research program
1987

RESEARCH PROGRAM 1987

OF THE

NETHERLANDS INSTITUTE OF PRIMARY HEALTH CARE

March, 1987

Netherlands Institute of Primary Health Care
P.O. Box 1568 3500 BN Utrecht The Netherlands

CONTENTS

1. PRIMARY HEALTH CARE IN THE NETHERLANDS AND THE POSITION OF THE NETHERLANDS INSTITUTE OF PRIMARY HEALTH CARE

1.1. Primary health care in the Netherlands

In the Netherlands primary health care and the position of the general practitioner were for a long time synonymous. The position of the Dutch general practitioner in the health care system was quite strong, because entrance to secondary medical care is and was channelled through the general practitioner's surgery. The provision of pshysiotherapy and Rx prescriptions is initiated by a visit to the general practitioner (or to a specialist in these types of health care).
The domain of referral nowadays has even been extended to the provision of ambulatory mental health care. The general practitioner and the social worker are the entries at the gate of this (flourishing) sector of the Dutch health care system.
A rather generous capitation fee for the publicly insured patients (on average about 65% of the population) makes the Dutch general practitioner financially quite well off in comparison with most of his European colleagues. A further improvement in the Dutch general practitioner's position has been reached through reduction of the relatively large listsize without reducing the general practitioner's income in a substantial way.
Primary health care is not confined to general practitioners. The core of primary care is formed by general practitioners and district nurses, representing the health professions' part in primary care, and social workers and family assistants, representing the social sector. Apart from these professions, physiotherapists (in private, ambulatory practice), dispensing chemists and midwives are counted as primary health care providers.

As has been the case in most industrialized countries containment of the cost of health care has been a major political objective for successive Dutch governments over the last decade. The objective of cost containment was translated in four major topics of policy concern:
1. the reduction of the number of hospital beds;
2. the containment of costs by a policy of budgetting (initially in second-line medical institutions, but later on among all provi-

ders of health care);
3. the strengthening of primary health care;
4. the (reluctant) imposition of price thresholds on the client's side.

Recently a shift has been noted in public policy away from interventions in the structure and organisation of health care and towards direct attention to factors influencing the health status of the population and to health promotion. The translation of this shift in policy measures is, however, still to be made.

One of the important topics in health care policy in the past decade has been the strengthening of primary health care. The ways to reach this goal were, first of all, protection of the central position of the general practitioner, but also the promotion of cohesion and co-operation, not only in primary, but also in the other sectors of health care. Cohesion means: the clarification of tasks and functions in health care; the reduction and exclusion of double work and the provision of adequate information to all professionals who provide care for an individual patient or client.

Cooperation is a specific form of cohesion: a unique feature of Dutch primary health care is the existence of multidisciplinary cooperation between social workers and family assistants on the one hand, and general practitioners and district nurses on the other. Sometimes supplemented by physiotherapists and midwives. The shared premises where these disciplines are found are called a health centre in the Netherlands. The term 'health centre' has a very specific significance in the Dutch health care system and it always refers to multidisciplinary cooperation between social workers and medical professionals in a shared building.

In recent policy papers the effects of this policy of strengthening primary health care on the reduction of the volume and costs of secondary care has been challenged. The conclusion seems to be justified that only an integrated approach of influencing both primary and secondary care at the same time can yield the desired effects. This, however, supposes an integration of planning and financing of health care which has not been reached uptill now.

The current trend (not only in the Netherlands, but also in other countries) towards outreaching secondary care, e.g. through home care organized by hospitals, seems to suffer from the same shortcomings in that it only attacks one part of the system without at the same time influencing counterbalancing processes.

This very rough description of the Dutch health care system and health care policy supplies the institute's main topics of research.

1.2. The Netherlands institute of primary health care

1.2.1. Its place

In order to understand the tasks and function of the institute one has to consider the position of NIVEL in relation to other research institutes, the universities and the Ministry of Welfare, Public Health and Cultural Affairs.

NIVEL is one of the four sector-institutes that carry out research on Dutch health care. The other three are: the Netherlands Institute for Preventive Health Care (which studies public health, occupational health, etc.), the National Hospital Institute and the National Centre for Mental Health Care. Two of hem (NIVEL and the national Centre for Mental Health Care) are funded by the Ministry of Health, the Institute for Preventive Health Care is part of a large organization for applied scientific research (most of it in the field of natural science and technology) and the Hospital Institute receives its funding from a small levy on each hospital day in the Netherlands. Furthermore, there are research activities (of an applied or a more fundamental character) at the universities in the departments of family medicine, medical sociology and psychology, health economics, nursing research, social medicine, etc.

The four sector-institutes are principally concerned with applied health services research which serves as a basis for decision-making in health care policy.

Although the Ministry of Health is the main source of funds for NIVEL, the institute has been structured as an independent research foundation. Scientific work can only flourish in relative independence, even in cases where the activities support and assess government policy.

The composition of the board of governors of the institute is tripartite. One third comes from the professional organizations (doctors, nurses, physiotherapists), one third from consumer organizations and health care insurers (consumer organization, the associations for the handicapped and the disabled, the public health insurance funds and private health insurance companies). The final third has an academic background (in nursing research, family medicine, management sciences). The chairman of the board is Mr. Clemens Olthoff, a management consultant. The Ministry of Health,

the Public Health Insurance Funds' Council and the National Organizations for Social Work and Family Care are represented as advisors to the board.

1.2.2. The organization of the institute

Mrs. Jozien Bensing (research psychologist) is the general director. She is assisted by two managers, one for general management and administration, Mr. Titus de Jong, and one for scientific management, Dr. Jouke van der Zee. Dr. Van der Zee is assisted by a substitute head of the scientific department, Dr. Peter Groenewegen. The backbone of the institute (which has a total of one hundred members of staff, including approximately thirty graduates) is formed by a group of ten senior research fellows each of whom is responsible for one of the institute's major topics of research. They are assisted by junior research workers and supporting staff.

1.2.3. The role of the institute and its primary concerns in research

The main tasks of the institute are:

1. the provision of information and the description of existing and new areas of research;
2. the evaluation of experiments and government policies;
3. the scientific analysis of the functioning of the health care system at a higher level of abstraction.

Provision of information

Information is being gathered on three subjects. First of all information is being gathered on current research in primary health care in the Netherlands. Yearly a report on current research is published. Apart from descriptions of research projects it also contains indications of the size of the projects and on funding. In 1985 a trend study on research in primary health care was published by the Institute. It is planned to make a trend study once every five years.

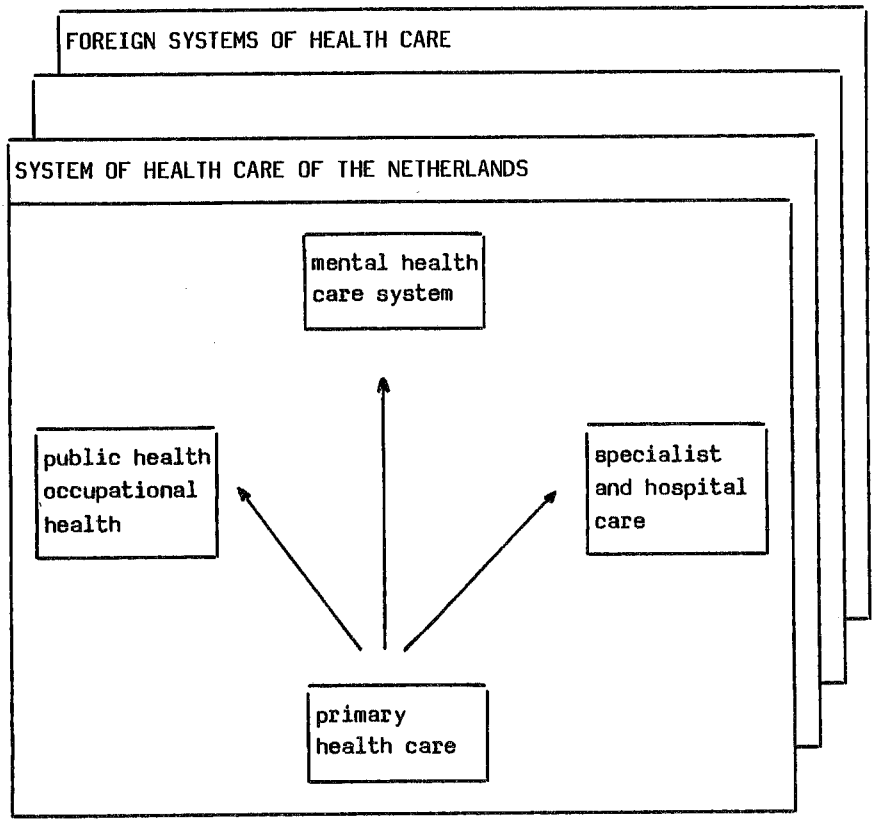
The second subject concerns information about what is going on in primary health care. A great deal is known about what is going on in specialist medical care, because specialists receive a fee for each case or each item of service and when services have to be billed, they are usually recorded fairly accurate. The capitation fee in general practice, in contrast, is an obstacle to the production of routinely collected statistics. Therefore, the Institute has a continuous information system of 'sentinel practices', part of an in-

ternational network. Yearly a report is published in Dutch and English. Because the number of items recorded in the sentinel practices'-project is restricted, a more encompassing national study of morbidity and interventions in general practice started recently. Information projects on the content of work of other primary health care providers, such as physiotherapists and district nurses, are being designed.
The third subject deals with information on manpower in primary health care. Our manpower information system contains data about general practitioners, midwives and physiotherapists and it is being extended to other professions in private practice. We have not collected data on salaried professionals in primary health care - the most important group of which is district nurses. Although one would expect manpower data on salaried professionals to be readily available, this is not the case and it may therefore be necessary to extend our information system on manpower to the salaried professionals.

Evaluation
The research activities of the institute are quite closely linked with the implementation of government policy. This can be policy of a general sort, or highly specific experimental policy measures. The task of the institute is the provision of information on the success, failure and possible adaptation of a wide range of strucural experiments designed to change the provision of health services. An example of this is the evaluation of the multidisciplinary health centres mentioned above.

Scientific explanation
The third task of the Institute is to provide a scientific explanation of what is happening in the health services. Description and evaluation are not enough. It is, by way of example, not only important to have information on the distribution of general practitioners throughout the country, but it is equally important to know what the causes for an uneven distribution are and indeed, perhaps most important is the need to know the consequences of an uneven distribution, for instance in respect of the number of people referred to secondary medical care.
Although the institute operates in an applied field of health services research, the value of the results and research reports increases with their level of scientific quality.

Figure 1: Overview of research topics of NIVEL



1.2.4. Topics of research

The Institute's domain of research can be divided into four areas. The first is the comparison of health care systems internationally. This is the most comprehensive and most complex type of research. It expresses an increasing interest in what is going on in other countries. As virtually every health care system in the world is confronting the same problem of containing costs and a rise in the utilization of health services, health care administrators are looking for solutions to the same problems. Consequently, the comparison of health care systems is more important now than it was a decade ago.

Two further areas of research can be derived directly from structural problems discussed in the introduction to this program. The

second area of research concern is lablled 'Cohesion' in health care. It contains studies into the position of primary care in relation to the other sectors of the health care system, such as secondary medical care, (ambulatory) mental health care and public health care (see figure 1).
The research topics in the field of 'Cohesion' are similar to the topics in the field covered by the four national institutes of health service research. Many projects in this field of 'Cohesion' require cooperation between one or more of the national research institutes.
The cooperation between providers of care within the primary health care system is the third topic of research. It is important here to recall the prominence of multidisciplinary health centres in the Dutch health care system.
In the fourth area of research the emphasis is on topics within primary health care. These topics are stratified according to two dimension; on the one side the different providers of primary (health) care and on the other side the different areas of concern (demand, supply, process, outcome). Both dimensions are combined to form a matrix (figure 2). Not all possible combinations are being studied at the moment (only those marked with an 'X' are being studied).
The first row of the matrix contains the key word demand: Research in this row contains studies of health care needs in the population as well as studies of utilization of health facilities. The row with the key word 'Supply' is subdivided. The first area of concern within this row is the (quantitative) supply of care, i.e. number of providers, their regional distribution, background characteristics like age, sex, type of practice, qualifcations and the number of future providers following vocational training. Research in this field is on a database of the personal characteristics of all providers. The second area of concern is the content of the services rendered by the professional. In this area there is a division of responsibility between the university departments of general medicine which study the content of the medical services and our Institute which concentrates on health service aspects.
The third row is the process of interaction between the consumer and the provider of health care. As far as the general practitioner patient interaction is concerned, the data for research in this field is a collection of 3000 videotaped consultations.
The fourth row is labelled 'outcomes'. The fact that only two cells of the matrix are filled, reflects that research only recently

Figure 2: Research topics within primary health care

	cooperation within primary health care (section 2.3)							
	'medical sector'						'social sector'	
	g.p.	district nurse	physio-therapist	mid-wife	dispensing chemist	others	social work	family assistence
Demand	X	X	X	X		X		X
Supply - content of work	X	X	X					
- volume/ manpower	X		X	X	X	X		
Process	X		X				X	
Outcomes	X		X					

shifted towards this subject. This is a consequence of the shift in government policy away from organisation and structure of health care towards influencing the state of health of the population.
In the second part of this program we describe the research topics, starting with international comparative research (section 2.1), the relation between primary health care and other sectors (section 2.2), cooperation within primary health care (section 2.3) and topics of research within primary health care (section 2.4).

2. RESEARCH TOPICS WITHIN THE NETHERLANDS INSTITUTE OF PRIMARY HEALTH CARE

2.1. The international comparison of health care systems

(research fellows Jouke van der Zee, Ph.D., Peter Groenewegen, Ph.D.)

Under the pressure of rising costs of health care, there is an urge to change the system. If not as a source of inspiration, the study of other health care systems may serve at least as a horrible example.

The international comparison of health care systems can throw light upon the problem areas and black spots in Dutch health care. In choosing health care systems to compare the Dutch with, one has to keep in mind the peculiarities of the Dutch system:

- the separate regulation of planning and financing of health care;
- the organisation of curative and preventive (or public) health care in different sectors of the system;
- the capitation fee for the general practitioner for his publicly insured patients and the fee for service for specialists;
- access to secondary medical care exclusively via the general practitioner;
- the delivery of health services in kind (with a small prescription fee excluded) for publicly insured patients;
- the part public and part private insurance of health care;
- the general practitioner as the principal provider of primary health care.

Health care systems with free access to specialist medical care (such as Belgium) or a different system of remuneration of general practitioners and specialists (as is the case in Denmark) or systems where the general practitioner is not the central provider of primary health care (such as Sweden), are relevant subjects for comparison.

To collect data on health care systems in industrialized countries in a more systematic way an inventory is being carried out throughout all countries of western, northern and southern Europe. Participants in this project are: the Birmingham Research Unit of the Royal College of General Practitioners, the Danish Central Research Unit of General Practice and the Netherlands Instiute of Primary Health Care with the cooperation of the European General Practice

Research Workshop and additionally funded by the EEC Health Services Research Group. The inventory has a two-fold aim: First it will describe the division between primary and secondary care in a variety of health care systems. Secondly it will yield research proposals to compare health care systems in terms of specific characteristics, e.g. the use of diagnostic facilities, the care of chronically ill and disabled patients, referrals from primary to secondary medical care, etc.

Apart from this inventory the following projects are being carried out at the moment:

- changing the remuneration system of general practitioners; in this project an analysis is being made of the effects of a change in the way general practitioners are remunerated in Copenhagen. The change will be from capitation to a mixed system of basic capitation and fees for specific services; a kind of change that is also discussed in the Netherlands.
- the income position of general practitioners in European countries; the income position of g.p.'s in the UK, Belgium, FRG, Denmark, Sweden, France and Italy has already been described. Research is going on for a number of other countries. The whole collection will be published in English in 1987.
- primary health care after the Bordeaux Conference; developments in primary health care after the international conference in Bordeaux in 1983 are being studied on request of WHO. Data concerning the Netherlands have been collected by NIVEL who also hosted the international symposium on the subject.
- regional analysis of systems of health care; an analysis of regional variations in hospital admissions in the Netherlands and Belgium showed that regional analysis is fruitfull approach to the comparison of health care systems. This approach is now being extended to data of the northern regions of France.

The field of international comparative research will get a new impetus in the course of 1987 when NIVEL will become a collaborating centre to WHO for primary health care.

2.2. The relations between primary health care and the other health care sectors

From figure 1 it is clear that this field of research can be divided

into three parts: the relations with secondary medical care (specialist and hospital care), the relations with mental health care and the relations with public health and occupational health.
Apart from a study in well-baby care, no research projects are currently being done in the latter field.
We will, therefore, only discuss the relations of primary health care with secondary medical care and with mental health care.

2.2.1. The relation between primary and secondary medical care

(research fellow: Mr. Diederik Kersten)

In the Dutch health care system the access to secondary medical care is regulated via the general practitioner. A good deal of research has been carried out into the relationship between primary and secondary medical care. The focus of this type of research has been on referrals by general practitioners to medical specialists, on the influence of general practitioners on hospital admissions and on the length of stay in hospitals. Recently there is a growing interest in post-hospitalization home care and the technological changes required to give high quality (nursing and medical) care in the home.

Over the past decade the emphasis in research has been on the analysis of the considerable variation in referral rates among general practitioners and/or practices. It has been shown that the organisation of practice affects the amount of referrals to secondary care. Integrated health centres, in particular, have lower referral rates.
In alle studies a relationship is found between the referral rate of general practitioners and the distance of the practice to the nearest general hospital. Although this relation is found in each study, it is not completely clear as to how distance influences the referral rate. The influence of the opening of a hospital in an area where until then the nearest hospital was at least twenty miles away has provided a rare opoortunity for studying the mechanism of this well established fact. In the project 'Hospital on new land', the effect of the opening of a hospital in the new Zuyderzeepolders has been studied carefully. The behaviour of general practitioners, referral rates and referral characteristics have been measured for the period before the opening of the hospital and for a period of two years subsequent to its opening. Also the attitude of the population towards primary and secondary medical care has been measured at several points in time. The expected increase in the number of referrals failed to appear. However, the number of hos-

pital admissions increased considerably. Two questions remain: will the number of referrals incrase in the long run and how can the increase in hospital admissions be explained. These questions will be adressed in a follow-up study.
A related topic of research has to do with the influence of general practitioners on hospital admission rates. Although in the Dutch health care system general practitioners only directly influence hospital admission rates in acute and emergency departments, there is quite a variation in the proportion of patients admitted, given the proportion of patients referred to specialists. This variation per practice can not be traced back to characteristics of the practice population. Characteristics of practices with low relative admission rates and high admission rates are compared in this project.
Substition between home care and hospital care is a major topic of research in primary health care. Policy measures that may contribute to lowering hospital costs by reducing the average length of stay per hospital admission can be called extremely effective. The relation between general practice, the district nurse, and the family assistant as representatives of primary health care and medical specialists and hospital nurses as their counterparts in secondary medical care is the principal subject of research. The following are the ongoing projects:

- regional differences in length of stay in general hospitals. This project is an extension of the existing macro-statistical models that have been developed at the institute for referral rates and hospital admissions. In this extension the dependant variable is the average length of stay per admission. Supply and demand factors will form part of the model.
- evaluation of the organization of post-hospitalization home care. Three different models of organisation will be compared and evaluated.
- technological innovation in primary health care. There is a growing tendency of out-reaching hospitals. Increasing constraints on hospitalization force hospitals to 'export' their technology to the ambulatory sector and home care. The question is addressed whether technological innovation in primary health care itself is an alternative to outreaching activities.

2.2.2. Primary health care and mental health care

(research fellow Mr. Loe Peters)

Research in this sector is characteristic of the Dutch health care

situation. In the Netherlands a strong tradition of ambulatory mental health care exists alongside classical institutional psychiatric care. A couple of years ago, a series of independent ambulatory care institutions devoted to specific categories of patients and/or problems were reorganized into Regional Institutes for Ambulatory Mental Health Care. There are 59 of these regional institutes and they take care of the ambulatory side of a considerable range of psychological and psychiatric problems. These regional institutions are not directly accessable to the population. Referral is required either from a general practitioner or from a social worker. Patients discharged from psychiatric hospitals do have direct access for their after-care. The indications for ambulatory mental health care are not entirely clear, however. Questions such as 'What are the problems in this area that can be solved by the primary health care sector (the gp and the social worker)', 'What sort of problems need referral to ambulatory care and what sort of problems need residential and institutional care' must be answered by politicians and health care professionals. Research that tries to establish the problem solving capacity of primary and mental health care is important in ensuring that the right decisions are taken. The Dutch Ministry of Welfare, Public Health and Cultural Affairs has produced a policy paper on the problems mentioned above. Questions deriving from this policy paper will govern research in the area for the coming years.

First we will give a review of research projects in the relation between primary health care and mental health care; subsequently we will discuss projects relating to the problem solving capacity of primary health care.

In the field of the relation between primary health care and mental health care the following topics are being studied:

- An inventory of cooperation between primary and mental health care. This is a combined project on the part of NIVEL and the National Centre for Mental Health Care. Questionnaires have been sent to general practitioners and social workers and to therapists in the regional institutes for ambulatory mental health care and independently established psychiatrists, out-patient psychiatric clinics of general hospitals and out-patient clinics of psychiatric hospitals. The comparison of the answers to the questionnaire will most probably reveal the frictions between primary and ambulatory mental health care.
- Based on patient files and case studies an analysis is proposed of client characteristics and problems and of approaches in general

social work (primary care) and in Regional Institutes of Ambulatory Mental Health Care. The aim of the project is to investigate the differences and simularities in the handling of problems in primary care and in (more specialised) mental health care.

- Referrals by general practitioners of patients with psycho-social problems. A group of 45 general practices (the socalled sentinel practices) recorded all referrals of patients with psycho-social problems during two years. The central question is how general practitioners differentiate between problems that can be handled by social workers and those that have to be dealt with by specialized mental health services. Different systems to classify psycho-social problems will be used and evaluated in this project.
- The place of psychologists in primary care.
  There is a growing involvement of private psychologists in primary care. This involvement will be evaluated through the collection of descriptive information about their numbers, approaches and relations with other primary health care providers and through the study of experiments. Experiments will be designed with different organisational models.

The second group of projects relates to the problem solving capacity of primary health care itself in the field of psycho-social problems.

- Presentation and course of psycho-social problems in general practice. This project consists of three related parts. The first one is devoted to the determinants of calling in general practitioners' attendance in case of psycho-social problems. It is hypothesized that the process of protoprofessionalization is an important factor in explaining differences in calling in g.p.'s attendance. The second part is an epidemiological study of psycho-social problems in general practice. Earlier studies revealed a large variation between general practitioners in the amount of psycho-social problems, presented to them and/or detected by them. The third part concerns a longitudinal study of the course of psycho-social problems during one year.
- Changing models of conversation: variations in doctor-patient communication.
  One of the findings of previous research is that doctors tend to switch from quick, to the point, directive types of questions which attempt to generate a diagnosis by means of direct annamnestic questions within consultations to a 'model' where questions are less direct and where there is much more room for the patient to influence the outcome of the conversation. It is not yet clear

which factors trigger these different styles of questioning. Further research is being carried out to detect the conditions that favour the discussion of psycho-social aspects of complaints in doctor-patient communication.

2.3. Multidisciplinary cooperation in primary health care

(research fellow Dirk Wijkel, Ph.D.)

Close cooperation between the general practitioner, the district nurse, the family assistant and the social worker is one of the pillars of health policy in the Netherlands. A special form of this type of cooperation is to be found in multidisciplinary health centres where representatives of all these disciplines cooperate and work together in the same premises. Their number has been growing steadily during the past decade. Notwithstanding financial support from the gouvernment, however, this growth has ceased recently. These developments are being monitored permanently through a systematic registration. The registration is not restricted to health centres, but also collects data on looser forms of multidisciplinary cooperation in primary health care, the home teams. Of these there are approximately 500, compared to 150 health centres.

Evaluation studies of the effects of cooperation have clearly shown that referral rates from general practitioners to medical specialists are lower in health centres. Further research in this field is directed towards other criteria of evaluation, such as quality of care, and towards testing of hypotheses on the mechanisms resulting in better performance of health centres.

A new field of research in cooperation concerns the cooperation of general practitioners and alternative medicine. The last topic is the organizational, political and administrative cohesion of the primary health care system.

We will start the description of projects with those concerning multidisciplinary cooperation.

- The registration of and research into multidisciplinary teams. (research fellow Mr. Wienke Boerma).

  Since 1977 the institute has systematically recorded all multidisciplinary health centres in terms of content, distribution and changes. From 1985 on multidisciplinary teams which do not share common premises have also been aproached and registered systematically in addition to health centres. The social workers are a source of information in this field as they usually record where they have systematic and formal cooperation with other disciplines

in primary health care. The resulting database is a source of statistical synopses and provides data for further research.

- The quality of cooperation. This project aims at the development of a measurement instrument of the quality of cooperation. Measures of the quality of cooperation will then be related to the outcomes of health centres, home teams and other groups of general practitioners.
- Referrals to medical specialists and referrals within the cooperating team. Earlier research has shown that general practitioners in cooperative practice have lower referral rates to medical specialists than single handed general practitioners. It is sometimes assumed that this lower referral rate to medical specialists is compensated by a higher referral rate within the primary health care team. This assumption will be tested with data about referrals to physiotherapists.

In the field of cooperation between mainstream medicine and alternative approaches three related projects started in 1987.

- The feasability of experiments in cooperation. The aim of this project is to describe how cooperation between general practitioners and alternative medicine ideally should look like and what cooperation can be realised.
- General practitioner and alternative medicine. In this project emphasis is on the attitudes of general practitioners towards patientws consulting with alternative healers, their own activities in advising or referring patients to alternative healers and their cooperation with them.
- Rheumatologist and alternative medicine. Consultations with alternative healers are most frequent among chronically ill people. More than half of the people with rheuma, in a recent study, ever consulted with an alternative healer. In this field it is therefore very important to study the attitudes and activities of rheumatologists towards alternative medicine.

The last groups of projects concerns the organizational, political and administrative cohesion of the primary health care system.

- Evaluation of the organizational structure of general practice at a local and regional level. Apart from the organization of practice, the smallest organizational level of the profession is the locum group. This is a group of approximately ten general practitioners who organize among each other the locum services during the nights and weekends. These local groups differ in the way they have organized these services and in the scope of the group's objectives (only locum services or also e.g. peer review).

At a higher level of orgnization a recent agreement between the Dutch association of general practitioners and the government resulted in a support structure for general practice. To evaluate the impact of this agreement, first of all an investigation will be made of the objectives of this support structure.

- The preparation and carrying out of local health plans. A number of municipalities have written local health plans. In doing so they anticipated the introduction of the Act on Health Care Facilities. Uptill now this Act has only been introduced partially, regulating the establishment of general practitioners and their list size. An inventory has been made to assess the sort of preparation that municipalities have already made.
- Adaptation of catchment areas: development of a methodology. It is government policy to realise overlapping catchment areas of general practice, district nursing, social work and family assistance. To evaluate this policy, baseline data have to be collected. Different methods have been tried out, using general practitioners and district nurses as informants, using sick funds data on the actual dispersion of patients around surgeries and offices and using a telephone survey of patients.
- Adaptation of catchment areas: case studies. A number of case studies have been done or are on its way. The overlap of catchment areas of multidisciplinary health centres has been studies and a project is started to collect data for home teams. Another case study has been done of the city of Rotterdam.
- The evaluation of the political and administrative organization of health care in Almere. In Almere (the newest Zuyderzeepolder) the health care system is organized in an experimental way, with an accent on a strong and integrated primary health care system.
  A project has been set up to analyse and determine the political and administrative effectiveness of local government. This project is being carried out in cooperation with the National Hospital Institute with NIVEL as the principal partner.

2.4. Research topics within primary health care

In the introduction we pointed out that the research projects, carried out in this area, can be looked upon as the cells in a matrix. The collumns of the matrix are formed by the various professions in primary health care and the rows represent the main areas of interest: demand, supply, process and outcome. However, projects are

usually not restricted to one cell of the matrix and some fields of interest are better developped than others. The actual description of projects therefore follows the historically grown patterns of research at our Institute.
We will start with projects in the field of supply of primary health care professionals. Next we will discuss the field of morbidity and interventions in general practice. This in fact concerns demand, process as well as outcomes.
The third section is devoted to the communication between health care providers and patients.Thus, the emphasis here is on process. The next two sections contain projects on the whole range of fields of interest for two professions: physiotherapists and district nurses.
The last section is on demand. That it is the last section is not a judgement of its importance. It is due to the fact that at the moment there are only few projects exlusively dealing with demand or needs. The research program for this field of interest will be further developped in 1987.

2.4.1. The supply of manpower and its function in primary health care

(research fellow Lammert Hingstman, Ph.D.)

To meet the lack of information on the supply of primary health care providers that used to exist and in part still exists, an information system on manpower has been devised and is still being extended. The information system started in 1974 as a data base containing personal records of all Dutch general practitioners (approximately 6.200 at the moment). The system has been extended with data bases on midwives (± 700) and physiotherapists (± 9000). In the years to come data bases on dentists, dispensing chemists and other primary health care professionals will follow.
The information system contains data for all professionals actually practising their profession in primary health care.
Apart from these, the system also contains data on all professionals who complete their vocational training. Yearly a questionnaire is send out to everybody who has completed vocational training and is formally qualified to practise in primary health care. The aim is to monitor the activities of those who are not yet settled down in practice.

The objective of the information system on manpower is threefold.
The first aim is that it yields reliable and accurate information

about the size, composition by age and gender and regional dispersion of professions in primary health care. This information is summarized in annual statistical synopses.
The second aim is to use trends and patterns in this data as the subject of research. As an example, research has been done into the determinants of regional disparities in the density of primary health care professionals.
The third aim is to have a data source for further research. Complete and reliable population data are indispensable for drawing samples used in all kinds of research projects.
To avoid sterile statistical synopses, the data bases are closely related to a research program which attempts to explain regional variation in the density of the different professionals, to predict the consequences of this variation for the use of the health services and to analyse indicators of the demand for health services in relation to supply.
The following project are being carried out:

- The distribution of primary health care facilities in urban areas. Past research into the geographical distribution of primary care concentrated on regional disparaties in the whole country. Linked to the WHO-program of Healthy Cities, attention is now shifted towards on analysis of demand and supply of primary health care in cities.
- The market for obstetrical care.
  In the Netherlands three professional groups provide obstetrical care: independant midwives, general practitioners and gynecologists-obstetricians. In this project the market share of each of these professions is being analysed.
- Supply-demand models for several professions in primary health care.
  In these projects the regional distribution of professionals such as dentists, general practitioners, and pharmacists is related to the use of specific health services. In the Health Interview Surveys conducted by the Central Bureau of Statistics, large samples of the population are asked about their use of health services. This information can be aggregated regionally and related to the relative number of providers.
- The location of public facilities in primary health care. The increasing regulation of primary health care: laws which regulate the establishment of professionals for example, will change the character of the research that tries to explain regional differences in the density of providers. These are no longer individual

decisions by professionals, but often decisions taken by local communities on priorities in the expenditure of local funds with alternatives such as a library, a health centre or a brassband competing for the same funds.

- Female general practitioners, a follow-up study.
  The gp generally practises his profession alone, although the number of group practices and health centres has increased considerably over the last decade. However, 60% of Dutch general practitioners run single handed practices. The opportunities of practising the profession on a part-time base or as an employee of a foundation running a health centre are limited. Although the number of women in post-graduate professional training has increased from 10% to approximately 30%, the number of female general practitioners is much lower, although it is increasing. No more than 5% of Dutch gp's are women. In a follow-up study a cohort of graduates from post-graduate training will be screened over a period of a couple of years to see how their ideas, plans and ambitions change when confronted with the limited opportunities of establishing themselves in their profession. The ambitions and opportunities of male and female future general practitioners are compared and predictions are made about who will and who will not succeed in establishing himself or herself as a general practitioner.

2.4.2. Morbidity and interventions in general practice

(research fellows: Marleen Foets, Ph.D. and Koos van der Velden, MD)

In the Dutch health care system, routinely collected information from general practice only emerges where the work of the general practitioner touches a sector of the health care system, where a fee-for-service remuneration exists. The capitation fee for the general practitioner effectively prevents the production of routinely administrated information, i.e. specific information depends on the evidence for the service in the form of a fee. The best known parameter of the general practitioner's work is the referral-rate to medical specialists, or the referral-rate to physiotherapists. Consequently, data that is at the disposal of government policy makers and researchers in the field of general practice, is either completely out of date (the last national morbidity survey dates from the 1960's), or collected on a case basis (new morbidity statistics are usually based on no more than ten practices), or representative but fragmentary (in the Dutch system of Sentinel Practices a limited

number of items is being recorded by a 1% representative panel of Dutch general practitioners).

Where it is so self evident that new information on a national scale is needed, why is there a relunctancy to collect it? There are three main obstacles to a new National Morbidity and Intervention Survey. The first is a certain disaffection in respect of huge databases which seem to be able to answer every question but the one that one happens to want to ask at the time. The second problem is that each morbidity survey always shows an enormous and unexplainable inter-doctor and inter-practice variation in the items recorded. This is surely a very expensive method of measuring differences in doctors' personalities and the organization of practices. Are the results of such a survey sufficiently valid? The third question, closely connected to this, is the question of the reliability of the data. Self-administration and registration are notoriously unreliable.

These three obstacles can be countered by employing the following guidelines:

1. To avoid the collection of data irrelevant to the questions to be answered, a preliminary survey should first be conducted on the basis of the questions of government policy and research that need to be answered. An inventory of relevant questions made beforehand has the advantage that the design of the survey can then be adapted to it. In a normal representative sample, for example, few female doctors are included. However, when one knows beforehand that the difference in the role of male and female doctors is a relevant issue, one can add an additional quotum of female doctors to the sample.
2. The second problem: the validity of the information collected, should be tackled from a different angle: i.e. the health services research perspective. In this perspective one accepts differences between doctors and practices and tries to explain the differences found, on the basis of theories derived from health services research. Inter-doctor and inter-practice variation is a valid and a relevant subject of study for this type of research. The relevance of the project for government policy purposes increases considerably when a health services research point of view is part of the design of the project from the very beginning.
3. Self registration should be avoided as much as possible. The possibility of 'central coding' should be mentioned here as a solution to the problem of the reliability of self recording.

The following relevant questions are derived from health care policy:

- What factors increase the problem solving capacity of primary health care in general and of the general practitioner in particular?

The main items of interest are:

- what kind of problems can be solved in primary care and should not be referred to specialistic (secondary) medical care?
- what kind of problems can be solved in primary care (medical and social) and does not require to be referred to (ambulatory) mental health care?
- which factors induce a shift from the presentation of problems in primary health care to self care and the care of the surrounding social network of patients?

A series of research proposals has been constructed on these rather general policy questions. Before we describe these topics in some detail, we will devote some space to practical aspects of the design of the national Study of Morbidity and Interventions.

In 1986 a feasability study has been done. In this the blueprint of data collection procedures, registration forms, interview schedules and so on were tested. Moreover, the willingness of general practitioners to participate in the study was examined. The results of the feasability study were used to calculate the costs of the study.

Data collection started in April 1987. In 150 general practices (totalling nearly 200 general practitioners) all morbidity and interventions are being recorded. The period of data recording is three months and the participating practices have been divided in four groups and spread over the year.

Of all patients demographic and social background data are collected and health interview surveys will be held with a random sample of 100 patients for each practice.

The analysis of the data, collected in the National Study, starts in 1988. The analysis is centred around the following research topics, deriving from the general policy questions mentioned above.

- National study of morbidity in general practice.
  The objective of this subproject is a description of morbidity as presented to the general practitioner. Because social and demographic background data of all patients on the list of the general practitioners will be available, social and epidemiological

analysis will be possible.

- General practitioner and chronic disease.
  Of a number of chronical conditions, such as hypertension and cardio-vascular disease, diagnostic criteria will be settled and used by the general practitioners. The aims of this study are to define the share of chronic disease in the morbidity pattern in general practice, to investigate the interventions of general practitioners in these chronical conditions and to improve the treatment of chronical disease.
- General practitioner and prevention.
  Prevention is generally looked upon as an important means in improving the state of health of the population and general practice has a role to play in this. As part of the National Study an investigation will be made of preventive activities of general practitioners, such as vaccination and screening for cancer and chronic diseases.
- The use of diagnostic facilities by general practitioners.
  Diagnostic procedures and tests done in the general practitioner's office as well as in outside laboratories and hospitals will be recorded.
- Prescriptions in general practice.
  In a national morbidity and intervention survey a thorough study of the prescription patterns in general practice is a necessity. Prescription habits for the same type of complaints and diagnoses can be compared and descriptive information about quantities and qualities of prescribed medicines form a good basis for possible cost containment measures.
- Obstetrical care by general practitioners.
  Obstetrical care in the netherlands is a unique phenomenon in the industrialized world: a high percentage of deliveries take place at the patient's home (35% in 1984) and a very low perinatal mortality (9.8 per 1000 in 1984). This 'obstetrical home care' is provided by midwives and to a lesser extent by general practitioners. Qualitative and quantitative aspects of the general practitioners share in obstetrical care will be studied.
- Referrals to physiotherapy.
  All that is known about referrals to physiotherapists is that there is an enormous variation between doctors who make the referrals. The indications for phsyiotherapy very considerably between general practitioners and so does the number of patients referred. The main goal of this study is the explanation of this variation by relating the referral rates to physiotherapist density, the

size and type of practice, the doctor's attitude to physiotherapy and the characteristics of the practice population.

- After-care of hospital patients.
The role of general practitioners in the after-care of hospital patients has only been described in case studies which show a potential influence of the general practitioner on the average length of stay of hospital patients. The doctor's activities in this field and the characteristics of the hospital are related to the activities of the district nurse and the hospital nursing department. It is important in this study to establish the feasibility of a more detailed and thorough organization of after-care.
- The general practitioner, social worker and (ambulatory) mental health care.
The number of referrals from general practice to ambulatory mental health care is so low that it is not useful to study the variations in this referral rate. Studies in this field would do better to concentrate on the psycho-social problems treated in general practice and on the natural course of psycho-social complaints in families. For this purpose videotaped observations of doctor-patients interaction are a necessity.
- Referral rates.
Most of the referral research in the Netherlands is based on the rough National Insurance Fund referral rate, that is the number of referred patients as a proportion of the general practitioner's list. It is more interesting to relate referral figures to the number of contacts and not to the number of patients. Moreover the referral cards should be split up into different parts, as it is necessary to distinguish referrals to opthalmologists and to establish who took the initiative in the referral and the origin of the referral. About 20 to 25% of the referral cards come from specialists who wish to continue treatment after the maximum formal period of one year. It is clear that the number of referrals which in fact stem from specialists needs an explanation which differs from the active decisions of the general practitioner and from the direct requests from patients.
- A differentiated capitation fee.
One of the ways of improving the effectiveness of a general practitioner's work is to remunerate him according to the time he spends on different types of patients. In the Dutch health care system the doctor receives the same capitation fee for each patient irrespective of age, sex and health status. If clearly recognizable groups (for example age/sex groups) show marked dif-

ferences in workload for each general practitioner, the composition of the practice according to those characteristics might form a basis for a differentiated capitation fee.

- Self care and care by the social network compared with professional care.

  One of the main disadvantages of morbidity surveys in general practice is that there is very little general and systematic information on patients. Age and sex are two variables that are coded quite reliably, but other information should be checked before it is made part of the study. In the English National Morbidity Surveys the morbidity files are linked with the census files. As the last Dutch census took place in 1971 and a linkage between census files and morbidity files is not very well conceivable in the Netherlands, extra information should be collected on a voluntary basis. Each patient who visits his doctor will be asked to complete a short questionnaire with questions about his education, profession, social class, marital status, etc. Persons who do not visit their doctor in the recording period will be approached using mailed questionnaires. A sample of the patients will be approached with a more elaborate questionnaire that contains questions about medical consumption, self assessed health status, and social network characteristics.

Besides this very big study of morbidity and interventions another longstanding morbidity project - the sentinel practices project - pales into insignificance. It is, however a project that collects data continuously since 1970 and recently it became part of the International Primary Care Network.

- The sentinel practices (research fellow: Aad Bartelds, MD)

  Since 1970 a 1% sample of Dutch general practitioners has been recording items of morbidity and interventions in terms of an annual programme with regular changes. Some of the items have been recorded from the beginning of the project (yearly influenza rates) and some have only occurred for one or two years on the annual list.

  The items for 1987 are the following:

  1. the incidence of influenza;
  2. cervical smears;
  3. dog-bites;
  4. sterilization (male and female);
  5. morning after pill;
  6. cerebrovasculair accident;
  7. measels;

8. attempted suicide;
9. pregnancy (in spite of anticonceptives);
10. mental retardation;
11. prescription of rohypnol.

The yearly report of the sentinel practices project is published in English. In 1987 a volume will be published, summarizing the results of the projects from the beginning in 1970 till now.

2.4.3. Doctor-patient communication

(research fellow Peter Verhaak, Ph.D.)

It is widely known that doctor-patient interaction influences the presentation of complaints in general practice and the outcome of that presentation i.e. the diagnostic label attached to the complaint by the doctor. Whatever item is measured in general practice, one always has to cope with inter-doctor and inter-practice variation.

Further research into this inter-doctor and inter-practice variation can only be carried out by means of the analysis of the communication process between the provider and the consumer of care. At the institute a large collection of videotaped consultations forms the basis of many research projects, sometimes directed specially towards the analysis of inter-doctor variation, sometimes as the basis of more specific questions on policy and research. Information collected by the videotape has usually been corroborated by the use of other methods such as questionnaires, self administration of interventions and self assessment of health status and health problems by patients. At the moment the following projects are in progress:

- The effects of patient education and counselling in general practice. Using the videotaped consultations an observation protocol has been developed to measure the amount of education and counselling general practitioners give their patients. This protocol has been used in a descriptive study. A follow-up will be designed to study the effects of patient education.
- Patient education in physiotherapy practice.
  A comparable project in the field of physiotherapy starts in 1987. In a pilot study transscripts of what is said during a treatment session and video registration of treatment sessions have been used.
- Prescription of psychopharmaca.
  Based on the videotaped consultations a selection will be made of consultations where the complaints of the patients are more or less the same, but where the outcomes differ. The outcomes in this

case are either therapeutic counselling or the prescription of psychopharmaca.

- From complaint of the patient to diagnosis of the general practitioner.
  Two groups of videotaped consultations will be selected and compared: consultations with patients who directly present a psychosocial complaint and consultations with patients who present physical complaints, but where the general practitioner suspects psycho-social problems to be at the basis of the complaints.

2.4.4. Physiotherapy

(research fellow: Peter Groenewegen, Ph.D.)

It is astonishing that so little research has been carried out for such a large group of health care professionals. Until very recently we did not even know how many physiotherapists practise their profession within the health care system, let alone what their geographical distribution is. Nevertheless, here and there some exploratory case-studies have been carried out. The time has come to collect this piecemeal information and put it together in a series of descriptive studies. A complicating factor is that physiotherapy literally speaking is not a primary care profession. It is a paramedical profession and so access to physiotherapy is always via the medical profession, either via the general practitioner or the specialist. The process of referral to physiotherapy is, consequently, an important field of study.

The following projects are in progress or expected to start soon:

- Physiotherapy in Dutch health care.
  The questions that will be answered in this study are: a. which patients with what complaints are referred to physiotherapists and what kind of treatment is applied by the physiotherapists? b. what kind of relations do exist between general practitioners and physiotherapists? and c. how can the variations in referral rate between general practitioners be explained? Data have been collected in general practice and in physiotherapy practice through self-registration concerning ± 7000 referrals and an equal number of treatment series. This data is complemented by questionnaires mailed to general practitioners and physiotherapists.
- Supply/demand models in physiotherapeutic care.
  Some Health Insurance Funds in the Netherlands have data bases at their disposal an physiotherapeutic services that can be traced back to the referring physician and the physiotherapist responsible for treatment. With this detailed information simple sup-

ply and demand models can be constructed where density of physiotherapists and patient characteristics are (among others) variables in the model. This type of model might yield hypotheses that can be tested on a lower aggregation level.

- Continuous datacollection and evaluative research in physiotherapy.
  Comparable to the sentinel practices project in general practice, a continuous datacollection project has been designed for physiotherapy. This will provide basic data for evaluative research in three broad fields. The first concerns the structure of physiotherapy practice; important changes in the financing and payment of physiotherapy may be expected to occur in the next few years. The second concerns the process of physiotherapy treatment; questions concerning the differences in treatment style between physiotherapists can be answered using this data. The third field is the outcomes of physiotherapy; for selected diagnoses data on the patients condition at the start of therapy and at the end may be measured.
- The situation of physiotherapy in Western-European countries.
  Just like any other part of the health care system, the position of physiotherapists differs from country to country. In descriptions of national health systems the position of physiotherapy is under-exposed.

2.4.5. District nursing

(research fellow Ada Kerkstra, Ph.D.)

District nursing is of increasing importance in Dutch health care. On the one hand the number of elderly people is increasing. This leads to a growing demand for nursing care at home. On the other hand government policy is dericted towards keeping the elderly as long as possible in their own living environment. Consequently home nursing has great priority in health care policy.
Our research program in this field only started recently. The accent is, therefore, on descriptive research and development of appropriate methodologies and measurement instruments.
The projects in progress are:

- The content of work in district nursing.
  This project aims at a descriptive study at a national, representative scale of the content of work of district nurses. Questionnaires and self-registration forms have been developed in a pilot study.
- Well-baby care.

The main target-groups for district nurses are the elderly and the very young. Their work for babies and toddlers is organized in teams with either general practitioners or specialized physicians. In this project different organizational models are being evaluated.

- Home nursing in Belgium and the Netherlands.
  The aging of the population is much further advanced in Belgium than in the Netherlands. A comparison of home nursing in these neighbouring countries could reveal important information to steer the future development of home nursing in the Netherlands.
- Measuring the need for home nursing.
  Not only do instruments have to be designed for measuring the functions and tasks of district nurses, but correct measures of the need of the population are also required. A set of instruments will be designed that can be used in further research.

2.4.6. The demand side in primary health care

(research fellow: vacancy)

With the shift in government policy away from influencing the structure of health care and towards influencing the state of health of the population, it becomes increasingly important to study systematically the demand for health care and the alternatives for using profesional health care. These topics have been and are being studied in a whole range of other projects of NIVEL. However, it is our intention develop it as a field of research in its own, integrating aspects of demand in other research projects and directing new projects.

The following projects are in preparation:

- Consumerpanel.
  the aim of this project is to have regular opinion polls concerning health and health care.
- Maternity care.
  A conditio sine qua non for deliveries at home is well organized and flexible maternity care. In this project the experiences and preferences of the users of maternity care will be investigated.
- Health insurance policies and the behaviour of consumers.
  Due to changes in the eligibility criteria for public health insurance, there is a growing number of people with private health insurance. Within private insurance there is a wide variation of policies.
  The conditions of public health insurance itself are changing also from service benefits without copayment, to service benefits with

copayment and maybe even to cash benefits or reimbursement for some services.

2.5. Library and documentation service

(head: Mrs. Alma de Leeuw)

NIVEL has a library with books, journals and reports on primary health care and health services research in general. The use of the library and documentation service is free for researchers from outside NIVEL. The library is now being computerized.
The documentation service consists of annotated bibliographies and monographs on topics such as primary health care policy, quality assessment in primary health care and primary health care in industrialized countries.

3 ENGLISCH LANGUAGE ARTICLES, PAPERS AND REPORTS

BARTELDS, A.I.M., Annual Report, Continuous Morbidity Registration Sentinel Stations, The Netherlands 1984. Utrecht: NIVEL, 1986

BECHT-MELAI, F., J.M. BENSING. A decade of research in primary care in the Netherlands 1972-1982. Utrecht: Netherlands Institute of General Practitioners, 1983

BENSING, J.M. Scientific Research within the Netherlands Institute of General Practitioners. Allgemein Medizin International - General Practice International; 10, 1981, p. 173-176

BENSING, J.M. The use of the RFE classification system in observation studies: some preliminary results. Conference Proceedings of the Tenth WONCA World Conference on Family Medicine, 20-24 May, 1983, p. 95-101

BENSING, J.M. Watching doctors: using video-tapes for research purposes. Conference proceedings of the tenth WONCA World Conference on Family Medicine, 20-24 May, 1983, p. 431-436

BENSING, J.M. Mental Health and Primary Care in the Netherlands. In: Mental Health and Primary Care. Visser, G.J., J.M. Bensing, B.P.R. Gersons (eds.), Utrecht: NIVEL, 1986

BENSING, J.M., E.M. SLUIJS. Evaluation of an interview training course for general practitioners. Social Science and Medicine; 20, 1985, p. 737-744

BUIJS, R., E.M. SLUIJS, P.F.M. VERHAAK. Byrne and Long: a classification for rating the interview style of doctors. Social Science and Medicine; 19, 1984, p. 683-690

COLLETTE, H.J.A. The sentinel practices system in the Netherlands. Environmental Epidemiology; 3, 1982, p. 149-156

CROMBIE, D.L., J. VAN DER ZEE. The feasibility of a national general-practice morbidity and intervention survey in the Netherlands; Report of a symposium. Netherlands Institute of General Practitioners - The Royal College of General Practitioners, Utrecht - Birmingham, 1982

CURFS, E.C., P.P. GROENEWEGEN. Physiotherapy in the Netherlands: an overview. Physiotherapy Practice; 2, 1986, p. 132-137

DOPHEIDE, J.P. Rates of referrals. Allgemeinmedizin International - General Practice International; 13, 1984, p. 54-58

FOETS, M., J. VAN DER VELDEN, J. VAN DER ZEE. Morbidity and Interventions in General Practice: a cross-national survey in the Netherlands, Study design. Utrecht: NIVEL, 1986

GROENEWEGEN, P.P. The geographical distribution of general practitioners in the Netherlands: an explanation of regional variation. Paper for the 9th International Conference on the Social Sciences and Medicine, Helsinki, July, 1985

GROENEWEGEN, P.P., J.J. KERSSENS, E.C. CURFS. Physiotherapy and the care for disabled and chronically ill people in the community. Paper presented at the WHO consultation of 'Care of disabled people in the community', Edinburg, June 1986

GROENEWEGEN, P.P., J.H.M. POSTMA. The supply and utilization of dental services. Social Science and Medicine; 19, 1984, p. 451-459

GROENEWEGEN, P.P., J. VAN DER ZEE. Hospital admissions in the Dutch and Belgian health care systems: an analysis of regional variation. Utrecht: NIVEL, 1985

GROENEWEGEN, P.P., J. VAN DER ZEE. The comparison of health care systems through regional analysis: the case of hospital admissions in Belgium and the Netherlands. Paper presented at the AAG-IBG conference on medical geography, Rutgers University, New Brunswick, July 1986

HINGSTMAN, L. Obstetric care in the Netherlands: regional differentiation in home delivery. Paper presented at the AAG-IBG conference on medical geography, Rutgers University, New Brunswick, July 1986

HINGSTMAN, L. Regional Dispersion of independent professionals in primary care in the Netherlands. First International Congres on Regional Variation in Provision, Utilization and Outcomes of Health Care. Kopenhagen; 26-29 November 1986

VERHAAK, P.F.M. Detection of psychological complaints by general practitioners. Paper presented on the conference 'the doctor, the patient, the illness'. Durham 9-11, July 1986

VERHAAK, P.F.M. Interpretation and treatment of psychosocial complaints by general practitioners. In: Visser, G.J., J.M. Bensing, B.P.R. Gersons (eds.). Mental Health and Primary Care. Dutch and Israeli experience. Utrecht: NIVEL, 1986

VERHAAK, P.F.M. Variations in the diagnosis of psychosocial disorders: a general practice observation study. Social Science and Medicine; 23, 1986, p. 595-604

VISSER, G.J. Epilogue. In: Visser, G.J., J.M. Bensing, B.P.R. Gersons (eds.). Mental Health and Primary Care. Dutch and Israeli experience. Utrecht: NIVEL, 1986

VISSER, G.J., J.M. BENSING, B.P.R. GERSONS. Mental health and Primary Care: Dutch and Israeli experience. Utrecht: NIVEL, 1986

WIJKEL, D. Lower referral rates for integrated health centres in the Netherlands. Health Policy; 6, 1986, p. 185-198

WIJKEL, D. Encouraging the development of integrated health centres: a critical analysis of lower referral rates. Social Science and Medicine; 23, 1986, p. 35-41

ZEE, J. VAN DER. Small area variation research at the Netherlands Institute of Primary Health Care (NIVEL). Paper, presented at the first International Conference on regional variation of health care, Kopenhagen; 26-29 November 1986

ZEE, J. VAN DER. Information for Primary Health Care in the Netherlands. Paper presented at the Workinggroup on Information for Primary Health Care; KUOPIO, 8-12 December 1986

ZEE, J. VAN DER, W.G.W. BOERMA. Health centres and group general practices in the Netherlands; 2nd revised edition. Utrecht: Netherlands Institute of General Practitioners, 1983

4. SOME PRACTICAL INFORMATION

Correspondence can be addressed to:
NIVEL
P.O. Box 1568
3500 BN Utrecht
the Netherlands

NIVEL can be reached by telephone by dialing the following number:
within the Netherlands: 030-319946
from outside the Netherlands: (international access code)-3130319946

Users of EARN (European Academic Research Network) can reach NIVEL by computer under node HUTRUUØ, username EXATDDD.

The address to visit NIVEL is:
Drieharingstraat 26, Utrecht.
NIVEL is situated in the centre of the city of Utrecht at a five minutes walk from the central railway station. Utrecht can be reached by train from the international airport Schiphol in about one hour (take the train direction Amsterdam and switch at Amsterdam central station to a train in the direction Utrecht).