FIGURES FROM THE INFORMATION SYSTEM ON PROFESSIONALS IN DUTCH PRIMARY HEALTH CARE FOR 1988

Statistical data on 1 January 1988 on General Practitioners and midwives
Statistical data on 1 January 1987 on physiotherapists

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CONTENTS page

page

1. INTRODUCTION

Every year the Netherlands institute of primary health care (NIVEL) publishes a statistical overview of data from the information system on professionals in primary health care. This data concerns professionals practising in primary health care and cohorts of graduates.
This report presents an outline of the data collected in 1988 on General Practitioners (GPs) and midwives.
The figures on physiotherapists in this report state the situation on 1 January 1987. More facts and figures can be found in 'Cijfers uit de registratie van beroepen in de eerstelijnsgezondheidszorg 1988' (F. van Dam and L. Hingstman, NIVEL, Utrecht, 1988).

Which sources of data have been used? The figures on general practitioners derive from the registration-system for practising general practitioners which has been kept by the NIVEL since 1974. The most important data on general practitioners are: personal data, address of practice, way of establishment, type of practice, function and with or without a dispensary.
The figures on midwives derive from the information system on midwives, which has been kept by the NIVEL since 1984. The data covers the period since 1970. Apart from personal data, data concerning function, method of establishment, type of practice, address of practice and the working area are being kept.
The data on physiotherapists derives from the information system on physiotherapists practising in primary health care, which has been kept by the NIVEL since 1985. The data is collected partly by means of a comparison of data from several existing sources, partly through a survey of all physiotherapists, practising in primary health care on 1 January 1987. Apart from personal data, data is kept on address of practice, composition of practice and number of working hours.
In addition to the records on GPs, midwives and physiotherapists, the NIVEL collects information on recently graduated GPs, midwives and physiotherapists. All GPs and midwives graduated since 1974 and 1970 respectively are registered. The data concerning recently graduated physiotherapists was collected in a survey of physiotherapists who graduated in 1985 and 1986.
An outline of the data collected on general practitioners, midwives

and physiotherapists will be presented in chapter 5, chapter 6 and chapter 7 respectively.
Before these facts and figures can be fully understood, insight is needed in the structure and functioning of primary health care in the Netherlands. Chapter 4 functions as a brief guide in this respect.

2. LIST OF TABLES

page

A. GENERAL PRACTITIONERS

B. MIDWIVES

C. PHYSIOTHERAPISTS PRACTISING IN PRIMARY HEALTH CARE

3. LIST OF FIGURES

page

A. GENERAL PRACTITIONERS

B. MIDWIVES

C. PHYSIOTHERAPISTS

D. CONTOURMAPS

4. PRIMARY HEALTH CARE IN THE NETHERLANDS

4.1. Introduction

Health care in the Netherlands is supplied at several distinct levels (echelons). These levels are distinguised by a decreasing degree of user independence (patient or client). They are:

0 **The informal level,** where people take care of themselves and others, without or in addition to interventions of professional workers. This kind of help is referred to as self-care, volunteer-aid or self-help.

1 **Primary (health) care** (the first echelon), which we can circumscribe as a subsystem of (health) care, in which professional workers accept a shared responsibility for a continuous, integrated and personal (health) care for individuals at home. This will be considered further in section 4.2.

2 **Secondary (health) care** (the second echelon), which concerns the specialized care, residential nursing and care over a shorter or longer period. This secondary care is supplied mainly in semimural and intramural facilities (like hospitals and nursing homes) but also in extramural facilities (like ambulant mental health care, and ambulant specialist help). Activies at this level are carried out intramurally and are highly specialized. Relations with primary care exist through consultation and referral, exchange of information and cooperation during assistance.

These three levels are complementary and closely related to each other. The Dutch government aims at strenghtening (both quantitatively and qualitatively) primary care with the objective of restricting the appeal to the, generally more expensive, secondary care.

4.2. Primary health care

Primary health care is characterized by:
1. The general character of the help and care offered, with pre-

ventive, educational, curative, nursing, caring, rehabilitating, safeguarding, anticipatory and monitoring aspects, not restricted to specific demands for help, specific demands, or methods of assistance;
2. (basically) Free access to the services;
3. Location near or among the target population;
4. Orientation towards the individual in his familiar environment;
5. Ambulant assistance.

Within primary health care we can distinguish four categories of activity, aimed at the preservation and recovery of the physical, mental and social well-being of people, and the filling of gaps during disruptions of this. These are: 1. medical and paramedical treatment; 2. social work; 3. nursing and 4. care.
The following facilities can be distinguished:
1. **Medical and paramedical treatment:** general practice, obstretrics, dental surgery, physiotherapy, dietetics, pharmaceutical help, etc.;
2. **Social work:** information and advice, psychosocial assistance, general social work, social advice, emergency line, etc.;
3. **Nursing:** district nursing, maternity care;
4. **Care:** home help, specific welfare center services.

In this publication we will take a closer look at the above mentioned groups of professionals (general practitioners, midwives and physiotherapists). The discussion will focus on the volume, composition and (geographical) distribution of these groups. These topics will be preceded by a general introduction to the professional group concerned and an outline of the most important developments and government regulations. In addition attention will be paid to recently graduated GPs, midwives and physiotherapists. Before this, a brief outline is given about the way in which health care is financed in The Netherlands.

4.3. The financing of health care in the Netherlands

By financing we mean the way in which the individual professional worker is paid for the assistance he or she supplies. Those requesting help can be insured against medical expenses in different ways. The most important of these ways is Public Health insurance. Approximately 65% of the Dutch population are publicly insured. This

is compulsory insurance against medical expenses for every employee below a certain level of income. The insurance premiums are partly deducted from the gross income of the employee, and are paid in part by the employer. These premiums constitute the basis of a fund from which the Regional Health Insurance Funds pay the costs of (medical) care and assistance.

If a professional worker wants to treat publicly insured patients, he or she has to enter into a contract with the Regional Health Insurance Funds. A general practitioner then receives a fixed sum per patient per year, irrespective of the number of treatments and their nature (capitation). Midwives and physiotherapists are paid on a 'fee-for-service' basis.

About 35% to 40% of the Dutch population are not publicly insured. The most important criterion for this is the level of income. Most people in this group are insured against medical expenses with one of the private insurance companies in the country and are refunded for their medical expenses in terms of the arrangements of their insurance policy.

At the present time nearly all the general practitioners, midwives and physiotherapists in our country are under contract to the public insurers. Those who are, are all registered in the information systems kept by the NIVEL (see chapter 1).

This system of financing health care in the Netherlands, which is a mixture of public and private elements, will change substantially in the near future. The publication of the Report of the advisory Committee on 'the structure and financing of the health care system', entitled 'Readiness for change' forms the basis for the expected changes. The Committee's most important proposals are:

- the introduction of a basic insurance system for every citizen, and in addition, a supplementary insurance scheme under which the insured can decide what coverage he or she wants
- the termination of the existing obligation of the public insurers to enter into a contract with a professional health care worker
- the encouragement of the substitution policy; a shift towards primary health care.

These proposals will lead to less government involvement, and a strengthening of the market forces of supply and demand in health care.

Lapré (1988) concludes that "the fact that there is a certain amount of agreement, at least on the direction that the strategy for change should take, justifies the expectation that many of the committee's

proposals will be implemented".
We will now turn to our discussion on the professional groups.

5. GENERAL PRACTITIONERS

5.1. Introduction

In this introduction to the professional group of general practitioners we shall try to complete the picture, drawn in the previous sections, by paying attention to some relevant and characteristic issues.

The GP can be regarded as one of the most important persons in Dutch health care. He is directly accessible to patients and he is the person who refers patients to almost all other medical services, both in the first and second echelon of the Dutch health care system.

A physician may call himself a general practitioner after completing a one-year post-graduate course in general practice. Not all graduate general practitioners establish themselves as GPs.

Establishment as a GP in independent practice can take place in several ways:

1. By taking over the practice of a GP leaving and/or retiring (take-over);
2. By entering into a partnership with one or more already established GPs (partnership);
3. By starting a new practice (free-establishment).

The last mentioned method is more or less bound to restrictions since in February 1986 the 'legal establishment-policy' came into effect. This establishment-policy (establishment-decree) only permits a GP to establish in a practice in a municipality with a GP-density of less than one GP per 2350 inhabitants. An application has to be filed for establishment, and subsequently evaluated by a specially established 'municipal establishment committee' for this purpose.

As can be deduced from the last paragraph GPs can be classified according to their rate of cooperation. In this report we distinguish among GPs working in:

1. solo-practices;
2. duo-practices or partnerships;
3. group-practices;
4. health centres.

Other important features concerning GPs in the Netherlands that have to be mentioned are:

- All patients insured under the National Health Insurance Scheme are listed with one GP. Privately insured patients can choose any GP they like; as a rule, however, they are also listed with one specific GP.
- Some GPs still deliver babies, especially those in the more rural parts of the country (see chapter 6).
- Some 12% of the GPs in the Netherlands have a licenced dispensary again especially those in the more rural parts of the country.
- Essentially, GPs are accessible 24 hours a day. Out of hours services, however, are arranged among the GP's themselves. Service is supplied by the GP on duty.
- GPs do not issue of medical certificates for publicly insured patients.

We will now turn to a description of the current state of affairs.

5.2. Volume

On 1 January 1988 there are 6275 independently practising general practitioners in The Netherlands (table 1). This is an increase of 69 GPs (1.1%) compared to the 1987 figure. The relative increase was equal to the increase in 1986, but substantially lower than in 1985 when it was 4.0%. This difference is caused by the institution of the legal establishment policy mentioned in the previous paragraph. The share of female GPs, 10.2% on 1 January 1988, is only increasing slowly (table 1). In spite of this, the absolute number of female GPs has increased by 7.4% in 1987. The number of male GPs increased by 0.4%.

5.3. Establishment and retirement

The establishment figures in table 2 clearly reveal the effect of the abovementioned establishment policy. The numbers of newly established GPs in 1986 and 1987 (196 and 200 respectively) have been substantially reduced in comparison to the years before 1986. The establishment policy has only limited the number of establishments, and this has not changed the proportion of newly established female GPs. The shift in this proportion has been an autonomous process since 1973 (table 1). In 1987, 30.0% of the newly established GPs were women (table 2). There were 131 GPs who stopped practising in 1987. Most of them retired; 25% occupied another

medical function.
As a consequence of the legal establishment policy, non-supported new establishments do not occur anymore (table 3). Most of the new GPs enter into a partnership with another GP (54.0%). Partnership remains the most important method of establishment. Almost 45% of the new GPs established themselves in a duo practice.

5.4. Age and type of practice

The relative number of GPs younger than 35 years has decreased; 37.4% of the female GPs and 13.0% of the male GPs are younger than 35 years (table 4). These percentages have been decreasing since 1985. Of the practising GPs 9.0% are above 60. Most of them are men. Despite a diminishing share, most of the GPs (54.5%) still work in a solo practice. This percentage is decreasing since 1970 (table 5).
The solo practice GP is relatively older than the GPs practising in other types of practices; 21.5% of the GPs working in a solo practice are 55 years or older (table 6). Among the GPs working in a duo or group practice this percentage is 12.7% and 14.1%. Only 5% of the GPs practising in a health centre are 55 years or older.
In 1987 the number of GPs dispensing medicines has decreased again, as table 7 shows. The relative number of GPs dispensing had fallen from 30% in the early 1970's to 12% in 1988. GPs dispensing medicines are mainly to be found in the more rural parts of the country (85% of the GPs dispensing) (table 8). Among GPs practising in the most rural areas, nearly 50% have a dispensary. GPs dispensing medicines are relatively older than GPs who do not have a dispensary.

5.5. Distribution and density

Table 9 shows that 1620 of the 6275 GPs (25.8%) practise in the large towns of the country (towns with more than 100.000 inhabitants). In these large towns, most of the GPs work in a solo practice. Duo practices are mainly to be found in the urbanized rural areas. In commuter municipalities and in large towns there is a relatively large number of GPs practising in a health centres (table 9).

In 1987, the average number of inhabitants per independent General Practice decreased again; from 2355 to 2345 inhabitants per GP. As can be seen from table 10 and 11, GPs are not equally distributed over the Netherlands. The GP-density is the lowest in the province of Overijssel (2506 inhabitants per GP) and highest in the province Noord-Holland (2183) (table 10). The highest GP-density is to be found in the large towns (2181 inhabitants per GP), the lowest in the commuter municipalities and rural areas. Figure 5 shows the GP-density per Economic Geographic Area (EGA). Densities are low in large parts of the provinces of Holland and Overijssel.

5.6. Recently graduated general practitioners

Since 1974, the year in which the first GPs concluded GP-training, 5640 students graduated from GP-training. Every year, between 400 and 500 GPs complete their training; 477 in 1987 (table 12). This number will be lower in 1988, judging from the fact that on 1 January 1988 only 430 students follow the GP-training. Of these students, 47 are following the new two-year training, which started in 1988. In 1991 this new training will have replaced the old, one-year training. As can be inferred from table 12, there is a surplus of GPs in the Netherlands: 632 recently graduated GPs are, by January 1988, still in search of a practice. Establishment options have substantially decreased since 1986; the year in which the establishment policy (see paragraph 5.1) came into effect.
The number of GPs in search of a practice has been reduced by the number of GPs who have given up an independently established practice: 26.8% of the GPs who graduated since 1974. They were partly forced because their registration with the GP Registration Committee has expired (table 13). Most of the GPs who give up their practices find employment in another part of the health care system.

5.7. Concepts

Independently established general practitioner - a GP practising for NHIF and privately insured patients. The NHIF patients are registered as his patients

Assistant general practitioner - a GP (not in training) who is employed by an independently established GP for a longer period of time (at least half a year)

Supported free establishment - a new establishment of a GP-practice, supported by (a part of) neighbourhood-colleagues in the form of a transfer of patients, closure of surrounding practices, an offer of a temporary practice or an additional function

Non-supported free establishment - a new establishment of a practice, not supported by neighbourhood-colleagues

Take-over - establishment of a GP by continuing an existing practice

Partnership - establishment of a GP by entering into a partnership with one or more already established GPs, or by continuing a practice by two or more GPs in the form of a partnership

Solo practice - a practice of one independently established GP (whether or not in cooperation with an assistent GP)

Duo practice - a practice of two independently established GPs in partnership whether or not in a joint practice building

Group practice - a practice of at least three independently established GPs in a joint practice building

Health centre - a joint establishment of at least one independently established GP, one district nurse and one social worker

GP dispensing medicines - an independently established GP with a dispensary-licence

GP-density - the number of inhabitants per GP

Economic Geographical Area - the Netherlands are subdivided in 129 EGAs, which are characterized by a high degree of intraregional socio-economic homogeneity

Level of urbanization - typology of municipalities in which the degree (level) of urbanization is reflected (following J.J. Harts, 1979)

Rural areas : areas with a centre of fewer than 5000 inhabitants and more than 20% of the male labour force employed in agriculture

Urbanized rural areas	: area with a centre of fewer than 30,000 inhabitants and more than 80% of the male labour force employed in the non-agricultural sector
Commuter municipality	: municipality with a centre of fewer than 30,000 inhabitants and more than 30% of the male labour force commuting
Urban municipalities	: municipalities with a built-up area of more than 2000 inhabitants/km^2 and an average population density of more than 500 inhabitants/km^2; usually more than 70% of the population in the built-up area. E.g.:
1. Small towns	: municipalities with less than 30,000 inhabitants in the built-up area
2. Medium sized towns	: municipalities with between 30,000 and 100,000 inhabitants in the built-up area
3. Large towns	: municipalities with more than 100,000 inhabitants in the built-up area

6. MIDWIVES

6.1. Introduction

Obstetric care in The Netherlands is organized differently in comparison with most other industrialized countries. In the Netherlands more than one third of the births are delivered at home. The authority to carry out deliveries is not confined to general practitioners and gynaecologist/obstetricians alone, but is also given to a third professional group: the midwives. In most countries the midwife is an assistant to the gynaecologist/obstetrician. In the Netherlands the midwife carries out the delivery where a normal birth (without complications) is to be expected.
In such cases the delivery can be assisted by the midwife or the general practitioner: in a way these professional groups act as competitors within the 'obstetric market'. To regulate this competition the Public Health Insurance Fund - decree of 1941 was implemented. This decree requires publicly insured pregnant women to use the services of a midwife (if one is available in the area) in order to be eligible for a full refund of the costs of the delivery. If no midwife is available, the delivery is carried out by a GP (as stated in chapter 5). Privately insured women usually get the midwife's fee refunded by their insurance company, regardless of whether a midwife or a GP carried out the delivery.
In 1984, 42,4% of all births in the Netherlands was carried out by a midwife (41,6% by gynaecologists/obstetricians and 16,0% by GPs).
There are three training colleges in the Netherlands where you can qualify as a midwife after completing a three year course.
Midwives are either self-employed through independent establishment, employed by a hospital, or work as an assistant or locum for a independently established midwife.
As with GPs independent established midwives are classified by their (intra)professional cooperative status as midwives practising in a solo-, duo- or group-practice.
Statistical data on midwives on volume, function and geographical distribution are presented in the following sections.

6.2. Volume

On 1 January 1988, there were 711 independently established midwives in The Netherlands; 166 midwives were clinically employed (working in hospitals). The number of independent midwives has been rising since 1979; the number of clinically employed midwives has remained constant since 1977 (table 14). Nearly all midwives (97%) are women. The number of male midwives is rising only slowly.

6.3. Establishment and retirement

In 1987, the number of independently established midwives rose by 29; 70 midwives started, and 41 ceased practising (most of them retired). The increase in the number of midwives has returned to the level of 1983-1985.
In 1987 nearly 75% of the new independently established midwives established themselves in partnership; 19% took over a practice from a retiring midwife. The number of new establishments declined sharply (table 16). Establishment through partnership is the trend; nearly 80% established themselves in a duo or group practice.

6.4. Age, function and type of practice

Midwives are relatively young; nearly 56% are below 40 (table 17). The 711 independently established employed midwives are, on an average, older than the clinically employed midwives. The average age of the first category is 40.6 years and of the second 36.9 years.
Looking at the type of practice in which indepently established midwives practise, a decline in the number of midwives working solo, can be seen. In 1970, 91% of the independent midwives were working in a solo practice. By 1988 this percentage has fallen to 44% (table 18). Over the last four years the relative number of midwives practising in a duo practice has fluctuated around 35%. The number of midwives in a group practice has increased spectacularly in 1987 from 13.1% to 20.5%. This percentage has been rising substantially since 1985.
Midwives practicing in duo and group practices are mostly younger than solo practice midwives (table 19). Their average ages are 37.5, 35.3 and 44.5 years respectively.

6.5. Distribution and density

In the provinces of Limburg and Groningen a relatively large number of midwives are employed clinically. Midwives employed by clinics are found mainly in the large and medium sized towns in the Netherlands. This should not come as a surprise because there are only a few hospitals in the smaller towns and municipalities. Solo practices are found mainly in the more rural areas of the country. In the more urbanized parts, a relatively large number of midwives practise in duo or group practice.
As with GPs, midwife density can be expressed in terms of numbers of inhabitants per midwife. Such an operationalization is, however, not very exact: not every person is in need of obstetric care. Therefore, we define the **midwife density** as the number of women aged between 15 and 39 years (the fertile age) per independently established midwife. On 1 January 1988, the average number of women of childbearing age per independently established midwife is 4174.
As can be seen from table 20 en 21, independently established midwives are not equally distributed throughout the country. The midwife density is above average in the provinces of Limburg, Flevoland, Noord-Holland and Utrecht. Zeeland and Friesland have the lowest midwife densities (table 20). These lowest densities are found in the most rural areas of the country (table 21). In these areas a midwife practice is not very remunerative, and many deliveries are for this reason, carried out by a general practitioner. In some rural parts of the Netherlands midwives are completely absent, as can be seen in figure 12.

6.6. Recently graduated midwives

Each year about 60 midwives complete their training; either in the Netherlands (Rotterdam, Amsterdam, Heerlen), or abroad (mostly in Belgium). Midwives trained abroad get a permission to practice obstetrics in the Netherlands. Training midwifery in the Netherlands lasts three years.
As can be inferred from table 22, tension on the labourmarket is relatively low. Most new graduate midwives have found jobs as midwives (some of them as assistant-midwives or as locums) by 1 January 1988. Few new graduate midwives are without employment in practice. Although most of the recent graduates have a position as a midwife, a relatively large number of them are seeking another job as a

midwife; especially those practising as locums. Most of them (63%) want to establish themselves independently, preferably in a partnership.

6.7. Concepts

Midwife - professional who, in according to the law or regulations, is permitted to practise obstetrics as a midwife. There are three vocational training colleges in the Netherlands where you can qualify as a midwife after completing a 3 year course

Clinical practice - midwife employed by a hospital

Independently established - midwife with a contract with the NHIF, practising alone, in partnership or in a health centre

Assistent-midwife - midwife employed by an independently established midwife

Locum - midwife employed by an independently established midwife for a short period of time (stand-in). For example in case of sickness, holidays etc.

Solo practice - a midwifery practice, in which one midwife practises (possibly with an assistant)

Duo practice - a practice, in which two midwives practise (possibly with assistant(s))

Group practice - a practice in which three or more midwives practise (possibly with assistant(s))

Free establishment - the establishment of a new midwifery practice

Take over - establishment of a midwife by continuing an existing midwifery practice

Partnership - establishment of a midwife by entering into a partnership with one or more already established midwives or by continuing a practice by two or more newly established midwives in a partnership

Not yet established midwife - graduate midwife, who is not (yet) established and who has not yet given up her plans to do so

Midwife density - the average number of women aged 15 to 39 years (the fertile age) per independently established midwife

Economic Geographical - the Netherlands are subdivided in 129 EGAs which are characterized by a high degree of intraregional socio-economic homegeneity

Level of urbanization - typology of municipalities in which the degree (level) of urbanization is reflected (after J.J. Harts, 1979)

Rural areas : areas with a centre of fewer than 5000 inhabitants and more than 20% of the male labour force employed in agriculture

Urbanized rural areas: area with a centre of fewer than 30,000 inhabitants and more than 80% of the male labour force employed in the non-agricultural sector

Commuter municipality: municipality with a centre of fewer than 30,000 inhabitants and more than 30% of the male labour force commuting

Urban municipalities : municipalities with a built-up area of more than 2000 inhabitants/km^2 and an average population density of more than 500 inhabitants/km^2; usually more than 70% of the population in the built-up area. E.g.:

1. Small towns : municipalities with less than 30,000 inhabitants in the built-up area
2. Medium sized towns: municipalities with between 30,000 and 100,000 inhabitants in the built-up area
3. Large towns : municipalities with more than 100,000 inhabitants in the built-up area

7. PHYSIOTHERAPISTS IN PRIMARY HEALTH CARE

7.1. Introduction

In the Netherlands two groups of physiotherapists can be distinguished: firstly, those who work in primary health care, and secondly, those who do not and are working in secondary health care: in general hospitals, nursing homes, rehabilitation centres etc. In this report we are only concerned with the first group.
In 1985, an information system on physiotherapists practising in primary health care was started at the NIVEL. Since then data were collected through a comparison of data from several existing sources. In addition to this, since 1987, data has been collected from the physiotherapists themselves. Given the size of this professional group and the amount of time it took collecting the data, it was not until 1988 that these data could be presented in an orderly fashion (Van Dam and Hingstman, 1988). It is for this reason that these data are one year behind the data on GPs and midwives, presented earlier in this report. The data on physiotherapists and recent graduates describes the situation on 1 January 1987.
The labour market for physiotherapists in the Netherlands is an over-stretched one: the demand for jobs exceeds the supply, with the ensuing unemployment. The discussion on this subject will be presented at greater length in section 7.5; one related issue will be considered now: establishment policy on physiotherapists.
An establishment policy like the one for GPs (see section 5.1) does not exist for physiotherapists. Establishment of primary health care physiotherapists is regulated solely by intervention of the Regional Health Insurance Funds. If the physiotherapist-density in a particular Regional Health Insurance Fund area exceeds the ratio of one physiotherapist (in full-time equivalents) per 3000 inhabitants, a physiotherapist can not establish him or herself in that area by entering into a contract with the Regional Health Insurance Funds. This regulation is stated in article 47, section 3 of the Health Insurance Fund decree, and constitutes a check on free establishment of physiotherapists in primary health care. The pros and cons of this regulation are not discussed in this report.
Physiotherapists in primary health care get most of their patients by referral from a GP. They also treat patients on referral from a medical specialist. They are paid on a 'fee for service basis'. Ac-

cording to the Act on the paramedical professions and the decree on physiotherapy (1965), physiotherapists are supposed to treat patients, but are not allowed to make diagnoses. Diagnosis is reserved for the GP, and physiotherapists can, at best, offer diagnostic help to the GP.
You qualify as physiotherapist in the Netherlands after completing a four year course at a training college. There are 20 colleges where physiotherapy is taught. Employment is offered either by independent establishment or a job in a hospital.
Four types of employment are distinguished: 1. independent establishment; 2. employment in a hospital; 3. assistant employed by an independent established physiotherapist; 4. employment in a health centre. Employment as an assistant physiotherapist occurs on various bases which we will not discuss here. In this report physiotherapists who work in a hospital are not considered as working in primary health care.
An independent physiotherapist can be classified according to the degree of (intra)professional cooperation into physiotherapists working a solo-, duo- or group-practice.
We will now turn to the presentation of the data.

7.2. Volume

By January 1 1987 there were 8986 physiotherapists practising in primary health care in The Netherlands, a number almost equal to that of 1986 (table 23). Nearly 53% of the physiotherapists were men.

7.3. Age, employment and number of practices

Physiotherapists are, even more than midwives, relatively young: 67.0% of the male and 70.4% of the female physiotherapists are below 40, only 2.5% of the physiotherapists are 60 or older (table 24).
Most of the physiotherapists in primary health care (71.8%) are independently established (table 25); 28% have jobs as assistant physiotherapists. These percentages differ between men (81% and 19% respectively) and women (61% and 38% respectively). A small group of physiotherapists (121), is employed in health centres. Of the 8986 physiotherapists practising in primary health care, 252 (2.8%) have more than one job in primary health care. Many physiotherapists are

working part-time (table 26).
Physiotherapists in independent practice are, on the average, older than assistant physiotherapists and those employed in health centres: 62% of the independently established physiotherapists are below 40 years, as against 85% and 90% of the physiotherapists practising as an assistant, or employed in a health centre respectively (table 27).
In 1986, the number of physiotherapy practices increased by 9.5% from 3036 to 3325 (table 28); an important rise in comparison with the relatively stable number of physiotherapists. From this, it can be inferred that a number of practices split up in 1986. 1295 of the 3325 practices (38.9%) had only one physiotherapist. This percentage has been rising since 1985. The average number of physiotherapists per practice felt from 3.05 in 1986 to 2.78 on 1 January 1987 (table 28).

7.4. Distribution and density

There seems to be slight tendency towards smaller practices:
The relative number of solo practices shows a steady increase over the past three years (table 28). The average size of a practise declined from 3.05 physiotherapists per practise in 1986 to 2.78 physiotherapists per practise in 1987
In the previous paragraph we referred to table 26, in which we could see that a lot of physiotherapists work part-time. This fact has to be taken into account when calculating the physiotherapist density. This physiotherapist density can be defined as the number of inhabitants per **full-time equivalent** physiotherapist. Full-time means five (working) days a week.
Tables 29 and 30 show that the average number of inhabitants per full-time equivalent physiotherapist in the Netherlands is 1904. The highest number of inhabitants per physiotherapist (the lowest density) are found in the province of Drenthe; the highest density in the provinces Utrecht and Noord-Holland (table 29).
The highest physiotherapist density can be found in the largest towns of the country (one full-time equivalent physiotherapist per 1649 inhabitants). Physiotherapist density is low in the rural areas. In figure 10 the physiotherapist density is shown on the lower spatial level of Economic Geographical Regions.

7.5. Recently graduated physiotherapists

In 1987 the NIVEL conducted research on recent graduates in physiotherapy and their experiences in the labour market. All physiotherapists who graduated in 1985 and 1986 were interviewed for that purpose.
The investigation revealed that unemployment rates among recent graduates was high (figure 11). Furthermore, many of them were working abroad (mainly in Germany) or as locums (table 31).
The high unemployment figures, and the fact that many recent graduates have not got a steady job, led to a situation in which many (60%) of them were in search of a (or another) job as a physiotherapist.
The rising unemployment rate among physiotherapists (among other reasons) led to the decision of the Minister of Education and Science to reduce the number of physiotherapy training schools (from 16 to 10) and to reduce the number of first-years students to 1496 in 1988.

7.6. Concepts

Physiotherapist - a paramedic authorized to practise as a physiotherapist

Remedial gymnast/masseur - a paramedic authorized to practise the profession of remedial gymnast/masseur. As a profession the predecessor of the profession of physiotherapist. In 1969 the first physiotherapist qualified since then the number of remedial gymnasts/masseurs slowly declined

Practising the profession of physiotherapist - the professional application, in pursuance of a referral by a medical practitioner, of one or more of the following methods of therapy:
a. kinesiotherapy
b. massage therapy
c. physical therapy in a more restricted sense

Practising the profession of remedial gymnast/masseur - the professional application, in pursuance of a referral by a medical practitioner, of one or more of the following methods of therapy:

a. kinesiotherapy
b. massage therapy

Assistant physiotherapist - physiotherapist employed by an independently established physiotherapist for a longer period of time

Locum - physiotherapist employed by an independently established physiotherapist for a short period of time (stand-in), for example in case of sickness, maternity leave etc.

Health centre - a joint establishment of at least one independently established GP, one district nurse and one social worker

Practising in primary health care - those professional activities of physiotherapists not performed on behalf on persons staying in nursing homes, hospitals, rehabilitation centres or institutions for the mentally handicapped, or policlinically treated by them in these institutions

Full-time equivalent physiotherapist - recalculated number of physiotherapists in a certain region, based on the number of half working days a physiotherapist works a week as registered in our survey. By full time we understand a working week of 10 half working days (approximately 40 hours)

Physiotherapist density - number of physiotherapists per 10,000 inhabitants

Economic Geographical Area - The Netherlands are subdivided in 129 EGAs, which are characterized by a high degree of intra-regional socio-economic homogeneity

Level of urbanization - typology of municipalities in which the degree (level) of urbanization is reflected (after J.J. Harts, 1979)

Rural areas	: areas with a centre of fewer than 5000 inhabitants and more than 20% of the male labour force employed in agriculture
Urbanized rural areas	: area with a centre of fewer than 30,000 inhabitants and more than 80% of the male labour force employed in the non-agricultural sector

Commuter municipality: municipality with a centre of fewer than 30,000 inhabitants and more than 30% of the male labour force commuting

Urban municipalities : municipalities with a built-up area of more than 2000 inhabitants/km^2 and an average population density of more than 500 inhabitants/km^2; usually more than 70% of the population in the built-up area. E.g.:

1. Small towns : municipalities with less than 30,000 inhabitants in the built-up area
2. Medium sized towns: municipalities with between 30,000 and 100,000 inhabitants in the built-up area
3. Large towns : municipalities with more than 100,000 inhabitants in the built-up area

Table 1: Number of independently practising general practitioners by sex, since 1970 on 1 January

	male		female		total	
	abs	%	abs	%	abs	%
1970	4266	97,1	127	2,9	4393	100,0
1971	4264	97,2	125	2,8	4389	100,0
1972	4290	97,2	122	2,8	4412	100,0
1973	4393	97,3	123	2,7	4516	100,0
1974	4438	97,2	127	2,8	4565	100,0
1975	4546	97,0	139	3,0	4685	100,0
1976	4678	96,8	153	3,2	4831	100,0
1977	4771	96,7	163	3,3	4934	100,0
1978	4879	96,5	178	3,5	5057	100,0
1979	4965	96,3	190	3,7	5155	100,0
1980	5036	95,9	215	4,1	5251	100,0
1981	5129	95,3	254	4,7	5383	100,0
1982	5194	94,8	284	5,2	5478	100,0
1983	5269	94,3	321	5,7	5590	100,0
1984	5337	93,0	400	7,0	5737	100,0
1985	5430	92,0	472	8,0	5902	100,0
1986	5588	91,0	552	9,0	6140	100,0
1987	5608	90,4	598	9,6	6206	100,0
1988	5633	89,8	642	10,4	6275	100,0

Figure 1: Development in the number of general practitioners since 1970 (1970 = 100)

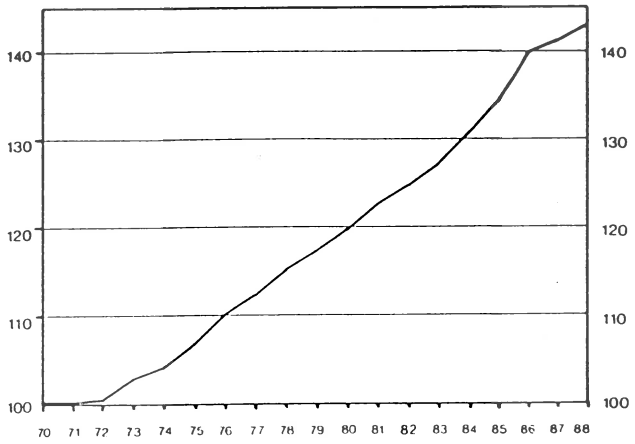

Figure 2: Development in the number of independently practising general practitioners by sex, since 1980 (1980 = 100)

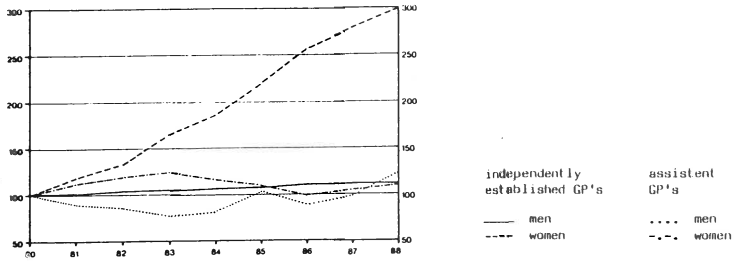

Table 2: Number of newly established and retired general practitioners since 1970, by sex

	Newly establishing general practitioners			Retiring general practitioners			Establishment balance		
	male	female	total	male	female	total	male	female	total
1970	168	8	176	170	10	180	- 2	- 2	- 4
1971	192	5	197	166	8	174	+ 26	- 3	+ 23
1972	287	12	299	184	11	195	+103	+ 1	+104
1973	234	14	248	189	10	199	+ 45	+ 4	+ 49
1974	313	15	328	205	3	208	+108	+12	+120
1975	349	21	370	217	7	224	+132	+14	+146
1976	304	21	325	211	11	222	+ 93	+10	+103
1977	336	27	363	228	12	240	+108	+15	+123
1978	328	18	346	242	6	248	+ 86	+12	+ 98
1979	270	30	300	199	5	204	+ 71	+25	+ 96
1980	312	50	362	219	11	230	+ 93	+39	+132
1981	232	36	268	167	6	173	+ 65	+30	+ 95
1982	238	48	286	163	11	174	+ 75	+37	+112
1983	235	96	331	167	17	184	+ 68	+79	+147
1984	237	86	323	144	14	158	+ 93	+72	+165
1985	294	96	390	136	16	152	+158	+80	+238
1986	144	52	196	124	6	130	+ 20	+46	+ 66
1987	140	60	200	115	16	131	+ 25	+44	+ 69

Table 5: Number of general practitioners by type of practice, since 1970

	Solopractice		Duopractice		Group practice		Health Centre		Total	
Jaar	abs	%	abs	%	abs	%	abs	%	abs	%
1970	3794	86,4	529	12,0	53	1,2	17	0,4	4393	100,0
1971	3766	85,8	528	12,0	71	1,6	24	0,6	4389	100,0
1972	3726	84,5	575	13,0	80	1,8	31	0,7	4412	100,0
1973	3725	82,5	626	13,9	113	2,5	52	1,1	4516	100,0
1974	3698	81,0	654	14,3	131	2,9	82	1,8	4565	100,0
1975	3623	77,3	787	16,8	162	3,5	113	2,4	4685	100,0
1976	3590	74,3	915	19,0	184	3,8	142	2,9	4831	100,0
1977	3560	72,1	995	20,2	192	3,9	187	3,8	4934	100,0
1978	3534	69,9	1092	21,6	209	4,1	222	4,4	5057	100,0
1979	3497	67,8	1167	22,6	245	4,8	246	4,8	5155	100,0
1980	3491	66,5	1237	23,5	257	4,9	266	5,1	5251	100,0
1981	3503	65,1	1318	24,5	260	4,8	302	5,6	5383	100,0
1982	3498	63,8	1376	25,1	277	5,1	327	6,0	5478	100,0
1983	3523	63,0	1387	24,8	315	5,7	365	6,5	5590	100,0
1984	3510	61,2	1510	26,3	316	5,5	401	7,0	5737	100,0
1985	3465	58,7	1669	28,3	340	5,8	428	7,2	5902	100,0
1986	3447	56,1	1863	30,4	388	6,3	442	7,2	6140	100,0
1987	3429	55,3	1900	30,6	423	6,8	454	7,3	6206	100,0
1988	3417	54,5	1958	31,2	427	6,8	473	7,5	6275	100,0

Table 6: Age distribution of general practitioners by type of practice on 1 January 1988

Age	Solopractice		Duopractice		Group practice		Health centre	
	abs	%	abs	%	abs	%	abs	%
younger than 30	15	0,4	16	0,8	4	0,9	2	0,4
30-34	368	10,8	401	20,5	64	15,0	101	21,4
35-39	842	24,6	620	31,7	116	27,2	175	37,0
40-44	780	22,8	401	20,5	94	22,0	122	25,8
45-49	392	11,5	175	8,9	56	13,1	37	7,8
50-54	285	8,3	95	4,8	33	7,7	13	2,7
55-59	350	10,3	106	5,4	31	7,3	14	3,0
60-64	313	9,2	121	6,2	26	6,1	8	1,7
65-69	48	1,4	19	1,0	2	0,5	1	0,2
70 years and older	24	0,7	4	0,2	1	0,2	-	-
Total	3417	100,0	1958	100,0	427	100,0	473	100.0

Table 7: Number of general practitioners with dispensaries, since 1970

	Dispensing general practitioners		Non-dispensing general practitioners		Total	
	abs	%	abs	%	abs	%
1970	1365	31,1	3028	68,9	4393	100,0
1971	1358	30,9	3031	69,1	4389	100,0
1972	1345	30,5	3067	69,5	4412	100,0
1973	1354	30,0	3162	70,0	4516	100,0
1974	1343	29,4	3222	70,6	4565	100,0
1975	1332	28,4	3353	71,6	4685	100,0
1976	1324	27,4	3507	72,6	4831	100,0
1977	1307	26,5	3627	73,5	4934	100,0
1978	1275	25,2	3782	74,8	5057	100,0
1979	1219	23,6	3936	76,4	5155	100,0
1980	1159	22,1	4092	77,9	5251	100,0
1981	1086	20,2	4297	79,8	5383	100,0
1982	1023	18,7	4455	81,3	5478	100,0
1983	999	17,9	4591	82,1	5590	100,0
1984	958	16,7	4779	83,3	5737	100,0
1985	909	15,4	4993	84,6	5902	100,0
1986	853	13,9	5287	86,1	6140	100,0
1987	815	13,1	5391	86,9	6206	100,0
1988	766	12,2	5509	87,8	6275	100,0

Table 8: Number of general practitioners with dispensaries by level of urbanization, on 1 January 1988

	Dispensing GP's		Non-dispensing GP's	
	abs	%	abs	%
rural areas	347	45,3	354	6,4
urbanized rural areas	307	40,1	1114	20,2
commuter municipalities	61	8,0	816	14,8
small towns	30	3,9	634	11,5
medium sized towns	14	1,8	978	17,8
large towns	7	0,9	1613	29,3
The netherlands	766	100,0	5509	100,0

Table 9: Number of general practitioners by level of urbanization and type of practice, on 1 January 1988

Level of Urbanization	Solopractice		Duopractice		Group practice		Health centre		Total	
	abs	%	abs	%	abs	%	abs	%	abs	%
rural areas	411	58,6	238	34,0	34	4,8	18	2,6	701	100,0
urbanized rural areas	640	45,0	575	40,5	123	8,7	83	5,8	1421	100,0
commuter municipalities	496	56,6	236	26,9	39	4,4	106	12,1	877	100,0
small towns	350	52,7	226	34,0	65	9,8	23	3,5	664	100,0
medium sized towns	543	54,7	285	28,7	84	8,5	80	8,1	992	100,0
large towns	977	60,3	398	24,6	82	5,1	163	10,0	1620	100,0
The Netherlands	3417	54,5	1958	31,2	427	6,8	473	7,5	6275	100,0

Figure 5: General practitioner-density (number of inhabitants per independently practising GP) per EGA (Economic Geographical Area) on 1 January 1988

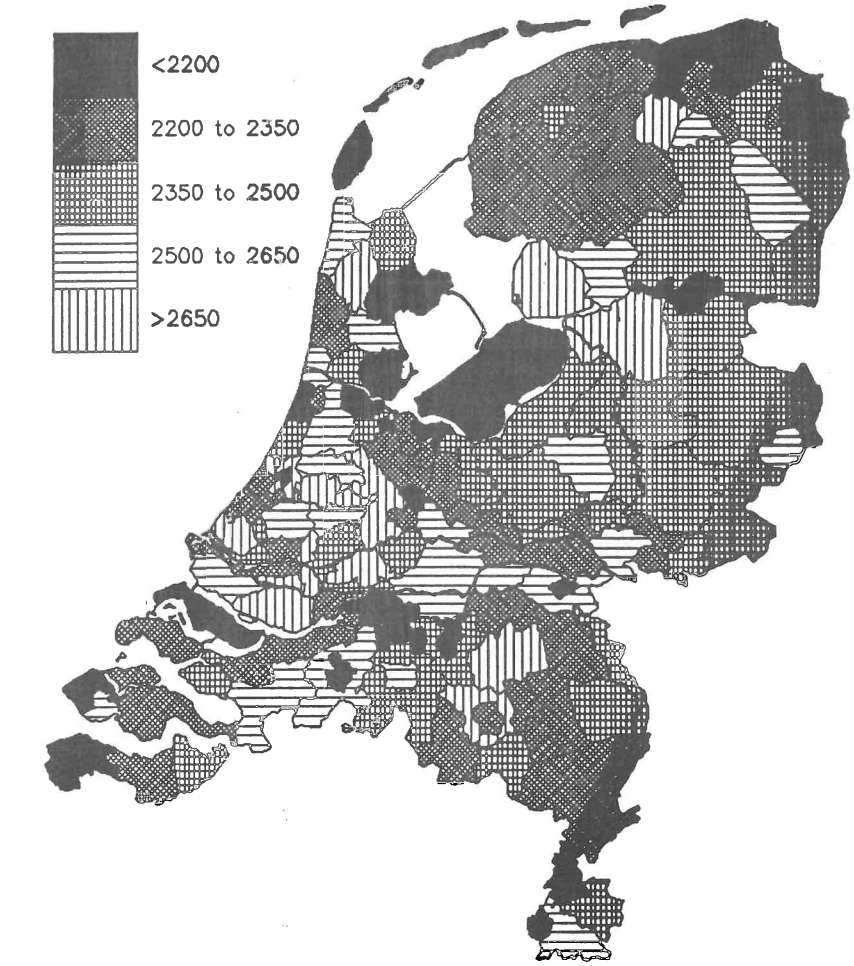

Table 10: Number of inhabitants per general practitioner per province, on 1 January 1988

Province	Number of inhabitants	Number of GP's			Inhabitants per GP
		male	female	total	
Groningen	556.757	212	25	237	2349
Friesland	599.104	242	20	262	2287
Drenthe	436.586	180	5	185	2360
Overijssel	1.009.997	379	24	403	2506
Flevoland	193.739	73	15	88	2202
Gelderland	1.783.610	679	74	753	2369
Utrecht	965.229	362	55	417	2315
Noord-Holland	2.352.888	927	150	1078	2183
Zuid-Holland	3.208.414	1155	162	1317	2436
Zeeland	355.501	144	9	153	2324
Noord-Brabant	2.156.280	845	68	913	2362
Limburg	1.095.424	434	35	469	2336
The Netherlands	14.713.529	5633	642	6275	2345

Table 11: Number of inhabitants per general practitioner by level of urbanization, on 1 January 1988

Level of urbanization	Number of inhabitants	Number of GP's			Inhabitants per GP
		male	female	total	
rural areas	1.698.264	657	44	701	2423
urbanized rural areas	3.389.494	1300	121	1421	2385
commuter municipalities	2.151.885	780	97	780	2454
small towns	1.606.208	609	55	609	2419
medium sized towns	2.335.077	902	90	902	2354
large towns	3.532.601	1385	235	1385	2181
The Netherlands	14.713.529	5633	642	5633	2345

Table 12: Number of recently graduated GP's in search of practice, on 1 January 1988

Year of graduation	Number of graduates	Number of GP's in search of	
	absolute	absolute	as % of the total no. of graduates
1974	31	-	-
1975	173	-	-
1976	340	2	0.6
1977	458	4	0.9
1978	491	4	0.8
1979	464	1	0.2
1980	442	6	1.4
1981	420	6	1.4
1982	450	17	3.8
1983	474	49	7.2
1984	497	93	9.9
1985	485	148	19.2
1986	438	148	33.8
1987	477	268	56.2
Total	5.640	632	11.2

Table 13: Outline of activities of all graduated general practitioners since 1974, by year of graduation, on 1 January 1 1988

Cohort	Indepently established		Assistent GP's*		Aspiring independent establishment				Renounced independent establishment				Other: abroad, refusals		Total	
					Not searching at the time		Searching at the time		Registration not expired		Registration expired					
	abs	%	abs	%	abs	%	abs	%	abs	%	abs	%	abs	%	abs	%
1974	20	64,5	-	-	-	-	-	-	2	6,5	9	29,0	-	-	31	100,0
1975	111	64,2	2	1,1	-	-	-	-	12	6,9	47	27,2	1	0,6	173	100,0
1976	227	66,7	3	0,9	-	-	2	0,6	20	5,9	86	25,3	2	0,6	340	100,0
1977	305	66,6	8	1,8	1	0,2	1	0,2	40	8,7	100	21,8	3	0,7	458	100,0
1978	318	64,8	9	1,8	5	1,0	4	0,8	31	6,3	121	24,7	3	0,6	491	100,0
1979	295	63,6	12	2,6	-	-	1	0,2	39	8,4	114	24,6	3	0,6	464	100,0
1980	268	60,6	6	1,4	2	0,4	6	1,4	39	8,8	111	25,1	10	2,3	442	100,0
1981	266	63,3	14	3,3	2	0,5	6	1,4	34	8,1	93	22,2	5	1,2	420	100,0
1982	264	58,7	13	2,9	10	2,2	17	3,8	33	7,3	105	23,3	8	1,8	450	100,0
1983	282	59,5	19	4,0	5	1,1	28	5,9	120	25,3	-	-	20	4,2	474	100,0
1984	256	51,5	33	6,6	20	4,0	46	9,3	123	24,8	-	-	19	3,8	497	100,0
1985	212	43,7	39	8,0	23	4,8	86	17,7	112	23,1	-	-	13	2,7	485	100,0
1986	101	23,1	57	13,0	24	5,5	132	30,1	85	19,4	-	-	39	8,9	438	100,0
1987	23	4,8	54	11,3	63	13,2	248	52,0	40	8,4	-	-	49	10,3	477	100,0
Total	2948	52,3	269	4,8	155	2,8	577	10,2	730	12,9	786	13,9	175	3,1	5640	100,0

* Assistent GP's who indicates they were still aspiring independent establishment were counted as assistent GP's not as GP's aspiring independent establishment

Table 14: Absolute and relative number of independently established or clinically employed midwifes since 1970

	independently established		clinically employed		Total	
	abs	%	abs	%	abs	%
1970	643	87,5	92	12,5	735	100,0
1971	639	86,9	96	13,1	735	100,0
1972	628	84,3	117	15,7	745	100,0
1973	639	83,0	131	17,0	770	100,0
1974	626	81,6	141	18,4	767	100,0
1975	621	80,9	147	19,1	768	100,0
1976	602	79,8	153	20,2	755	100,0
1977	583	78,0	164	22,0	747	100,0
1978	564	76,6	172	23,4	736	100,0
1979	544	76,4	168	23,6	712	100,0
1980	552	76,7	168	23,3	720	100,0
1981	556	76,7	169	23,3	725	100,0
1982	555	75,8	177	24,2	732	100,0
1983	567	76,7	172	23,3	739	100,0
1984	593	78,8	160	21,2	753	100,0
1985	625	79,3	163	20,7	788	100,0
1986	665	80,0	166	20,0	831	100,0
1987	682	80,2	168	19,8	850	100,0
1988	711	81,1	166	18,9	877	100,0

Table 15: Number of newly established and retired independently established midwives, since 1970

	newly established	retired	Balance
1970	40	44	- 4
1971	22	33	-11
1972	46	35	+11
1973	37	50	-13
1974	33	38	- 5
1975	33	52	-19
1976	29	48	-19
1977	23	42	-19
1978	25	45	-20
1979	48	40	+ 8
1980	40	36	+ 4
1981	24	25	- 1
1982	35	23	+12
1983	52	26	+26
1984	61	29	+32
1985	74	34	+40
1986	51	34	+17
1987	70	41	+29

Figure 6: Relative figures on establishment and retirement of independently established midwives, since 1970

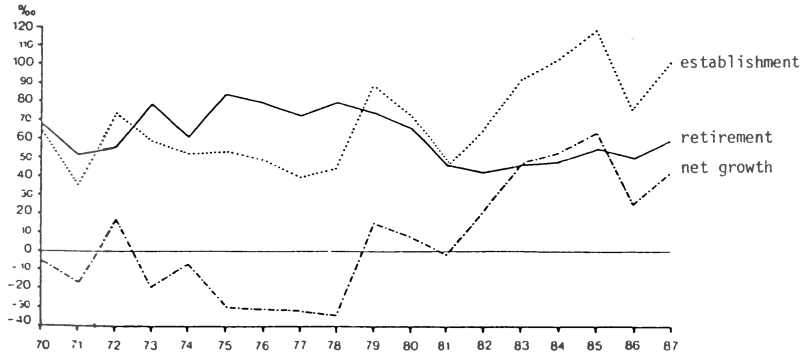

Table 16: Method of establishment in practice of independent midwives, since 1970

	free establishment		partnership		take-over		Total	
	abs	%	abs	%	abs	%	abs	%
1970	14	35,0	5	12,5	21	52,5	40	100,0
1971	7	31,8	5	22,7	10	45,5	22	100,0
1972	20	43,5	7	15,2	19	41,3	46	100,0
1973	13	35,1	6	16,2	18	48,7	37	100,0
1974	6	18,2	9	27,3	18	54,5	33	100,0
1975	6	18,2	8	24,2	19	57,6	33	100,0
1976	4	13,8	15	51,7	10	34,5	29	100,0
1977	4	17,4	6	26,1	13	56,5	23	100,0
1978	2	8,0	9	36,0	14	56,0	25	100,0
1979	11	22,9	25	52,1	12	25,0	48	100,0
1980	10	25,0	17	42,5	13	32,5	40	100,0
1981	4	16,7	13	54,2	7	29,1	24	100,0
1982	7	20,0	18	51,4	10	28,6	35	100,0
1983	19	36,5	20	38,5	13	25,0	52	100,0
1984	19	31,1	31	50,9	11	18,0	61	100,0
1985	17	23,0	49	66,2	8	10,8	74	100,0
1986	11	21,6	30	58,8	10	19,6	51	100,0
1987	5	7,1	52	74,3	13	18,6	70	100,0

Table 17: Age distribution of independently established and clinically employed midwifes on 1 January 1988

Age	independently established		clinically employed		total	
	abs	%	abs	%	abs	%
younger than 25 years	25	3,5	11	6,6	36	4,1
25-29	134	18,8	31	18,7	165	18,8
30-34	118	16,6	37	22,3	155	17,7
35-39	107	15,1	26	15,7	133	15,2
40-44	99	13,9	22	13,3	121	13,8
45-49	61	8,6	18	10,8	79	9,0
50-54	55	7,7	12	7,2	67	7,6
55-59	61	8,6	8	4,8	69	7,9
60-64	41	5,8	1	0,6	42	4,8
65-69	10	1,4	-	-	10	1,1
Total	711	100,0	166	100,0	877	100,0

Figure 7: Age distribution of independently established and clinically employed midwifes on 1 January 1988

Table 18: Number of independently practising midwives by type of practice, since 1970

	Solopractice		Duopractice		Group practice		Total	
	abs	%	abs	%	abs	%	abs	%
1970	586	91,1	45	7,0	12	1,9	643	100,0
1971	572	89,5	54	8,5	13	2,0	639	100,0
1972	557	88,7	59	9,4	12	1,9	628	100,0
1973	568	88,9	56	8,8	15	2,3	639	100,0
1974	551	88,0	59	9,4	16	2,6	626	100,0
1975	544	87,6	59	9,5	18	2,9	621	100,0
1976	517	85,8	63	10,5	22	3,7	602	100,0
1977	486	83,4	70	12,0	27	4,6	583	100,0
1978	463	82,1	74	13,1	27	4,8	564	100,0
1979	438	80,5	79	14,5	27	5,0	544	100,0
1980	411	74,5	114	20,6	27	4,9	552	100,0
1981	403	72,5	132	23,7	21	3,8	556	100,0
1982	399	71,9	132	23,8	24	4,3	555	100,0
1983	387	68,3	152	26,8	28	4,9	567	100,0
1984	386	65,1	172	29,0	35	5,9	593	100,0
1985	369	59,0	216	34,6	40	6,4	625	100,0
1986	343	51,6	244	36,7	78	11,7	665	100,0
1987	329	48,2	264	38,7	89	13,1	682	100,0
1988	311	43,7	254	35,8	146	20,5	711	100,0

Table 19: Age distribution of independently established midwives by type of practice, on 1 January 1988

Age	Solopractice		Duopractice		Group practice	
	abs	%	abs	%	abs	%
younger than 25 years	6	1,9	9	3,6	10	6,8
25-29	29	9,3	64	25,2	41	28,1
30-34	33	10,6	50	19,7	35	24,0
35-39	43	13,8	42	16,5	22	15,1
40-44	51	16,4	33	13,0	15	10,3
45-49	40	12,9	16	6,3	5	3,4
50-54	37	11,9	11	4,3	7	4,8
55-59	44	14,1	12	4,7	5	3,4
60-64	21	6,8	14	5,5	6	4,1
65-69	7	2,3	3	1,2	-	-
Total	311	100,0	254	100,0	146	100,0

Figure 8: Number of women in fertile age (15-39 years) per independently practising midwife by EGA, on 1 January 1988

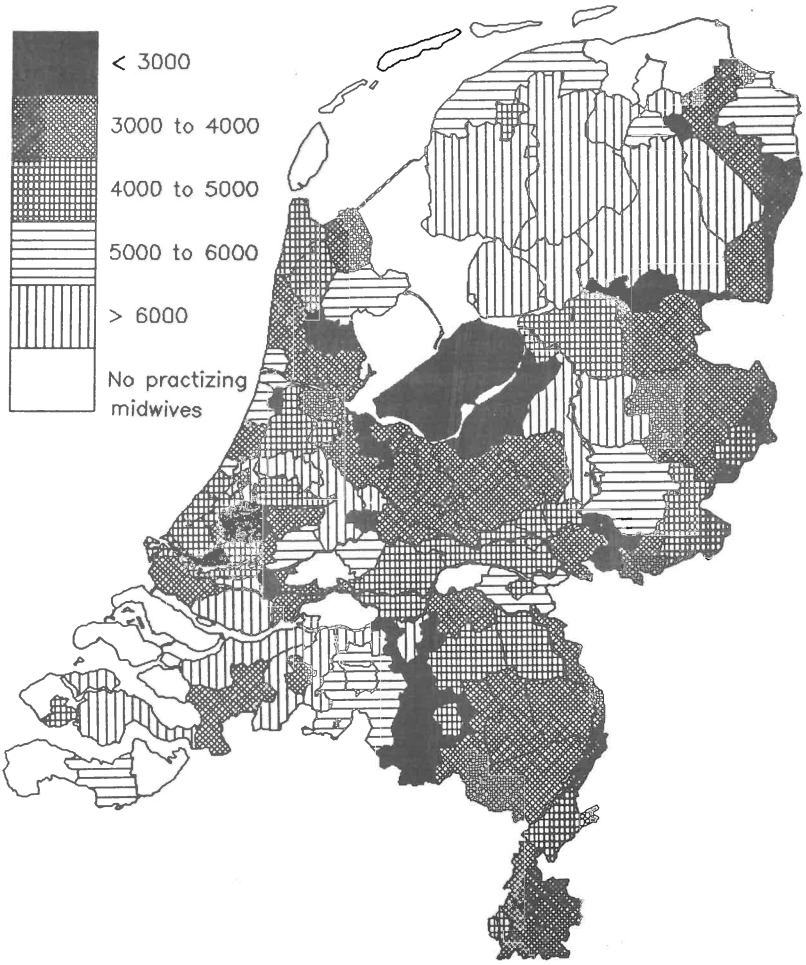

Table 20: Number of women of fertile age (15-39 years) per independent midwife, per province, on 1 January 1988

Province	Number of women in fertile age	Number of independently established midwives	Number of women in fertile age per midwife
Groningen	113.553	18	6309
Friesland	115.023	16	7189
Drenthe	83.523	17	4913
Overijssel	198.474	46	4315
Flevoland	41.845	14	2989
Gelderland	360.262	88	4094
Utrecht	205.350	50	4107
Noord-Holland	482.440	132	3655
Zuid-Holland	641.213	159	4033
Zeeland	65.930	7	9419
Noord-Brabant	440.295	105	4193
Limburg	219.942	59	3728
The Netherlands	2.967.850	711	4174

Table 21: Number of women of fertile age (15-39 years) per independent midwife, by level of urbanization, on 1 January 1988

Level of urbanization	Number of women in fertile age	Number of independently established midwives	Number of women in fertile age per midwife
rural areas	327.712	36	9103
urbanized rural areas	676.179	166	4073
commuter municipalities	422.040	110	3837
small towns	325.714	96	3393
medium sized towns	475.186	129	3684
large towns	741.019	174	4259
The Netherlands	2.967.850	711	4174

Table 22: Activities of midwives, graduated since 1984, on 1 January 1988

Activities	graduated in							
	1984		1985		1986		1987	
	abs	%	abs	%	abs	%	abs	%
independently established	32	53,4	42	64,6	21	33,3	26	41,3
clinically employed	12	20,0	6	9,2	14	22,2	6	9,5
assistent	3	5,0	8	12,3	8	12,7	5	7,9
locum tenens	6	10,0	5	7,7	11	17,5	19	30,2
not yet practising	2	3,3	2	3,1	5	7,9	7	11,1
not practising anymore	5	8,3	2	3,1	4	6,4	-	-
Total	60	100,0	65	100,0	63	100,0	63	100,0

Table 23: Number of physiotherapists practising in primary health care, by sex, since 1985 on 1 January 1987

	male		female		unknown		total	
	abs	%	abs	%	abs	%	abs	%
1985*	4442	50,0	4308	48,4	139	1,6	8889	100,0
1986*	4504	50,2	4323	48,2	139	1,6	8966	100,0
1987**	4736	52,7	4250	47,3	-	-	8986	100,0

* Comparison of data
** Own survey

Table 24: Age distribution of physiotherapists practising in primary health care, by sex, on 1 January 1987

Age	male		female		total	
	abs	%	abs	%	abs	%
younger than 25 years	7	0,2	28	0,7	35	0,4
25-29	444	9,4	730	17,2	1174	13,1
30-34	1387	29,3	1347	31,7	2734	30,4
35-39	1332	28,1	885	20,8	2217	24,7
40-44	851	18,0	558	13,1	1409	15,7
45-49	359	7,6	346	8,1	705	7,9
50-54	163	3,4	143	3,4	306	3,4
55-59	74	1,6	94	2,2	168	1,9
60-64	54	1,1	64	1,5	118	1,3
65-69	34	0,7	33	0,8	67	0,7
70 years and older	28	0,6	20	0,5	48	0,5
Total	4733	100,0	4248	100,0	8981*	100,0

* Data on age are lacking for 5 physiotherapists

Figure 9: Age distribution of physiotherapists practising in primary health care, by sex, on 1 January 1987

Table 25: Number of physiotherapists practising in primary health care by type of employment and sex, on 1 January 1987

	male (n=4736)		female (n=4250)		total (n=8986)	
	abs	%	abs	%	abs	%
independently established	3844	81,2	2609	61,4	6453	71,8
assistent	901	19,0	1616	38,0	2517	28,0
employed in health centre	45	1,0	76	1,8	121	1,3

Table 26: Relative number of physiotherapists, by number of half working days and type of employment, on 1 January 1987

Number of half working days	independently practising			assistent			employed in health centre			total		
	m	f	total	m	f	total	m	f	total	m	f	total
0,5- 2	2,0	5,2	3,2	5,1	10,3	8,4	-	-	-	2,6	7,1	4,7
2,5- 4	3,2	15,3	8,1	8,4	23,0	17,8	2,3	1,3	1,7	4,2	18,1	10,7
4,5- 6	12,3	28,0	18,6	17,5	25,7	22,8	11,4	38,2	28,3	13,4	27,4	20,0
6,5- 8	6,6	17,2	10,9	13,2	19,6	17,3	29,5	48,7	41,7	8,1	18,6	13,1
8,5-10	67,5	32,1	53,3	52,0	20,4	31,7	54,5	11,8	27,5	64,4	27,2	46,9
more than 10	8,4	2,2	5,9	3,8	1,0	2,0	2,3	-	0,8	7,3	1,6	4,6
Total (%)	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0
Total (abs)	3617	2422	6039	844	1509	2353	44	76	120	4455	3962	8417*
Mean number of half working days	9,0	6,8	8,1	7,9	5,9	6,6	8,5	7,0	7,5	8,8	6,5	7,7

* Are lacking concerning 569 (6,3%) physiotherapists

Table 27: Age distribution of physiotherapists practising in primary health care by type of employment, on 1 January 1987

Age	independently practising		assistent		employed in health centre	
	abs	%	abs	%	abs	%
20-24 years	4	0,1	31	1,2	-	-
25-29	475	7,4	697	27,7	25	20,7
30-34	1759	27,3	968	38,5	52	43,0
35-39	1756	27,2	447	17,8	32	26,4
40-44	1196	18,5	210	8,3	10	8,3
45-49	616	9,5	94	3,7	-	-
50-54	264	4,1	42	1,7	2	1,6
55-59	159	2,5	12	0,5	-	-
60-64	113	1,7	7	0,3	-	-
65-69	62	1,0	5	0,2	-	-
70 years and older	46	0,7	2	0,1	-	-
Total	6450	100,0	2515	100,0	121	100,0

Table 28: Number of physiotherapists per practice, since 1985

Number of independenly established physio-therapists per practice	number of practices					
	1985		1986		1987	
	abs	%	abs	%	abs	%
1	987	34,1	1100	36,2	1295	39,0
2	583	20,2	608	20,0	682	20,5
3	401	13,9	403	13,3	472	14,2
4	284	9,8	307	10,1	327	9,8
5	213	7,4	208	6,9	175	5,3
6	141	4,9	129	4,2	139	4,2
7	91	3,1	91	3,0	88	2,6
8	41	1,4	51	1,7	39	1,2
9	53	1,8	44	1,4	40	1,2
10	29	1,0	27	0,9	21	0,6
11-15	56	1,9	51	1,7	36	1,1
16 or more	13	0,5	17	0,6	11	0,3
Total	2892	100,0	3036	100,0	3325	100,0

Figure 10: Physiotherapist density (number of inhabitants per full-time equivalent physiotherapist) per EGA ,on 1 January 1987

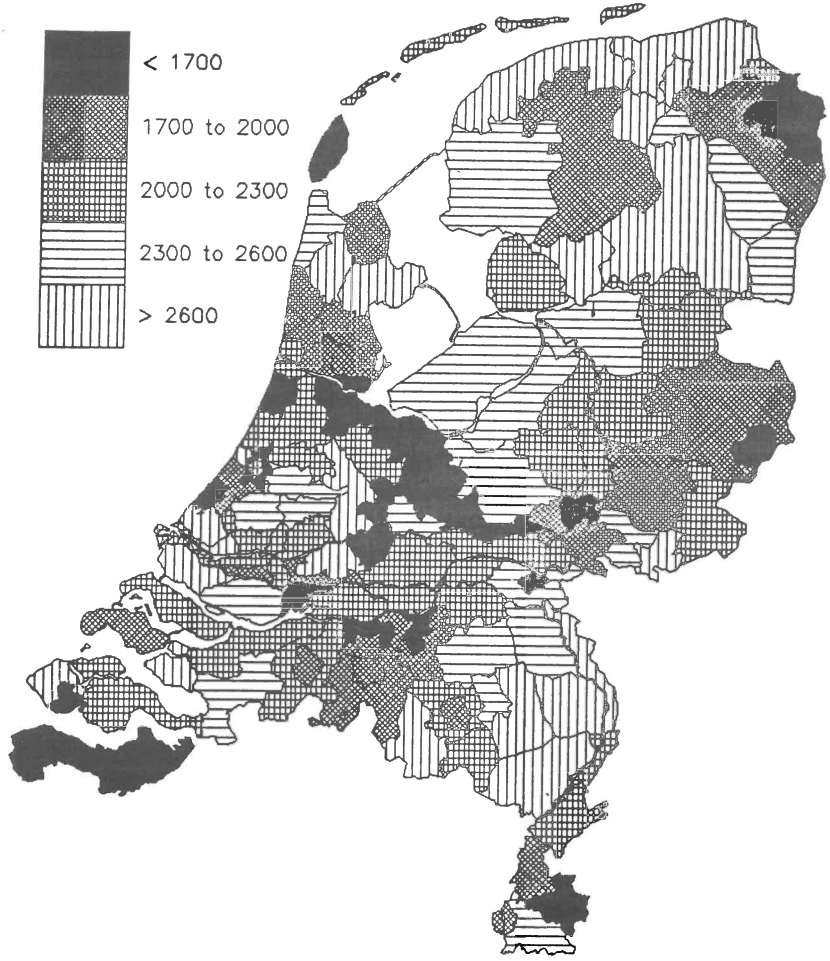

Table 29: Number of inhabitants per full-time equivalent physiotherapist practising in primary health care by province, on 1 January 1987

Province	number of inhabitants	number of full-time equivalent physiotherapists	number of inhabitants per full-time equivalent physiotherapist
Groningen	558.116	282,16	1978
Friesland	598.889	270,40	2215
Drenthe	434.042	169,60	2559
Overijssel	1.003.812	564,32	1779
Flevoland	185.167	78,20	2368
Gelderland	1.771.392	871,65	2032
Utrecht	952.838	606,13	1572
Noord-Holland	2.334.305	1452,39	1607
Zuid-Holland	3.185.585	1578,23	2018
Zeeland	355.343	213,89	1661
Noord-Brabant	2.139.246	1039,39	2058
Limburg	1.091.138	548,80	1988
The Netherlands	14.609.873	7675,16	1904

Table 30: Number of inhabitants per full-time equivalent physiotherapist practising in primary health care by level of urbanization, by January 1 1987

Level of urbanization	number of inhabitants	number of full-time equivalent physiotherapists	number of inhabitants per full-time equivalent physiotherapist
rural areas	1.688.091	664,36	2541
urbanized rural areas	3.357.448	1585,57	2118
commuter municipalities	2.128.381	1192,42	1785
small towns	1.594.851	837,24	1905
medium sized towns	2.321.980	1260,87	1842
large towns	3.519.122	2134,70	1649
The Netherlands	14.609.873	7675,16	1904

Figure 11: Activities of physiotherapists, graduated in 1985 and 1986 on 1 January 1987

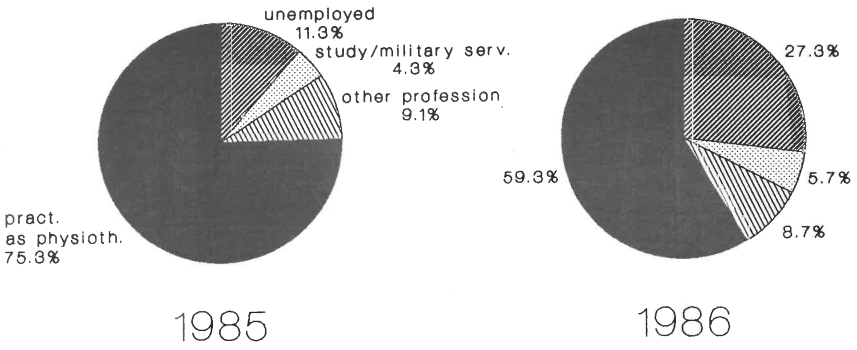

Table 31: Relative number of physiotherapists, graduated in 1985 and 1986 by type of function/employment, year of graduation and sex, on 1 January 1987

Type of function/ employment	1985			1986		
	male (N = 428)	female (N = 546)	Total (N = 974)	male (N = 445)	female (N = 614)	Total (N = 1059)
Practising as a physiotherapist						
independently established	6,8%	3,3%	4,8%	1,3%	1,5%	1,4%
assistent	13,8%	16,8%	15,5%	8,1%	10,6%	9,5%
locum tenens	9,8%	17,0%	13,9%	14,8%	22,0%	19,0%
intramurally practising	17,8%	21,1%	19,6%	8,5%	13,4%	11,3%
practising abroad	21,7%	22,2%	22,0%	17,5%	15,3%	16,2%
other function as a physiotherapist	9,8%	1,8%	5,3%	6,5%	1,6%	3,7%
Not practising as a physiotherapist	26,2%	23,6%	24,7%	45,4%	38,9%	41,6%

8. CONTOURMAPS

Figure 12: Contourmap of the Dutch provinces

Names of the Dutch provinces and number of inhabitants by January 1 1988

	number of inhabitants
1. Groningen	556.757
2. Friesland	599.104
3. Drenthe	436.586
4. Overijssel	1.009.997
5. Flevoland	193.739
6. Gelderland	1.783.610
7. Utrecht	965.229
8. Noord-Holland	2.352.888
9. Zuid-Holland	3.208.414
10. Zeeland	355.501
11. Noord-Brabant	2.156.280
12. Limburg	1.095.424

Figure 13: Contourmap of Economic Geographic Areas

Economic Geographic Area's and their number of inhabitants on 1 January 1988

		number of inhabitants
1	Groninger Hoogel. en Noordel. Westerkw.	77.267
2	Appingedam Delfzijl	36.472
3	Groninger Oldambt	61.427
4	Groninger Veenkoloniën	144.540
5	Groninger Zuidelijk Westerkwartier	37.568
6	Groninger Centrale Weidestreek	13.214
7	Stad Groningen	167.929
8	Randgebied Stad Groningen	18.340
9	Fries Zandgebied	240.683
10	Fries Weidegebied	147.860
11	Leeuwarden	85.173
12	Friese Bouwstreek	115.662
13	Friese Waddeneilanden	9.726
14	Noorddrents Randgebied	33.326
15	Emmen/Schoonebeek	100.008
16	Overige Gemeenten Drentse Veenkoloniën	52.803
17	Drentse Zandgronden	153.205
18	Zuiddrents Randgebied	97.244
19	Noordwest-Overijssel	38.151
20	IJssel-, Vecht-delta	198.923
21	Noordoost-Overijssel	84.702
22	Zuidwest-Overijssel	133.085
23	Enschede	144.695
24	Overige Gemeenten in Twente	410.441
25	Urk	12.231
26	De Lijmers	91.507
27	Oude-IJsselgebied (westelijk deel)	73.347
28	Overige gem. westelijke Achterhoek	121.605
29	Oude-IJsselgebied (oostelijk deel)	48.147
30	Overige gem. oostelijke Achterhoek	99.770
31	Gelderse Vallei	174.519
32	IJsselmeerkust	145.983
33	Apeldoorn	146.337
34	Overige gem. oostelijke Veluwezoom	108.217
35	Arnhem	128.107
36	Overige gem. zuidelijke Veluwezoom	114.509
37	Oostelijke Betuwe	108.418
38	Westelijke Betuwe	103.525
39	Nijmegen	145.816
40	Gebieden om Nijmegen	100.083
41	Land van Maas en Waal	31.197
42	Bommelerwaard	42.523
43	Utrechtse Vallei en Eemgebied	205.667
44	Utrechtse Heuvelrug	221.739
45	Utrechts Krommerijngebied	55.200
46	Nieuwegein/IJsselstein	76.168
47	Stad Utrecht	230.373
48	Vechtstreek en Plassengebied in Utrecht	88.845
49	Utrechts Weidegebied	87.237
50	Texel	12.690
51	Wieringen/Wieringermeer	19.708
52	Overige gem. kop van Noord-Holland	84.066
53	Westelijk West-Friesland	97.622
54	Midden- en oostelijk West-Friesland	171.028
55	Noord-Kennemerland	182.979
56	Noord-Hollands Midden-gewest	22.829
57	Waterland	114.322
58	Zaanstreek	141.016
59	IJmond	124.895
60	Haarlem	148.740
61	Overige gem. Zuid-Kennemerland	64.822
62	Noord-Hollandse Meerlanden	140.049
63	Amsterdam	691.738
64	Zuidelijk Randgebied Amsterdam	99.248
65	Vechtstreek in Noord-Holland	39.399
66	Hilversum	85.150
67	Overige gem. in het Gooi	112.587
68	Zuidhollandse Bollenstreek	104.138
69	Katwijk/Rijnsburg/Valkenburg	55.680
70	Leiden	107.893
71	Randgebied Leiden	75.501

Economic Geographic Area's and their number of inhabitants on 1 January 1988

		number of inhabitants
72	Noordelijke Veenstreek in Zuid-Holland	50.064
73	Rijnstreek Zuid-Holland	134.367
74	Gouda en omstreken	107.340
75	Krimpenerwaard	51.992
76	Industriegebied Alblasserwaard	119.975
77	Overige gem. Alblasserwaard	32.447
78	Vijfheerenlanden	50.344
79	's-Gravenhage	444.313
80	Randgebied 's-Gravenhage	147.837
81	Westland	104.144
82	Delft	88.074
83	Midden Zuid-Holland	156.895
84	Rotterdam	574.299
85	Ind. geb. ten noorden van de Nw. Waterweg	177.415
86	Westelijk IJsselmonde	36.880
87	Oostelijk IJsselmonde	106.233
88	Oostelijk randgebied Rotterdam	103.100
89	Eiland van Dordrecht	107.871
90	Hoeksche Waard	77.361
91	Voorne-Putten en Rozenburg	151.649
92	Goeree en Overflakkee	42.602
93	Schouwen-Duiveland	29.730
94	Sint Philipsland en Tholen	21.293
95	Kanaalzone Walcheren	83.648
96	Overige gemeenten Walcheren	25.634
97	Noord- en Zuid-Beveland	87.869
98	West-Zeeuwsch-Vlaanderen	24.923
99	Kanaalzone Zeeuwsch-Vlaanderen	56.312
100	Oost-Zeeuwsch-Vlaanderen	26.092
101	N.W. Zeekleigebied in Noord-Brabant	73.557
102	Bergen op Zoom/Roosendaal e.o.	195.834
103	Breda	120.212
104	Gebied om Breda	158.100
105	Land van Altena	48.256
106	Langstraat	62.285
107	Tilburg	154.425
108	Gebied om Tilburg	155.064
109	's-Hertogenbosch/Vught	113.573
110	Gebied om 's-Hertogenbosch	113.262
111	Maaskant	100.915
112	Midden-Meijerij	133.538
113	Eindhoven	191.002
114	Randgebied Eindhoven	146.712
115	Industriegebied Helmond	96.043
116	Kempenland	64.386
117	Valkenswaard en oostelijke randgeb. gem.	63.230
118	Brabantse Peel	85.807
119	Land van Cuyk	80.079
120	Noord-Limburg	118.807
121	Industriegebied Venlo	100.228
122	Midden-Limburg ten oosten van de Maas	102.169
123	Midden-Limburg ten westen van de Maas	142.756
124	Westelijke Mijnstreek	160.936
125	Oostelijke Mijnstreek	267.034
126	Maastricht	115.782
127	Overige gemeenten Zuid-Limburg	87.712
128	Noordoostpolder	37.795
129	Zuidelijke IJsselmeerpolders	143.713

9. LITERATURE

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