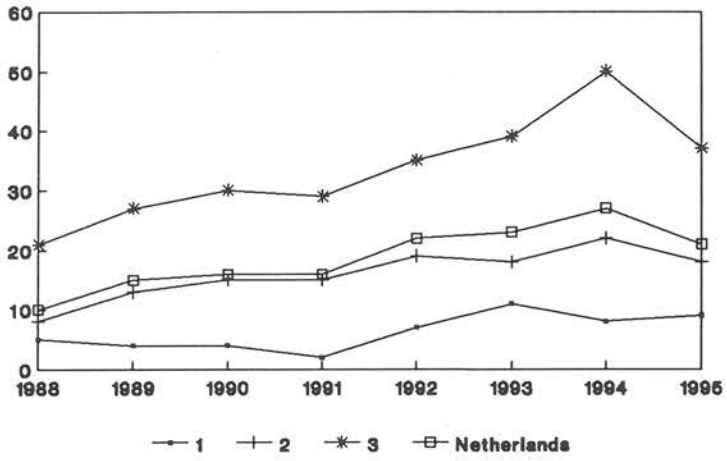
herself takes the initiative for making a test.
The decline in the number of consultations for AIDS is the most pronounced in the western and southern provinces, where in 1994 the number were the highest. In the northern provinces there was a slight increase in the number of consultations in 1995.

Figure 20: Number of consultations in which AIDS comes up for discussion, per province and degree of urbanization and for the Netherlands, per 10 000 inhabitants, 1988-1995

province group



degree of urbanization and Netherlands



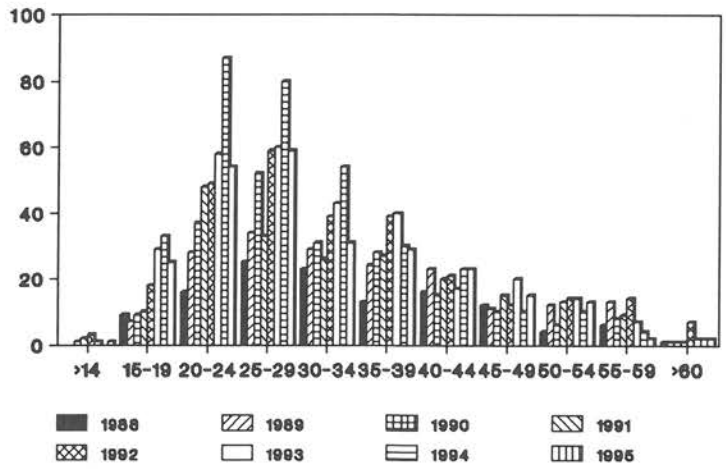
Age distribution

Table 29 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. 21).

Table 29: number of consultations in which AIDS comes up for discussion per age group, per 10 000 inhabitants, 1988-1995

Age group	1988	1989	1990	1991	1992	1993	1994	1995
< 14	-	-	(1)	(2)	(3)	(1)	-	(1)
15-19	9	7	9	10	18	29	33	26
20-24	16	28	37	48	49	58	87	57
25-29	25	34	52	33	59	59	80	61
30-34	23	29	31	26	39	41	54	32
35-39	13	24	28	27	39	41	30	30
40-44	16	23	15	20	21	17	23	24
45-49	12	11	10	15	12	19	10	15
50-54	(4)	12	(6)	13	14	13	10	13
55-59	6	13	8	9	14	6	4	2
> 60	(1)	(1)	(1)	(1)	7	(2)	(2)	(2)

Figure 21: Number of consultations in which AIDS comes up for discussion per age group, per 10 000 inhabitants, 1988-1995



The majority of the questions about AIDS put to the GP are asked in the 20-49 age group. The annual report of the AIDS info line for 1988-1990 likewise gives a high percentage; about 70% of those ringing this line are between 20 and 50 years.[18] In the sentinel station registration 89% of the persons who come to talk about AIDS are between 20 and 50. 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 to increased. In 1995 a sharp fall occurred precisely with this age group.

The topic has been maintained on the weekly return for 1996. Registration under Eurosentinel is also being continued for 1996.

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

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.

Between 1990 and 1994 the sentinel networks of general practitioners, collaborating in the project, registered on a weekly basis the prescription of HIV-antibody tests. The number of networks providing data increased from six in 1990 to nine in 1994. Along with the prescripti-

on of the HIV tests were recorded: the initiator of the prescription, patients' characteristics such as age, sex and main risk factor, reasons for testing and outcome of the HIV test. The registration covered an estimated total of 4000 GP-working years. This resulted in the collection of data concerning 36,467 HIV test prescriptions.

Analysis of the data revealed that in the areas covered by the sentinel networks very distinct patterns exist in the prescription of HIV tests and that these patterns show important evolutions over time. It was found that the number of prescribed HIV tests/GP/year is a valuable indicator for monitoring these patterns. The number of prescriptions/GP/year ranged from 1 (Spain) to 17 prescriptions/GP/year (France). In the Netherlands the number of prescribed HIV Tests more than doubled between 1990 and 1994, whereas in Switzerland a decrease in the number of prescriptions was observed.

Although the number of prescribed HIV tests/GP/year is a valuable indicator, one needs to study the distinct patterns in more detail both geographically and over time. It was found that important differences exist in the initiator of the HIV test prescriptions, the characteristics of the patients and in reasons for testing. In the Netherlands more than 90% of all HIV test prescriptions is initiated by the patients, in Portugal this is only 35%. In Switzerland 60% of all prescriptions involved men, in Portugal the same figure is found for women. In Belgium approx. 30% of all prescriptions related to patients older than forty. In Spain and Portugal 60 to 70% of the prescriptions concern patients younger than thirty. The presence of a risk factor for being infected with HIV was highest in the Netherlands (about 80%) and lowest in France and Portugal. In Spain the use of intravenous drugs is the most important reason for testing; in France most HIV tests are prescribed for patients getting married, in Belgium and the Netherlands 'heterosexual behaviour risk' is the most frequent reason for prescribing an HIV test.

From this heterogeneity it was possible to identify several factors determinative for the prescription of HIV tests. It was found that mass media, AIDS-prevention campaigns, public health policy, both the GP's 'and the patients' attitude towards HIV testing, the epidemiological conditions of the AIDS epidemic and legal and administrative measures were all important single factors influencing how, when and why HIV tests are prescribed in a given context and period of time.

An important finding in some networks was the steadily increasing number of patients who had been tested for HIV at least once before. Together with the growing numbers of HIV tests initiated by the patient these are indications of the fast-changing attitude of the general public towards the HIV test whereby having passed an HIV test is, inappropriately, seen as a preventive measure.

The finding about the patterns of how HIV tests are prescribed in general raised some new questions. (1) Are consultations during which an HIV test is prescribed only a fraction of all AIDS-related consultations in general practice? (2) How do HIV testing and counselling or AIDS prevention go together? In order to answer these questions the registration was extended to all AIDS-related consultations in general practice in 1994. Additionally to initiator, patients' characteristics and reasons for consulting it was recorded what actions were taken by the GP and which AIDS-related items were discussed.

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

General practitioners are regarded as well placed to help prevent the transmission of HIV infection. In 1988 a study was started in the Netherlands to gain more information on concern about AIDS among the non-infected population and on the general practitioner's role in providing advice and health education about AIDS. In this paper we present the results after five years (April 1988-April 1993).

MOONS, M.A.W., L. PETERS
General practitioners and questions about AIDS:
Anxiety and fear of non-seropositive patients in the period 1988-1993.
NIVEL, May 1994, Utrecht (CMR-Sentinel Stations the Netherlands)

The registration project 'General Practitioners and questions about AIDS' has been set up so as to gain a picture of the GP's role with regard to the prevention and provision of information on AIDS. Since 1988 the Continuous Morbidity Registration, the Netherlands, a national network of general practitioners (about 45 practices, 62 GPs) has collected data on physician-patient contact s in which anxiety or questions about AIDS are discussed. Only the contacts with patients of whom no seropositive status is known are included in the registration. After a contact of this kind the GPs have registered a number of data on the patient, on what has been discussed during the contact and on the actions taken by them. In this report the data on 5 years' registration are presented.

It emerges from the data that a GP in the Netherlands has on average been involved with 17 contacts in which the subject of AIDS has been discussed per 10 000 patients per year. Extrapolation of this number to the total Dutch population yields a total number of AIDS-related contacts per practice per year of 26 000. Starting from a standard practice of 2350 patients, this amounts to 4 AIDS-related contacts per practice per year. As regards the finding that the GP is confronted to only a limited extent with questions about AIDS, it must be remarked that the differences between the numbers of AIDS-related contacts per practice are fairly large and that over the period 1988-1993 there has been a significant growth in the number of contacts: from 3.4 to 5.7 contacts per year for a standard practice. The developments in rural municipalities diverge from this: the number of contacts (calculated for a standard practice) has declined in these municipalities from 2.8 in the first year of registration to 1.8 in the fifth year.

When the content of the contacts is examined, it proves that the HIV antibodies are an important subject of discussion: among two-thirds of the contacts a request for a test is discussed and in the majority (85%) of the cases an appointment for a test is also made. The number of requests for a test and the number of appointments proves to have undergone the same growth over the period 1988-1993 as the number of AIDS-related contacts: the HIV antibodies test has come to occupy a more important place during the contacts. In addition to the HIV antibodies test, and often in combination with it, during the contacts between physician and patient possible risks of sexual contacts are also discussed. Many patients want to discuss with the GP **whether** there is a question of unsafe conduct and a risk run. Patients also come to the GP (a third of the contacts) with questions about physical com-

plaints or symptoms of AIDS. Only a limited part of these complaints is considered alarming by the GP as well. In contacts in which complaints are discussed a test is requested much less. Patients who worry about complaints often pay a further visit to the GP. Very trivial questions about AIDS or risks of infection prove barely to be asked of the GP.
In prevention and information with regard to AIDS the GP proves to follow a pragmatic approach: the GP above all takes the initiative to bring up the matter of AIDS when the GP spots complaints that could possibly point in the direction of an HIV infection. In 89% of the contacts the patient takes the initiative in asking questions or discussing anxiety about AIDS.

The general and target-group-specific information campaigns via the media cannot supply an answer to all individual questions and uncertainty about AIDS and make people also precisely aware of risks of being infected with HIV. The GP proves for the questions and anxiety of the individual patient to play a clearly supplementary role to this general information. This emerges not only from the subjects that are discussed during the contacts but also from the fact that after some ten years of information campaigns the number of contacts with the GP in which AIDS is discussed is displaying a growth.
With alertness, frankness and extra attention by the GP to this side of the AIDS epidemic the role of the GP in the field of prevention and information could gain further in importance.

LIVER, GALL BLADDER AND PANCREAS DISEASE

The degree of occurrence of liver, gall bladder and pancreas disease is of importance to both the curative sector of health care and to policy. For specific prevention and information insight into the occurrence of these diseases is desired.

The ideal situation is when a population study can be made into the occurrence of a disease. However, before such an expensive project is set up, it is useful to utilize existing sources of information.
The Liver Epidemiology Working Group Groningen for this reason asked the CMR Sentinel Stations also to register diseases of the liver, gall bladder and pancreas in 1995.

The spotter physician is asked to report on the weekly return each patient with a liver, gall bladder or pancreas disease.
In a supplementary questionnaire data are sought on the length of time that the disease is known, on the nature of the disease, on the way in which the diagnosis has been made and by whom (GP or specialist), and who (GP, pediatrician or internist) is treating the patient.
The results of this supplementary study are being reported elsewhere.

Table 30 gives the data on the numbers of reports of liver, gall bladder and pancreas disease per province group and degree of urbanization and for the Netherlands. No distinction is being made here by the nature of the disease or the organ involved.

Table 30: Number of patients with a liver, gall bladder or pancreas disease per province group and by degree of urbanization and for the Netherlands per 10 000 men and 10 000 women in 1995

		province group				degree of urbanization			Nether-lands
		A	B	C	D	1	2	3	
1995	men	9	19	22	36	19	23	23	22
1995	women	7	25	28	30	35	20	32	24
1995	total	8	22	25	33	26	21	28	23

For the Netherlands as many women as men were reported in 1995 with a liver, gall bladder or pancreas disease (22 per 10 000 men and 24 per 10 000 women respectively).
The highest number of patients was reported in the southern province group: 33 per 10 000 inhabitants. In the northern provinces the number of reports amounts to only 8 per 10 000 inhabitants.
The degree of urbanization of the place of residence of the reported patients is of less influence on the occurrence of liver, gall bladder and pancreas disease.

Age distribution
Table 31 shows the age-specific distribution of the reports of liver, gall bladder and pancreas disease.

Table 31: Number of patients by age group with a liver, gall bladder or pancreas disease

age group	men	women
< 1	0	0
1- 4	(3)	(6)
5- 9	16	(5)
10-14	(2)	(10)
15-19	19	(9)
20-24	(7)	(3)
25-29	8	11
30-34	18	8
35-39	14	22
40-44	13	25
45-49	43	22
50-54	47	69
55-59	20	24
60-64	36	63
65-69	41	46
70-74	82	44
75-79	65	82
80-84	58	57
≥ 85	(35)	(30)

At a younger age, below 25 years, liver, gall bladder and pancreas disease occurs little. The supplementary data show that at younger age the disease is in by far the majority of cases of an infectious nature.
Among women the occurrence of liver, gall bladder and pancreas disease rises from the 50th year. For men this is the case from the 45th year. The highest number of patients are reported at a greater age: for women in the 75-79 age group (82 per 10 000 women). For men this is the case in the 70-74 age group (82 per 10 000 men).

Distribution by nature of the disease

In total 315 patients with an existing or recent liver, gall bladder or pancreas disease have been reported by the spotter physicians. On the strength of the supplementary data a distinction can be made by the nature of the disease. For 55% of these patients the complaints were reported for the first time in 1995; that is to say, the patients were not familiar with a disease of the liver, gall bladder or pancreas. The number of patients with complaints occurring for the first time in 1995 varies per quarter from 36 to 53.
In nearly half of the reports (49%) gallstones are involved, which do or do not

give rise to inflammation reactions and/or disturbances of the liver function. Disturbances of the liver function on the basis of alcohol abuse are reported for 18% of the patients. Recent, but also old infections of the liver by viruses occur in 20% of the reports; mononucleosis infectiosa and other viral liver inflammations are included among these.
All forms of cancer, including metastases in the liver, are responsible for 9% of the reports. In 3% of the reports rare liver diseases are mentioned, but also the side-effects of medicines (including the birth control pill). On 1% of the forms information is absent about the possible cause or this is unknown.

The topic is maintained on the weekly return in 1996.

Viral hepatitis (part of liver, gall bladder and pancreas disease)
Every viral hepatitis can proceed asymptomatically or subclinically. With the hepatitis A virus this percentage is estimated at 50%; with hepatitis B and C this is probably lower. These non-diagnosed patients are however, infectious at any moment.

Hepatitis A and B occur scattered throughout the world. In the Netherlands hepatitis A was in the past a disease of schoolchildren. Under the influence of improved hygiene the incidence among children has declined sharply in the last 20 years. The prevalence of anti-HAV antibodies is lower in the younger age groups than among older people: about 20% of the 20-year-olds have antibodies against the hepatitis A virus and some 50% of the 50-year-olds.
The chance of epidemics is increasing through the low degree of protection and increasing contacts with (sub)tropical countries.

Nobody in the Netherlands will come into quick contact with the hepatitis B virus. Estimates of the prevalence of antibodies against the hepatitis B virus in the western world vary from 3 to 10%.
Worldwide, millions of people are asymptomatic carriers of the hepatitis B virus. The virus is parenterally transmitted, notably via the blood. Sexual contact and the common use of infected needles form the principal transmission routes in the Netherlands. In health care transmission, above all via accidents with injections, is a real risk.

Viral hepatitis is a notifiable disease. In 1994 978 cases of hepatitis A were notified; in 1995 992. Hepatitis B is of less frequent occurrence: in 1994 213

notifications and in 1955 233. Under-notification of these disorders is a problem.

In 1995 the spotter physicians were asked to report each case of infectious hepatitis diagnosed by him or her as part of the topic liver, gall bladder and pancreas disease. They were asked to make a distinction between hepatitis A, hepatitis B and other forms.
Serological confirmation of the diagnosis is nearly always necessary for this.

Table 32 gives the numbers of reported patients with hepatitis A, hepatitis B and other forms of hepatitis for the Netherlands per 10 000 inhabitants.

Table 32: Number of cases of hepatitis A, hepatitis B and other forms of hepatitis for the Netherlands, per 10 000 inhabitants in 1994-1995

	Netherlands	
	1994	1995
hepatitis A	1.4	1.6
hepatitis B	0.6	0.2
others forms	1.1	0.4

Viral hepatitis occurs in the whole country to a limited extent. Most cases are reported in the western provinces.

The incidence of the viral hepatitides found in the registration by the spotter physicians is higher than the incidence calculated on the basis of the notified cases (at the end of 1995).
For hepatitis A the GHI incidence is 0.64 per 10 000; the CMR Sentinel Stations registers 1.6 per 10 000.
For hepatitis B the GHI incidence is 0.15 per 10 000; the CMR Sentinel Stations registers 0.2 per 10 000.

However, statements such as the above must be interpreted with caution. The absolute number of reports is low in 1995, as in 1994: for hepatitis A 23 reports, for hepatitis B 2 reports and for the other forms 5 reports.

In 1996 too the registration of viral hepatitis is included in the topic liver, gall bladder and pancreas disease.

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. 10-11) 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 'cervical smear'; 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.[19]
With regard, too, to 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, 1986-1995 (Central Bureau of Statistics)*

year	men	women	total
1986	7 184	7 345	14 529
1987	7 224	7 391	14 615
1988	7 273	7 441	14 714
1989	7 317	7 488	14 805
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

* 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	1986			630			915 000
	1987			365			533 000
	1988			399			591 000
	1989			410			607 000
	1990			225			335 000
	1991			348			522 000
	1992			244			370 000
	1993			484			772 500
	1994			106			162 500
	1995			315			480 000
cervical smear	1986		65			48 000	
-with complaints	1987		59			43 500	
and/or symptoms	1988		76			56 500	
	1989		72			54 000	
	1990		55			41 500	
	1991		73			55 500	
	1992		72			55 500	
	1993		70			55 500	
	1994		60			46 500	
	1995		59			46 000	
-preventive	1986		398			293 000	
	1987		345			255 000	
	1988		369			274 000	
	1989		521			389 500	
	1990		577			434 500	
	1991		537			407 000	
	1992		524			400 000	
	1993		485			370 500	
	1994		474			367 500	
	1995		467			364 000	

* see page 102

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***
-repeat examination (within 3 years)	1986		170			125 000	
	1987		211			156 000	
	1988		246			183 000	
	1989		237			177 000	
	1990		273			205 000	
	1991		239			181 500	
	1992		233			178 000	
	1993		225			173 000	
	1994		268			208 000	
	1995		267			208 000	
cervical smear total	1986		633			465 000	
	1987		615			455 000	
	1988		691			514 000	
	1989		830			622 000	
	1990		905			682 000	
	1991		857			645 000	
	1992		829			632 500	
	1993		780			599 500	
	1994		802			622 000	
	1995		793			618 000	
sterilization	1986	45	29		32 500	21 500	54 000
	1987	45	28		32 500	20 500	53 000
	1988	40	22		29 500	16 500	46 000
	1989	30	19		22 000	14 000	36 000
	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
cumulative					820 000[1]	622 000[2]	

* see page 102

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) suicide	1986			7			10 600
	1987			7			10 250
	1988			6			9 000
	1989			7			10 250
	1990			5			7 500
	1991			5			7 500
	1992			6			9 000
	1993			6			9 000
	1994			5			7 500
	1995			7			10 750
first mammograms	1988		80			59 500	
	1989		87			65 000	
	1990		92			69 000	
	1991		105			80 000	
	1992		92			75 500	
	1993		117			88 500	
	1994		111			86 000	
	1995		104			81 000	
repeat mammo-grams	1988		12			9 000	
	1989		15			11 000	
	1990		17			13 000	
	1991		26			19 500	
	1992		30			23 000	
	1993		59			21 000	
	1994		45			35 000	
	1995		39			30 500	
mammograms total	1988		92			68 500	
	1989		102			76 000	
	1990		109			82 000	
	1991		131			99 500	
	1992		122			93 500	
	1993		176			109 500	
	1994		156			121 000	
	1995		143			111 000	

* see page 102

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***
P.I.D.	1993		7			5 500	
	1994		9			7 000	
	1995		8			6 200	
urethritis	1992	31			23 000		
of the man	1993	23			17 500		
	1994	24			18 500		
	1995	26			20 000		
concern about	1988			10			15 000
aids	1989			15			22 000
	1990			16			24 000
	1991			16			24 000
	1992			22			33 500
	1993			23			35 000
	1994			27			41 500
	1995			21			32 000
liver-, gall bladder and pancreas disease (incidental and prevalent)	1995	22	24	23	17 000	19 000	36 000
hepatitis A	1994			1.4			2 200
	1995			1.6			2 500
hepatitis B	1994			0.6			1 000
	1995			0.2			300
other hepatitis	1994			1.1			1 700
	1995			0.4			600

* 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.

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 1995 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'[20].
The results per patient can be found at the end of this section.
This table does not require much explanation.
In 1995 the number of requests was 35. Of the patients making a request for application of euthanasia, 83% have a malignity.
The number of patients nursed at home is 32; two patients live in a nursing home. The whereabouts of one patient are unknown.

In 29 cases the request was supported by a written 'euthanasia declaration'. Requests for euthanasia were made by 34 patients; ten patients likewise asked for assistance with suicide. One patient asked only for assistance with suicide. In 22 of the 35 requests the general practitioner consulted another physician. In the case of a number of reports whereby no other physician was consulted, it is indicated that the patient already died naturally before the

possible application of euthanasia.
It also happened that no other physician was consulted because that had not yet come up for discussion.

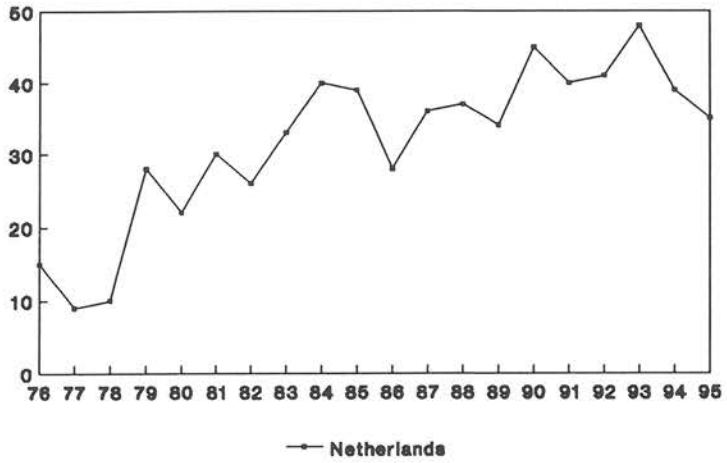
Requests for application of euthanasia 1976-1995.

The distribution of the number of requests per province and degree of urbanization and per sex may be found in Table 33 (cf. Fig. 22).

Table 33: 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 1976-1995

absolute	M	F	province group				degree of urbanization			Netherlands
			A	B	C	D	1	2	3	
1976	5	10	1	2	11	1	4	7	4	15
1977	6	3	1	2	5	1	3	2	4	9
1978	6	4	3	2	4	1	2	8	-	10
1979	13	15	5	6	15	2	4	18	6	28
1980	10	12	2	3	16	1	3	12	7	22
1981	20	10	4	4	13	9	3	20	7	30
1982	17	9	2	6	17	1	3	7	16	26
1983	15	18	7	4	19	3	5	14	14	33
1984	24	16	5	2	25	8	3	24	13	40
1985	19	20	3	6	25	5	1	24	14	39
1986	14	14	3	5	16	4	3	15	10	28
1987	19	17	1	8	22	5	3	17	16	36
1988	19	18	3	1	22	11	1	23	13	37
1989	21	13	7	1	21	5	6	17	11	34
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

Figure 22: Absolute number of patients who requested the general practitioner for the application of active euthanasia or assistance with suicide, for the Netherlands, 1976-1995



Over the whole period 1976-1995 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 34 and Table 35.

Table 34: average number of requests per sentinel station by province group 1976-1995*

	province group			
	A	B	C	D
number of sentinel stations	6	7	16	10
average number of requests	13,5	11,5	18,5	10,5
scatter	0 - 29	3 - 34	0 - 40	2 - 23

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

Table 35: average number of requests per sentinel station by degree of urbanization 1976-1995*

	degree of urbanization		
	1	2	3
number of sentinel stations	6	20	13
average number of requests	11	12	19
scatter	3 - 24	0 - 29	2 - 40

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

These data show 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 36.

Table 36: absolute number of patients who requested the general practitioner for application of active euthanasia or assistance with suicide by age group, 1976-1995

	≤54	55-64	65-74	75-84	≥85	total
1976	2	4	3	3	3	15
1977	2	3	2	2	-	9
1978	3	2	3	2	-	10
1979	3	7	12	2	4	28
1980	2	5	5	7	3	22
1981	8	4	5	10	3	30
1982	-	6	10	8	2	26
1983	3	10	9	9	2	33
1984	5	13	9	10	3	40
1985	8	8	9	11	3	39
1986	7	3	12	3	3	28
1987	6	9	8	9	4	36
1988	6	7	11	10	4	37
1989	4	6	12	11	-	34
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

Survey of the reported requests

In the collection published on the occasion of the twentieth anniversary of the Continuous Morbidity Registration Sentinel Stations the requests reported up to the end of 1987 are described: in total 316 requests.[21]
Meanwhile the data are known on 635 requests for application of euthanasia. Of these requests, 348 were made by a man (55%).

Insight into the disorders for which application of euthanasia is requested has been obtained by using the International Classification of Diseases (1975, 9th revision) 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 37.

Table 37: disorders for which euthanasia was requested, 1976-1995

	n	%
malignant neoplasms	461	73
cardio-vascular disease	42	7
chronic obstructive pulmonary disease	29	4.5
symptoms and incompletely described diseases	34	5.5
other diseases	68	11
total	635	101

The distribution of the disorders for which euthanasia was requested by age is given in Table 38.

Table 38: percentage of requests per disorder of the total number of reports by age (absolute numbers between parentheses), 1976-1995

	≤54 %	55-64 %	65-74 %	75-84 %	≥85 %
malignant disorders	75	90	89	60	19
cardio-vascular disease	0	1	3	13	24
chronic obstructive pulmonary disease	1	4	2	9	10
symptoms and incompletely described diseases	4	2	1	5	32
other diseases	20	4	5	13	15

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

Table 39: percentage of requests for application of euthanasia by patients younger and older than 65 by disorder, 1976-1995 (n=absolute numbers of requests)

	n	≤ 64 %	≥ 65 %
all disorders	635	36	64
all malignancies	462	41	59
cardio-vascular disease	42	2	98
chronic obstructive pulmonary disease	29	17	83
symptoms and incompletely described diseases	34	17	83
other diseases	68	41	59

A further subdivision of the malignancies by localization of the tumour and the age of the patient displays the following picture (Table 40).

Table 40: 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), 1976-1995

	n	≤ 64 %	≥ 65 %
all malignancies	462	41	59
stomach	48	38	62
colon/rectum	65	34	66
trachea/lung	113	37	63
breast	43	56	44
other	164	44	56

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 83% in 1995.

Extrapolation of these data to the Dutch population is possible, but rather pointless. It should be borne closely in mind that one is relating that number to the total population, whereas this should really be done to the number of persons who are in circumstances in which the possibility of asking the

question is envisaged. However, the latter data (morbidity) are not available.

Reguest by the patient for active euthanasia, 1995

age request	sex	disease reported	motive for the request
86	F	decompensatio cordis	no further point
85	M	depression and COPD	depression
82	M	carcinoma of the bronchus	increasing dependence
80	M	carcinoma of the lung	
74	M	carcinoma of the lung	decay
74	F	carcinoma of the colon	
74	F	carcinoma	progressive dyspnoea
72	F	carcinoma of the gall bladder, liver metastases	fear of suffering
71	M	metastasized carcinoma of the lung	unbearable pain
71	F	carcinoma of the stomach	intolerable pain, vomiting
69	M	metastasized carcinoma of the colon	lever metastases
69	M	carcinoma of the colon	fear of pain, suffering
67	M	carcinoma of the lung	decay
67	F	metastasized carcinoma of the lung	
67	F	metastasized carcinoma of the lung	decay, dyspnoea
65	M	carcinoma of the lung	unworthy, decay
63	F	carcinoma of the mamma	fear of agony
61	M	carcinoma of the pancreas	ileus, faecal, vomiting
59	M	liposarcoma of the abdomen	threatening ileus/pain
59	M	carcinoma of the lung with metastases	decay as result of cerebral metastases
58	M	carcinoma of the lung	decay, disturbed swallowing
51	M	carcinoma of the lung	dyspnoea
50	F	carcinoma of the lung	preterminal
49	F	mesothelioma	terminal stage
46	M	AIDS	final phase of AIDS
46	F	carcinoma of the stomach	vomiting, lacklustre, terminal state
44	F	incurable depressive state	
42	M	brain tumour	dependence, lacklustre
42	F	carcinoma of the cervix	hopeless suffering
38	M	AIDS	
38	F	metastasized carcinoma of the mamma	treatment ended

Request by the patient for active euthanasia, 1995 (continuation)

age request	sex	disease reported	motive for the request
34	M	astrocytoma	relapseage
31	M	carcinoma of the lung	pain
18	M	cystic fibrosis	untreatable decompensatio cordis
4	F	acute blasten leukemia	untreatable terminal stage

The investigation is being continued in 1996.

SUSPICION OF ACUTE INTOXICATION IN THE WORK SITUATION

The increasing use of chemical substances and the enormous diversity of chemicals have led to an increase in the risk of accidents involving a chemical substance. Whether this has actually resulted in an increase in the number of cases of acute intoxication in the Netherlands is, however, not known.
Accidents with chemicals may occur in the private sphere. Children too can come into contact with toxic substances.
The greatest risk with chemical agents is run by workers who have to work with these substances. There is no proper understanding of the nature of these accidents and the distribution among the various branches of industry.

The Reanimation and Toxicology Department of the Medical Faculty of Utrecht, in cooperation with the National Poisonings Information Centre of the National Institute for Public Health and the Environment, started a project in 1994 in which a method will be developed for optimum registration of cases of suspected acute intoxication in the work situation in the Netherlands.
Three sources of registration have been selected for a pilot study:

- firms with their registering bodies
- GPs (spread over the Netherlands)
- first-aid departments of hospitals.

At the end of 1995 the spotter physicians were asked to report the cases of suspected acute intoxication in the work situation for which they were consulted in 1995.

Suspected intoxication in the work situation means the occurrence of symptoms after an accident that has happened during the performance of paid work (self-employed or in paid employment) and in which a single or intermittent short-term exposure to a high concentration or dose of chemical substances has taken place.

In 1995 one report was made.
A patient inhaled chlorine that was released during transhipment.
On account of difficulty with breathing the patient was admitted to hospital for observation by a lung specialist. The patient had a sickness absence of more than three days.

This incidental investigation will not be continued.

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, but after an introduction to it at the beginning of 1995 (see p. 4) at the end of 1995 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 1995 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 41 presents 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.

Table 41: 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 and the numbers per 10 000 women

	province group				degree of urbanization			Nether-lands
	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
per 10 000 women 1995	4.6	3.2	4.1	4.6	2.4	4.8	3.1	4.1

Eating disorders are reported somewhat less in the eastern provinces than in the rest of the country.
Most reports come from the medium-sized places and towns.

In Table 42 the distribution of the eating disorders by age group follows.

Table 42: Absolute number of reports of patients regarding whom the GP has diagnosed an eating disorder, by age for 1985-1989 and for 1995

women	1985-1989 aver.	1995
10-14	1	1
15-19	8	13
20-24	12	14
25-29	14	10
30-34	6	9
35-39	7	8
40-44	4	2
45-49	1	4
50-54	1	2
55-59	1	-

In 1995 2 men were reported with an eating disorder, aged 27 and 32 years respectively.

In 1996 too an incidental investigation into eating disorders will be held.

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

GENERAL REMARKS

1. The weekly return for 1996 has been compiled as follows by the Counselling Committee.

   a. Influenza(-like illness);
   b. Cervical smear;
   c. Liver, gall bladder and pancreas disease;
   d. Chronic benign pain disturbance;
   e. Sterilization of the man performed;
   f. Sterilization of the woman performed;
   g. Oestrogens prescribed;
   h. (Attempted) suicide;
   i. Out-patient or clinical mammography;
   j. P.I.D. (pelvic inflammatory disease);
   k. Urethritis of the man;
   l. Concern about AIDS.
   m. Physical violence
   n. Gastro-enteritis

2. The incidental investigations for 1996 relate to the subjects euthanasia and eating disorders.

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

Survey as per 1 January 1996 (from 1 January 1990)

CASTEREN, V. van, DECLERCQ, E, et al Study of the use of some selected groups of laboratory tests in general practice Brussel: Eurosentinel, Instituut voor Hygiëne en Epidemiologie, 1991

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

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

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

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.

FROOM, J., L. CULPEPPER, P. GROB.

Diagnosis and antibiotic treatment of acute otitis media: report from International Primary Care Network;

British Medical Journal; vol. 300, 1990, p. 582-586

Study objective-The relation between a history of disorders suggestive of acute otitis media, symptoms, and findings of an examination of the tympanic membrane and doctors' certainty of diagnosis. Also, to examine differences in prescribing habits for acute otitis media among doctors from different countries.

Design-Questionnaires were completed by participating doctors for a maximum of 15 consecutive patients presenting with presumed acute otitis media.

Setting-General practices in Australia, Belgium, Great Britain, Israel, The Netherlands, New Zealand, Canada, Switzerland, and the United States.

Patients-3660 Children divided into the three age groups 0-12 months, 13-30 months, and >31 months.

Main outcome measures-General practitioners' responses to questions on their diagnostics certainty and resolution of patients' symptoms after two months.

Results-The diagnostic certainty in patients aged 0-12 months was 58.0%. This increased to 66.0% in those aged 13-30 months and 73.3% in those aged >31 months. In all age groups diagnostic certainty was positively associated with the finding of a tympanic membrane that was discharging pus or bulging. Redness of the membrane and pain were also associated with certainty in patients aged 13-30 months, and a history of decreased hearing or recent upper respiratory infection was positively associated in patients aged >31 months. The proportion of patients prescribed antibiotics varied greatly among the countries, from 31.2% in The Netherlands to 98.2% in both Australia and New Zealand, as did the duration of treatment. Patients who did not take antibiotics had a higher rate of recovery than those who did; rate of recovery did not differ between different types of antibiotic.

Conclusion-Doctors' certainty of diagnosis of acute otitis media was linked to patient's age. Improved criteria or techniques for diagnosing acute otitis media, especially in very young children, need to be developed. Antibiotic treatment did not improve the rate recovery of patients in this study.

FROOM, J., L. CULPEPPER.

Otitis Media in Day-Care Children.

A Report From the International Primary Care Network. Journal of Family Practice, Vol 32, no. 3 1991 p. 289-294

The relationship between day care and acute otitis media and its adverse consequences was analyzed as part of a collaborative multinational study. Data from primary care research networks in eight countries were collected on 1335 children, aged 0 to 60 months, at the time of initial visits to their primary care physicians for acute otitis media. A history of recurrent acute otitis media, poor hearing, and tonsillectomy or adenoidectomy were all more evident in day-care children aged 25 to 60 months, compared with those cared for at home. Day-care children were brought to their physicians more promptly after the onset of symptoms and received more referrals to the otolaryngologist at the time of the index visit for acute otitis media. Day care may pose a significant risk for otitis media and its adverse consequences.

CULPEPPER, L., J. FROOM,

Acute Otitis Media in Adults.

Journal of the American Board of Family Practice, 1993.

Background: Of 22 million visits annually to United States physicians for acute otitis media (AOM), almost 4 million are by patients 15 years or older. Yet the clinical spectrum and variables related to recovery have not been reported for adults.

Method: Data originated from 3,224 primary care patients with AOM, of whom 500 were 15 years and older, enrolled in a prospective study in eight countries. At initial visit, past history, symptoms, physical findings, and treatment were recorded. Follow-up at two months identified changes in treatment and recovery.

Results: Compared with children, adults sought care more quickly after symptoms onset, were more likely to have a tonsillectomy and/or adenoidectomy, and to complain of ear pain, decreased hearing, sore throat, and ear discharge. Children were more likely to have a history of recent upper respiratory infection, serous otitis, and ear tubes; symptoms of fever, diarrhoea and vomiting; and tympanic membrane (TM) findings of redness, bulging, and ear tubes in place.

History of reduced hearing, allergy, prophylactic antibiotics, and TM findings characterized as opaque or dull, fluid, draining pus, perforation, and not visualized were equally frequent in both age groups. For adults, neither type nor duration of antibiotic affected outcome. Patients receiving antibiotics had lower rates of recovery than those who did not. The likelihood of a poor outcome increased with an increasing number of past episodes of OAM and with increasing age.

Conclusion: Although past history and symptoms differ in adults and children, the similarity of TM findings probably indicates similar pathophysiological mechanisme in both groups. Recovery is more related to individual patient characteristics and past history than to antibiotic therapy.

DEKKER, J., J.M. DRIESSEN, H. STUMPEL et al.
Referrals by general practitioners to speech therapists
Huisarts en Wetenschap; 35, 1992, No. 11, p. 425-427

For two years the participants in the Continuous Medical Registration the Netherlands kept a record of the patients who were referred to the speech therapist, for which disorders this happened and which persons had been the first to point out that referral was called for. On average 1.7 per 1000 patients were referred per year; however, there was a great interdoctor variation. A minority (38 percent) of the patients were identified by the general practitioner, the patients themselves or parents/guardians. The majority were identified by the school doctor, the school advisory service, other speech therapists, teaching staff or others. General practitioners identified above all voice/respiratory disorders. Language disorders were identified above all by school advisory and speech therapy services; patients themselves and general practitioners played a less great role in identifying these disorders. Stuttering was identified above all by patients themselves and by parents/guardians, less by school advisory services.

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

General practitioners using DSM-III criteria have studied the incidence and prevalence of anorexia nervosa and bulimia nervosa in a large (N=151,781) representative sample of the Dutch population. The incidence rate for anorexia nervosa is 6.3 and for bulimia nervosa 9.9 per year per 100 000 population. The prevalence of bulimia nervosa is three times higher in larger cities than in smaller urbanized or rural areas, while anorexia nervosa is found with almost equal frequency in areas with a different degree of urbanization.

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

From 1985-1989 general practitioners using DSM-III criteria studied the incidence of anorexia nervosa and bulimia nervosa in a large (N=151,781) representative sample of the Dutch population. The first results (prevalence at 1-1-1985 and the incidence 1985-1986) have been published recently (Hoek, Psychological Medicine, 1991, 21, 455-460).
During 1985-1989 the mean incidence of anorexia nervosa was 8.1 per year per 100 000 population and 11.4 for bulimia nervosa. The period 1987-1989 shows an increase of the incidence rates compared to 1985-1986, which will be discussed.
The prevalence of bulimia nervosa is four times higher in larger cities than in rural areas. Anorexia nervosa is found about equally frequently in areas with a different degree of urbanization. The question will be discussed, whether there is a causal relation between degree of urbanization and bulimia nervosa. There seems more evidence for a causal theory than a drift hypothesis, which has been put forward before (Hoek, 1991). Possible causal factors may be more social control in rural areas and more provoking stimuli in cities.

KERSSENS, J.J., P.P. GROENEWEGEN.

Referrals to physiotherapy: the relation between the number of referrals and the inclination to refer.

Social Science Medicine; 30, 1990, no. 7, p. 797-804

This article studies the relation between the referral rate and the type of patients general practitioners refer for physiotherapy. The study population consists of GP's participating in the Netherlands Sentinel Stations Network who recorded data on all referrals to physiotherapy during one year and filled in a questionnaire. Results show that the pattern of referral indications of high referring GP's does not differ systematically from that of low referring GP's. High referring GP's evaluate their patients complaints more as purely or mainly somatic. High referring GP's were no more inclined to give in to their patients demands, had busier practices, closer relations with physiotherapists and viewed their knowledge of physiotherapy as more satisfactory than low referring GP's. Some policy implications are discussed in respect to these results.

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 haermorrhage.

The Lancet 1994; 344: 590-593.

Retrospective surveys of patients with subarachnoid haemorrhage suggest that minor episodes with sudden headache (warning leaks) may precede rupture of an aneurysm, and that early recognition and surgery might lead to improved outcome. We studied 148 patients with sudden and severe headache (possible sentinel headache) seen by 252 general practitioners in a 5-years period in the Netherlands.

Subarachnoid haemorrhage was the cause in 37 patients (25%) (proven aneurysm in 21, negative angiogram in 6, no angiogram done in 6, sudden headache followed by death in 4). 103 patients had headache as the only symptom, 112 of whom proved to have subarachnoid haemorrhage (6 with a ruptured aneurysm). Previous bouts of sudden headache had occurred in only 2. Other serious neurological conditions were diagnosed in 18. In the remaining 93, no underlying cause of headache was found; follow-up over 1 year showed no subsequent subarachnoid haemorrhage or sudden death. In this cohort, acute, severe headache in general practice indicated a serious neurological disorder in 37% (95% CI 29-45%), and subarachnoid haemorrhage in 25% (18-32%). 12% (5-18%) of those with headache as the only symptom.

The notion of warning leaks as a less serious of subarachnoid haemorrhage is not supported by this study. Early recognition of subarachnoid haemorrhage is important but will probably have only limited impact on the outcome in the general population.

MEER, K. VAN DER, R.J.A. SMITH.

Cerebrovascular accident patients in general practice: an investigation among 1 percent of The Dutch population.

Huisarts en wetenschap; 33, 1990, No. 4, p. 141-144

In 1986 and 1987 general practitioners of the NIVEL sentinel stations registered all new cerebrovascular accident (CVA) patients. Of the 273 patients reported, two thirds were older than 70 years. The total incidence was 1.3 per 1000 inhabitants per year; for the 65-69 age group that was 4 per 1000, and for the >80 group 20 per 1000. The disorder was equally

divided between the sexes. In the first week after the occurrence of the CVA 72 percent of the patients were admitted to hospital; the very old patients in particular were kept at home. The distribution of the patients over the various places of abode was after eight weeks and after one year practically identical: nearly half of the patients were again (or still) at home, 10 percent were in an old people' home and 10 percent in a nursing home. Mortality among the CVA patients was high. In the first week 16% died, half of whom in the first two days. After eight weeks 26% of all CVA patients had died and after a year one third. In the case of 20 percent of the patients a CVA recurred within a year. A quarter of the people were severely infirm within a year.

MEER, K. VAN DER, R.J.A. SMITH.
Transient ischaemic attack patients in general practice: an investigation among 1 percent of the Dutch population.
Huisarts en wetenschap, 33, 1990, No. 5, p. 184-188

In 1986 and 1987 the general practitioners who cooperate with the NIVEL Sentinel Stations project reported 132 patients with a transient ischaemic attack (TIA). The average incidence was 0.7 per 1000 inhabitants per year. Three quarters of the patients were older than 70. In the case of 48 percent speech defects occurred. The general practitioners referred over 40 percent of the patients to a specialist, nearly always a neurologist. Half of the patients were prescribed aspirin. Within one year after the TIA 11 patients had died: 6 of the 30 that had already experienced a TIA before and 5 of 102 new TIA patients. In the case of 11 patients a CVA was reported within one year of the TIA. Of the patients who experienced a first TIA, a TIA recurred and deaths occurred more often in the group that had been referred to the specialist. Evidently general practitioners are well capable of selecting the patients with a greater chance of complications for referral.

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

During the period of January 1988 to December 1989, medically treated burn injuries in the Netherlands were recorded prospectively by three registration systems. These systems cover patients treated in burns units, in general and university hospitals, and by general practitioners. Incidence rates and 95% confidence intervals were calculated, and basic epidemiologic data about severity and localization of the burns and about accident circumstances were collected. The overall incidence rate of medically treated burns over all levels of medical care is estimated to be about 280 per 100 000 persons per year. This overall incidence figure appeared to be about 34 times as high for 0-4 year old children: 775 per 100 000 persons per year. At all levels of medical care, scalds are the most frequent type of burns, resulting in an overall incidence rate among 0-4 year old children of 430 per 100 000 persons per year. Incidence rates are lowest among the elderly (55+), but this age group suffers a higher mortality from burns. Furthermore, it turned out that males are more prone to serious burns than females, whereas females are more often treated for less severe burns. Most of the accident circumstances for serious burns were related to profession, whereas most of the circumstances for less severe burns were related to household activities.

VEER, M. VAN DER, L.M. VAN NOORLE JANSEN, J. NAGEL, G. VAN STEENIS, A.D. PLANTINGA, H.C. RUMKE.

Antistofpatronen in een doorsnee van de Nederlandse Bevolking.

Onderzoek Peilstations in 1980-1985. RIVM, 1993, rapportnummer 927901007.

An age-stratified investigation of antibody levels against diphtheria, tetanus, poliomyelitis, measles and rubella was carried out in 1980 and 1985. This selection of antigens was made because they are relevant to the Dutch National Immunization Programme. A nation-wide network of sentinel physicians collected 798 and 679 sera respectively in 1980 and 1985 from healthy visitors to their office aged between 10 to 65 years and over. The 46 respectively 36 sentinel practices were distributed all over the country in such a way that the collected samples could be considered representative of the Dutch population.

Generally, persons born after 1950-1955 are well protected against the vaccination target diseases. This most likely is the effect of the introduction of the National Immunization Programme in the fifties, with the exception of measles and rubella. The results of the investigation of the serum samples collected in 1985 confirmed the antibody pattern found in the sera collected in 1980.

With regard to tetanus, in all age groups older than 20 years, men are better protected than women. This difference was less pronounced with regard to diphtheria. In the elderly the prevalence of protective antibodies against diphtheria and tetanus was low. Antibodies to tetanus only develop after vaccination. Most of the elderly are not vaccinated against tetanus because in the National Immunization Programme tetanus vaccine was first used in 1953.

No difference in the sexes was found in the protective level of antibodies against poliomyelitis. This may be explained by the fact that vaccination against poliomyelitis in military service started in 1973. Among those born between 1930 and 1950, most of the persons lacking antibodies to poliomyelitis were found. This was true of the three types of poliovirus.

Vaccination against measles was included in the National Immunization programme in 1976. The participants in the present investigation are generally not vaccinated against measles. Thus, the study results were hardly influenced by these vaccinations. Antibodies against measles were shown in almost all the serum samples tested, and are likely to be acquired by natural infection. In total only 13 (1.6%) out of 798 samples were negative in 1980, and 15 (2.2%) out of 679 samples collected in 1985 were negative. It seems that people from the countryside are better protected against measles than those in urban communities. Even in these populations, in general, women are less protected against measles than men. There was no explanation for this phenomenon.

Everybody has antibodies against rubella with poor exceptions in the younger population. Rubella vaccination was incorporated in the National Immunization Programme in 1974. Similar to the situation in measles, its effect can therefore not yet be recognized in the serological responsiveness to rubella.

GOOSEN, E.S.M., A.M.M. HOOGENBOOM-VERDEGAAL, A.I.M. BARTELDS, M.J.W. SPRENGER, M.W. BORGDORFF.

Incidence van gastro-enteritis in huisartsenpeilstations in Nederland, 1992-1993

RIVM, 1995, Rapportnummer 149101012.

In the Netherlands gastro-enteritis is among the ten diseases with the highest incidence rates. A sentinel study on the incidence of gastro-intestinal disordersd and the occurrence of the investigated pathogens (Campylobacter, Salmonella and Shigella) was carried out in about 40 general practices in 1992 and 1993. The sentinel stations were as representative as possible of the Dutch population. The study was undertaken by the National Institute of Public Health and Environmental Protection (RIVM) and the Netherlands Institute of Primary Health Care (NIVEL) in cooperation with the general practitioners who participated in the Dutch Sentinel Practice Network and 24 laboratories. Age and sex of patients who met the case definition were reported to NIVEL. These patients were asked by their GP to provide a stool sample and to complete a questionnaire. The number of patients that were either reported to the NIVEL or have been given a questionnaire by their GP was estimated at about 2370. A completed questionnaire was received from 58.9% (1400/2370) of these patients. Eighty percent (1400/1744) of the cases completed the questionnaire they received. Results of microbiological analysis were obtained for 89.1% (1248/1400) of patients who completed the questionnaire. The crude incidence rate of acute gastro-intestinal complaints was 55.3 per 10,000 person years, after correction for non-response it was 89.9 per 10,000 person years. The incidence was lower in 1993 than in 1992. Between men and women no differences have been found. The highest incidences have been found in the age groups under five. The incidence rate for Campylobacter was 6.9 per 10,000 person years (182 samples positive), for Salmonella 2.2 (55 samples positive) and for Shigella 0.4 per 10,000 person years (10 samples positive). After correction for non-response these incidences were 11.7 and 3.5 and 0.6 per 10,000 person years. The Salmonella incidence rate was higher in 1993 than in 1992 and higher in men than in women. The highest incidence rates for Campylobacter and Salmonnella were found in the age groups under five. The (late) summer months, as expected, showed the highest incidence rates. Incidence rates for gastro-enteritis as well as for microorganisms were lower than incidences found in other sentinels. To follow trends in incidence rates and microorganisms it is necessary to undertake sentinels repeatedly with the same methodology and population. However, results cannot be generalized to the general population and consequently it remains necessary to carry out a population cohort study every 5 to 10 years.

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.

OBJECTIVE: To assess possible changes in the incidence of diabetes in all age-groups in the Netherlands during a 10-year period (1980-1983/1990-1992).

RESEARCH DESIGN AND METHODS: Since 1970, a network of sentinel stations (the Dutch Sentinel Practice Network) consisting of 1% of the Dutch population has been in operation to gain insight into the morbidity patterns of the Dutch population as recorded by general practitioners. One of the items recorded from 1990 to 1992 was the incidence of diabetes. The first study with a similar design that registered the incidence of diabetes was conducted from 1980 to 1983.

RESULTS: The overall incidence of diabetes increased significantly by 12.1% in the period between the two studies. This overall increase can largely be attributed to a statistically significant increase in the age-group 45-64 years (30.5%). although not statistically significant, the 36% increase of diabetes in the age-group 0-19 years is in accordance with the increase of type I diabetes based on the first and second nationwide retrospective studies covering the total Dutch population.

CONCLUSION: There is a marked increase in the incidence of diabetes in the age-group 45-64 years. This selective increase is probably not due to a real rise caused by changes in exposure to risk factors but to an earlier recognition of symptoms and signs of diabetes followed by blood glucose measurements and/or to more intensive case finding in general practice.

Appendix 1

CONTINUOUS MORBIDITY REGISTRATION, SENTINEL STATIONS
Participating General Practitioners in 1995

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 Gysel/Ms. J.Kappert/ Ms. J. Sanders/S.A. van Dijk (group practice)	Assen	Drenthe
H.E. Maillette de Buy Wenniger*)	Schoonoord	Drenthe
H. Nap*)	Gramsbergen	Overijssel
S. Kranenborg	Deventer	Overijssel
Th.J. van Dam/P.P.A. Kemps (group practice)	Swifterbant	Flevoland
E.J. van Apeldoorn	Heerde	Gelderland
D. de long*)	Laren	Gelderland
D.G. de Jong	Barneveld	Gelderland
J.H. de Boer/Mw. I. Bruin-van Ingen/ Mw. M. Burger (group practice)	Zelhem	Gelderland
B.G.W.M. Arts	Nijmegen	Gelderland
M.A.J. Janssen	Nijmegen	Gelderland
W.J.A. Besselink	Doesburg	Gelderland
H.W.M. van der Velden	Dieren	Gelderland
Ms. I.K.I. de Jongh-Killian/F.K.A. Fokkema (group practice)	Amersfoort	Utrecht
P.J. Kromeich/J.J. Dijkstra (group practice)	Utrecht	Utrecht
W.J. van Bodegom*)	Linschoten	Utrecht
M.M. Spoor	Alkmaar	Noord-Holland
A.I.M. Bartelds	Huizen	Noord-Holland
C.W. Willeboordse	Heiloo	Noord-Holland
H.R. Neijs*)	Broek in Waterland	Noord-Holland
D.E. Kuenen	Haarlem	Noord-Holland
Ms. Y.E.V. van Hazel/P. Olie	Amsterdam	Noord-Holland
J.G. Hofstee	Amstelveen	Noord-Holland

Appendix 1 (continuation)

Participating General Practitioners in 1995

Name:	Residence:	Province:
J. Hoornweg/Ms. E. Hoornweg-Sleeboom/		
J. Schinkelshoek (group practice)	Voorhout	Zuid-Holland
A.M. van Meurs	The Hague	Zuid-Holland
R. Kanters	The Hague	Zuid-Holland
J.C.B.M. Rensing	The Hague	Zuid-Holland
D. Pasman	Maassluis	Zuid-Holland
B. Adèr	Rotterdam	Zuid-Holland
G.C.J.M. van Rooy/C.J.J. Kloos/		
P. van Dijk/Ms. B. Hart		
(group practice)	Schiedam	Zuid-Holland
A. Lagendijk	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
S.H.H.M. van der Meer	Rosmalen	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 1995

Proj. no.			verslagjaar		Code peilstat.	Week no.	
4	0	0	9	5			

	Leeftijdsgroep	Influenza (-achtig) ziektebeeld[2])	Cervixuitstrijkje[3]) 1e maal		herhaling		Lever -, galblaas- en pancreasziektes[5])		Chronische benigne pijnstoornis[7])		Sterilisatie verricht[8])		Oestrogenen voorschrift		Suicide(poging)[10])	Mammografie		P.I.D.	Urethritis bij man	C.A.I.D.S.[11]) (concern about AIDS)			
			Klachten/ symptomen	Louter preventieve overwegingen[4])	Klachten/ symptomen	Louter preventieve overwegingen							1e maal[9])	Herhaling[9])		Na 1-1-1994 voor 1e maal	Herhalings-onderzoek						
		M+V	V	V	V	V	M	V	M	V	M	V	V	V	M+V	V	V	V	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 1970-1996

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)	1988-1996
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	1976-1996
cerebrovascular accident	1986-1987
chronic benign pain disturbance	1995-1996
dementia	1987-1988
depression	1983-1985
diabetes mellitus	1980-1983 and 1990-1994
diarrhoea e causa ignota (acute)	1970
discharged psychiatric patient	1986-1988
dog bites	1987
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
hay fever	1978-1982
hepatitis	1994
influenza (-like illness)	1970-1996
liver, gall bladder and pancreas disease	1995-1996
malignancies	1984-1986
measles	1975-1979
measles/mumps	1990
mononucleosis infectiosa	1977-1979 and 1991
morning-after pill (prescription)	1972-1991

Subjects on the weekly returns in alphabetical order 1970-1996 (continuation)

subjects	
musculo-skeletal system (trauma of)	1984
myocardial infarction (suspicion of	1978 and 1983-1985
and/or confirmed)	1991-1994
oestrogens prescribed	1994-1996
otitis media acuta	1971 and 1986
out-patient or clinical mammography	1988-1996
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
p.i.d. (pelvic inflammatory disease)	1994-1996
pregnancy (despite contraception)	1987-1991
prescription of Rohypnol	1987-1988
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	1972-1996
sterilization of the woman performed	1974-1996
suicide (attempted)	1970-1972 and 1979-1996
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	1992-1996

Appendix 3b

Incidental investigations and other extra investigations, 1977-1996 (alphabetical)

subjects	
acute intoxication in the work situation	1994-1995
alternative forms of treatment (registration feasible?)	1980
anorexia nervosa and boulimia	1985-1989 and 1995-1996
euthanasia (request for application)	1976-1996
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 1995 (C.B.S.)

age	men	women	total
0- 4	506	483	989
5- 9	483	463	946
10-14	462	442	904
15-19	471	451	922
20-24	581	564	1 145
25-29	667	635	1 302
30-34	672	642	1 314
35-39	620	600	1 220
40-44	583	563	1 146
45-49	597	570	1 167
50-54	452	433	885
55-59	380	377	757
60-64	338	356	694
65-69	286	334	620
70-74	238	318	556
75-79	147	234	381
80-84	91	182	273
≥ 85	53	150	203
total	7 627	7 797	15 424

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

CONTINUE MORBIDITEITSREGISTRATIE PEILSTATIONS

BLAD 1

CUMULATIEF ALLE PEILSTATIONS GESTANDAARDISEERD

24-06-96

ALLE PEILSTATIONS

JAAR: 1995 WEEK: 01 T/M 52

LEEFTIJDS-GROEP	POPULATIE			"INFLU-ENZA"	CERVIXUITSTRIJKJE				LEVER-, GALBLAAS EN PANCREASZIEKTE			STERILISATIE		
				"INFLU-ENZA"	1.1.93 1E MAAL WEGENS	1.1.93 1E MAAL PREVENT	HERHAL. WEGENS	HERHAL. PREVENT	LEVER-, GALBLAAS EN PANCREASZIEKTE			STERILISATIE		
	M	V	T	M+V	V	V	V	V	M	V	T	M	V	T
<1 JR	524	489	1013	592	0	0	0	0	0	0	0	0	0	0
1-4 JR	3622	3427	7049	517	0	0	0	0	3	6	4	0	0	0
5-9 JR	4283	4067	8350	357	0	0	0	0	16	5	11	0	0	0
10-14 JR	4248	4092	8340	282	0	0	2	0	2	10	6	0	0	0
15-19 JR	4246	4243	8489	303	21	14	7	0	19	9	14	0	0	0
20-24 JR	5783	5851	11634	286	84	103	17	14	7	3	5	0	2	1
25-29 JR	6236	6159	12395	328	102	335	33	93	8	11	10	11	15	13
30-34 JR	6226	5938	12164	333	94	613	74	197	18	8	13	74	78	76
35-39 JR	5613	5500	11113	337	100	1364	144	520	14	22	18	209	115	162
40-44 JR	5250	5240	10490	290	99	1448	164	719	13	25	19	101	65	83
45-49 JR	5184	5119	10303	284	96	1176	131	657	43	22	32	66	31	49
50-54 JR	3861	3753	7614	319	88	1109	123	686	47	69	58	13	11	12
55-59 JR	3423	3295	6718	351	79	331	55	167	20	24	22	0	0	0
60-64 JR	3029	3314	6343	325	48	142	30	45	36	63	50	3	0	2
65-69 JR	2676	3043	5719	254	23	30	20	17	41	46	44	0	0	0
70-74 JR	2189	2735	4924	248	18	26	7	7	82	44	61	0	0	0
75-79 JR	1390	2086	3476	259	5	5	0	0	65	82	75	0	0	0
80-84 JR	860	1579	2439	193	0	6	0	0	58	57	58	0	0	0
>85 JR	571	1327	1898	116	0	0	0	0	35	30	32	0	0	0
TOTAAL	69214	71257	140471	315	59	467	55	212	22	24	23	38	24	31

ALLE PEILSTATIONS JAAR: 1995 WEEK: 01 T/M 52

LEEFTIJDS-GROEP	POPULATIE			OESTROGENEN VOORSCHRIFT		CHRONISCHE BENIGNE PIJNSTOORNIS			SUICIDE (POGING)	MAMMOGRAFIE		P.I.D.	URETHRITIS	CAIDS
				1E MAAL	HERHALING	CHRONISCHE BENIGNE PIJNSTOORNIS			SUICIDE (POGING)	1.1.94 1E MAAL	HERHAL.	P.I.D.	URETHRITIS	CAIDS
	M	V	T	V	V	M	V	T	M+V	V	V	V	M	M+V
<1 JR	524	489	1013	0	0	0	0	0	0	0	0	0	0	0
1-4 JR	3622	3427	7049	0	0	0	0	0	0	0	0	0	3	3
5-9 JR	4283	4067	8350	0	0	0	0	0	0	0	0	0	2	0
10-14 JR	4248	4092	8340	0	0	0	0	0	0	0	0	0	2	1
15-19 JR	4246	4243	8489	9	2	0	0	0	9	17	0	5	12	26
20-24 JR	5783	5851	11634	3	7	4	0	2	11	60	3	10	21	57
25-29 JR	6236	6159	12395	7	5	0	3	2	7	70	11	15	40	61
30-34 JR	6226	5938	12164	3	27	6	7	7	12	142	22	12	45	32
35-39 JR	5613	5500	11113	7	31	7	7	7	9	207	69	18	36	30
40-44 JR	5250	5240	10490	53	94	13	11	12	8	226	105	19	23	24
45-49 JR	5184	5119	10303	170	489	8	14	11	12	221	115	10	43	15
50-54 JR	3861	3753	7614	277	930	3	27	15	9	208	104	13	29	13
55-59 JR	3423	3295	6718	106	459	9	18	13	7	179	76	6	38	2
60-64 JR	3029	3314	6343	63	148	0	18	10	0	94	57	0	46	5
65-69 JR	2676	3043	5719	56	151	0	7	4	4	89	26	7	4	4
70-74 JR	2189	2735	4924	40	51	27	11	18	8	84	33	0	32	0
75-79 JR	1390	2086	3476	24	38	0	10	6	0	48	5	0	29	0
80-84 JR	860	1579	2439	6	38	0	6	4	0	25	25	0	35	0
>85 JR	571	1327	1898	30	90	0	0	0	21	0	0	0	18	0
TOTAAL	69214	71257	140471	46	137	5	7	6	7	104	39	8	26	21

CONTINUE MORBIDITEITSREGISTRATIE PEILSTATIONS

BLAD 1

PROVINCIEGROEP NAAR ZIEKTEBEELD GESTANDAARDISEERD

24-06-96

JAAR: 1995 WEEK: 01 T/M 52

PROVINCIE-GROEP	POPULATIE			"INFLU-ENZA"	CERVIXUITSTRIJKJE				LEVER-, GALBLAAS EN PANCREASZIEKTE			STERILISATIE		
				"INFLU-ENZA"	1.1.93 1E MAAL WEGENS	1.1.93 1E MAAL PREVENT	HERHAL. WEGENS	HERHAL. PREVENT	LEVER-, GALBLAAS EN PANCREASZIEKTE			STERILISATIE		
	M	V	T	M+V	V	V	V	V	M	V	T	M	V	T
GR+FR+DR	11068	11672	22742	209	77	408	47	159	9	7	8	31	16	23
OV+GLD+FLE	15608	15382	30988	365	87	456	96	182	19	25	22	41	28	35
UTR+NH+ZH	26589	27958	54548	311	47	487	37	261	22	28	25	38	24	31
ZLD+NB+LIM	15942	16232	32176	363	42	506	57	203	36	30	33	40	27	33
TOTAAL	69207	71244	140454	318	59	470	56	213	22	24	23	38	24	31

CONTINUE MORBIDITEITSREGISTRATIE PEILSTATIONS

BLAD 2

PROVINCIEGROEP NAAR ZIEKTEBEELD GESTANDAARDISEERD

24-06-96

JAAR: 1995 WEEK: 01 T/M 52

PROVINCIE-GROEP	POPULATIE			OESTROGENEN VOORSCHRIFT		CHRONISCHE BENIGNE PIJNSTOORNIS			SUICIDE (POGING)	MAMMOGRAFIE		P.I.D.	URETHRI-TIS	CAIDS
				1E MAAL	HERHA-LING	CHRONISCHE BENIGNE PIJNSTOORNIS			SUICIDE (POGING)	1.1.94 1E MAAL	HERHAL.	P.I.D.	URETHRI-TIS	CAIDS
	M	V	T	V	V	M	V	T	M+V	V	V	V	M	M+V
GR+FR+DR	11068	11672	22742	19	76	6	6	6	5	74	17	3	14	20
OV+GLD+FLE	15608	15382	30988	58	167	1	6	3	5	133	90	10	40	15
UTR+NH+ZH	26589	27958	54548	44	150	5	9	7	7	104	30	10	32	23
ZLD+NB+LIM	15942	16232	32176	59	129	6	8	7	10	104	23	8	11	24
TOTAAL	69207	71244	140454	46	137	5	7	6	7	105	39	8	26	21

CONTINUE MORBIDITEITSREGISTRATIE PEILSTATIONS

BLAD 1

URBANISATIEGROEP NAAR ZIEKTEBEELD GESTANDAARDISEERD

24-06-96

JAAR: 1995 WEEK: 01 T/M 52

STEDELIJK-HEIDSGRAAD	POPULATIE			"INFLU-ENZA"	CERVIXUITSTRIJKJE				LEVER-, GALBLAAS EN PANCREASZIEKTE			STERILISATIE		
				"INFLU-ENZA"	1.1.93 1E MAAL WEGENS	1.1.93 1E MAAL PREVENT	HERHAL. WEGENS	HERHAL. PREVENT	LEVER-, GALBLAAS EN PANCREASZIEKTE			STERILISATIE		
	M	V	T	M+V	V	V	V	V	M	V	T	M	V	T
5	9758	9551	19309	377	59	298	38	267	19	35	26	39	34	36
4-3-2	45199	46458	91659	276	58	499	69	215	23	20	21	35	19	27
1	14250	15235	29486	413	64	493	28	175	23	32	28	46	35	40
TOTAAL	69207	71244	140454	318	59	470	56	213	22	24	23	38	24	31

CONTINUE MORBIDITEITSREGISTRATIE PEILSTATIONS

BLAD 2

URBANISATIEGROEP NAAR ZIEKTEBEELD GESTANDAARDISEERD

24-06-96

JAAR: 1995 WEEK: 01 T/M 52

STEDELIJK-HEIDSGRAAD	POPULATIE			OESTROGENEN VOORSCHRIFT		CHRONISCHE BENIGNE PIJNSTOORNIS			SUICIDE (POGING)	MAMMOGRAFIE		P.I.D.	URETHRI-TIS	CAIDS
				1E MAAL	HERHA-LING	CHRONISCHE BENIGNE PIJNSTOORNIS			SUICIDE (POGING)	1.1.94 1E MAAL	HERHAL.	P.I.D.	URETHRI-TIS	CAIDS
	M	V	T	V	V	M	V	T	M+V	V	V	V	M	M+V
5	9758	9551	19309	74	290	0	8	4	3	124	63	11	43	9
4-3-2	45199	46458	91659	39	117	5	7	6	7	96	36	7	18	18
1	14250	15235	29486	49	100	6	8	7	10	124	35	10	42	37
TOTAAL	69207	71244	140454	46	137	5	7	6	7	105	39	8	26	21

FOOTNOTES

1. Casteren V. van, P. Lerquin. Eurosentinel: Development of an International Sentinel Network of General Practitioners. Meth. Inform. Med. 1992; 31:147-52

2. Hoek H.W. The incidence and prevalence of anorexia nervosa and boulimia nervosa in primary care. Psychol. Med. 1991; 21: 455-460.

   Hoek Hans W., Bartelds, Aad I.M., Bosveld, Jacqueline J.F. e.a.: Impact of Urbanisation on Detection Rates of Eating Disorders. Am. J. Psychiatry, 152: 9, 1272-1278.

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

4. Beroepen Extramurale Gezondheidszorg. Per 1 Januari 1996. NIVEL,Utrecht.

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

6. 1-1-1995, Central Statistical Office. Persons who are entered in the Central Register of Vital Statistics (CPR) have been left out of consideration.

7. Practice census 1993.

8. 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.

9. 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).

10. Here and elsewhere in the text incidence or frequency means the frequency per 10 000 inhabitants (either men or women).

11. 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.

12. The calculations made in this chapter have been performed by Dr E. Ketting, now employed by the Netherlands Institute for Socio-Sexological Research

13. Moors, J.P.C., Met overgangsklachten bij de huisarts. Voordracht Vereniging Studie Climacterium, 1992.

14. Gezondheidsraad (1986). Advies inzake pijnbehandeling. Den Haag.

15. Bleker O.P., W.I. van der Meijden. Chlamydia trachomatis-infecties: complicaties bij de vrouw SOA-bulleting 13, (1992) 6, blz. 8-9.

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

17. Moons, M.A.W., L. Peters. Vragen over AIDS bij de huisarts. Ongerustheid en angst van niet-seropositieve patiënten in de periode 1988-1993. Nivel, Utrecht, mei 1994.

18. National Committee for AIDS control, AIDS info line, annual report. 1988-1989, Amsterdam 1991.

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

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

21. A.I.M. Bartelds. Requests for application of euthanasia. In the Dutch Sentinel Practice Network; relevance for public health policy, p. 259. Nivel, Utrecht 1989.

Explanatory notes pertaining to:

Bijlage 1	
Bijlage	- Appendix
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
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)
Cervixuitstrijkje	- Cervical smear
Na 1-1-1993 voor de eerste maal	- Taken for the first time after 1-1-1993
afgenomen op grond van	on the ground of
Klachten/symptomen	- Complaints/symptoms
Louter preventieve overwegingen	- Purely preventive considerations
Lever-, galblaas- en pancreas ziekte	- Liver, gall bladder and pancreas diseases
Chronische benigne pijnstoornis	- Chronic benign pain disturbances
Sterilisatie verricht	- Sterilization performed
Oestrogenen voorschrift	- Oestrogens prescribed
Suïcide(poging)	- (Attempted) suicide
(Poli) klinische mammografie	- mammography
na 1-1-1994 voor eerste maal	- Taken for the first time after 1-1-1994
Herhalingsonderzoek	- Repeat examination
P.I.D.	- P.I.D.
Urethritis bij man	- Urethritis of the man
C.A.I.D.S.	- Concern about AIDS

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. Betreft rapportering van vrouwen bij wie na 1-1-1993 om welke reden dan ook een cervixuitstrijkje heeft plaatsgevonden. Indien bij een vrouw na 1-1-1993 opnieuw een cervixuitstrijkje wordt gemaakt, dient dit altijd onder de subrubriek "herhalingsonderzoek" geboekt te worden (zie ook voetnoot 5).
4. Bijvoorbeeld in het kader van pilcontrole, op verzoek van de vrouw zonder dat ze klachten heeft of in het kader van het bevolkingsonderzoek.
5. Bijvoorbeeld wegens verdacht preparaat of wegens technische onvolkomenheden bij onderzoek vorig preparaat.
6. Per melding S.V.P. apart formulier voor de aanvullende gegevens invullen en bij de weekstaat voegen
   Code
   Geboortedatum .....
   Geslacht
7. S.v.p. een apart formulier voor de aanvullende gegevens invullen en bij de weekstaat voegen,

- 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. Concerns reporting of women on whom a cervical smear was taken after 1-1-1993 for whatsoever reason. If a cervical smear was taken again of a women after 1-1-1993 this should always be entered under the subheading "Repeat examination" (see also footnote 5).
4. For example as part of check-up for the pill, of the woman's request without for having complaints or as part of the mass screening.
5. For example on account of suspect preparation or technical imperfections in the examination of the previous preparation.
6. Please complete a separate form and attach to the weekly return
   Code
   Date of birth
   Male/female
7. Please complete a separate form and attach to the weekly return

8. 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:.....
9. S.v.p. apart formulier invullen en bij de weekstaat voegen.
10. S.v.p. apart formulier invullen en bij de weekstaat voegen.
11. S.v.p. apart formulier invullen en bij de weekstaat voegen.

8. 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 the exact age here.

   Age:.....
9. Please complete a separate form and attach to the weekly return.
10. Please complete a separate form and attach to the weekly return.
11. Please complete a separate form and attach to the weekly return.

Tables (p 136 - p 139)

Continue morbiditeits registratie peilstations	- Continuous morbidity registration sentinel stations
Kwartaal	- Quarter
Leeftijdsgroep	- Age group
Influenza (-achtig ziektebeeld)	- Influenza (-like illness)
Cervixuitstrijkje	- Cervical smear
Klacht/symptoom	- Complaint/symptom
Herhalingsonderzoek	- Repeat smear
Lever-, galblaas- en pancreas ziekte	- Liver, gall bladder and pancreas diseases
Sterilisatie verricht	- Sterilization performed
Oestrogenen voorsshrift	- Oestrogens prescribed
Chronische benigne pijnstoornis	- Chronic benign pain disturbances
Suïcide(poging)	- (Attempted) suicide
(poli) klinische mammografie	- (Clinical) mammography
na 1-1-1994 voor de eerste maal	- Taken for the first time after 1-1-1994
Herhalingsonderzoek	- Repeat examination
P.I.D.	- P.I.D.
Urethritis bij man	- Urethritis of the man
C.A.I.D.S.	- Concern about AIDS

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