research program 1985

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1. PRIMARY l:EALTH CARE IN THE tETHERLANDS AND THE POSITION 1F THE INETHERLANDS INSTITUTE fOR PRIMARY 1:EALTH CARE

1.1. Prillary health care in the Net;herlancls

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. Four topics can be discerned in this cost containment policy:

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

The role of the centra! government in structuring and influencing the development of the provision of health care has been stre.ngthened by a programme of legal and financial measures that is nearing completion. The existence of a legal requirement necessitating formal permission for the establishment of health care facilities (both institutions and private practices) and the development of an increased financial grip on prices and incomes in health care has put the Dutch government in a better position to achieve its objectives than was the case a decade ago .when the intention to structure the provision of health care was clearly present, but the legal tools were not. We will not go into details about the policy of bed reduction and budgetting, but focus our attention upon the strengthening of primary health care.

In the Netherlands primary health care and the position of the genera! practitioner were for a long time synonymous. The position of the Dutch genera! practitioner in the health care system was quite strong, because entrance to secondary medical care is and was channelled through the genera! practitioner's surgery. The provision of physiotherapy and Rx prescripticins is initiated by a visit to the genera! 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 7m) 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 can be expected from the reduction of the relatively large lists (± 2500 at present) without reducing the general practitioner's income in a substantial way. The latter is the aim of the Dutch Medical Association in its negotiations with the financing organs of the Dutch health care system.
The two other pillars which serve to strengthen primary health care are the promotion of cohesion and cooperation, 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.

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 for primary health care

1. Its place

On January 1, 1985 the former Netherlands Institute of General Practitioners was split up into a research institute for primary health care (the research department and most of the library and documentation facilities) and an agency for the support and development of Dutch general practice. So there is no brand-new institute that has to start from scratch. In the last few years the scientific domain of the institute has gradually extended to cover disciplines in pri-

mary care, such as physiotherapy, midwifery and district nursing. But the formal transformation from genera! practice to primary health care took place in 1985.

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 Hospita! Institute and the National Centre for Mental Health Care. Two of them (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 (part of it in the field of natura! science and technology) and the Hospital Institute gets 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 on 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 relativa independence, even in cases where the activities support and assess govern ment 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 academie background in nursing research, family medicine (two times) and the management sciencès respectively. The chairman of the board is Mr. Clemens Olthoff, a management consultant. The Ministry of Health, the Chief Mediaal Officer, the National Council for Public Health, the Public Health Insurance Funds' Council and the National Organizationsfor Social Work and Family Care are represented as advisors.on the board.

2. The organization of the institute

Mrs. Jozien Bensing (research psychologist) is the general director. She is assisted by three heads of department (general affairs Mr. Titus de Jong, project management Mr. Jan Peter Dopheide and scientific affairs Dr, Jouke van der Zèe), The backbone of the institute (which has a total of eighty 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.

3. The role of the institute and its prilllary concerns in **research**

The main functions 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,

1. Information

It might be concluded from what has been said above about the strong role of central government in containing and structuring health care in the Netherlands that the provision of simple descriptive information about the state of the art in primary health care would not entail a requirement for a special research effort from a scientific institute. However, this is not so. The desired level of information certainly has not been reached in most parts of the field. A great deal is known about secondary medical care: medica! specialists receive a fee for each item of service and when things have to be paid for, they are usually recorded fairly accurate. The capitation fee in general practice is an obstacle to the production of routinely collected statistics, In the field of manpower for example, we have no information about the regional distribution of physiotherapists and district nurses at the present moment. There is accordingly a task for a national research institute in the provision of accurate information on manpower in primary care and on the services rendered and the services demanded,

2. Evaluation

The research activities of the institute are quite closely linked with the implementation of government policy. This can be pol.icy of a genera! sort, or highly specific experimental policy measures. The major task of the institute is the provision of information on the success, failure and possible adaptation of a wide range of struc-

tural experiments designed to change the provision of health services. An example of this is the evaluation of the multidisciplinary health centres mentioned above.

3. Scientific explanation

The third task of the institute is to provide a scientific explanation of what is happening in the health services. Pure description and evaluation are not enough: it :i.s, 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 this apparently uneven distribution are and indeed, perhaps most important of all, is the need to know the consequences of this 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 service research, the value of the results and research reports increases with their level of (pure) scientific quality.

4. Topics

The institute's domein of research can be divided into three areas. The first is the comparison of health care systems internationally. Tnis--is the most comprehensive and most complex type of research and it expresses an increasing interest in what is going on next door, As virtually every health care system in the world is confronting the same problem of containing casts and a rise in the consumption of services, health care administrators are looking for solutions to the same problems, and in consequence the comparison of health care systems is more important now than it was a decade ago.

The two further areas of research can be derived directly fran the structural problem discussed in the introduction to this paper, The second area of research concern can be labelled as studies of 'Cohesion and Cooperation' in health care. It contains fields of study that indicate the position of pri.mary 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 cooperation between providers of care within the primary health care system is an important topic of research. It is important here to recall the prominence of multidisciplinary hea.lth centres in the Dutch health care system. It is perhaps just as well to point out here that 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 'Cohe-

sion' require cooperation between one or more of the national research institutes. Multidisciplinary cooperation within primary care, however, is the exclusive preserve of the primary health care institute.

There is, however, an important third area of research, In this, the focus is on the providers of primary health care and the relation between providers, consumers and the use of health services (figure 2). The emphasis on providers of care in the use of services is much stronger than the influence of the characteristics of the consumers of care. The field of study is divided into a number of cells that form a matrix. The columns of the matrix are the different providers. Not all providers are being studied at this time. It is of course traditional to begin with the general practitioner, but programmes have also been developed for midwives, physiotherapists and pharmacists. The horizontal rows of the matrix are labelled with the different areas of concern. The first is the **quantitative supply of care,** i.e. number of providers, their regional distribution, background characteristics like age, sex, type of practice, qualifications 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 topic is the **process** of interaction between the consumer and the provider of health care. This row of the matrix has been filled in for general practitioners only. A collection of 3000 videotaped consultations forms the raw database for research in this field. The fourth row is formed by **consumer** characteristics and consumer research. It is the demand side of health care that is being studied here.

Sometimes a comprehensive research package is offered as in the case of the general practitioner. On other occasions only one or two of the cells of the matrix are filled in with research results. In the next section we will go into greater detail on several of the topics that are sketched out in rough here. We shall proceed from the comprehensive to the particular commencing with comparative research on health care systems. We shall then move to the relationship between primary health care and other sectors in the health care system, then discuss the topic of multidisciplinary cooperation between primary health care and finally describe the different elements that

form the cells of the matrix of research in primary health care.

Figure 1.: general outline of Research Topics within NIVEL

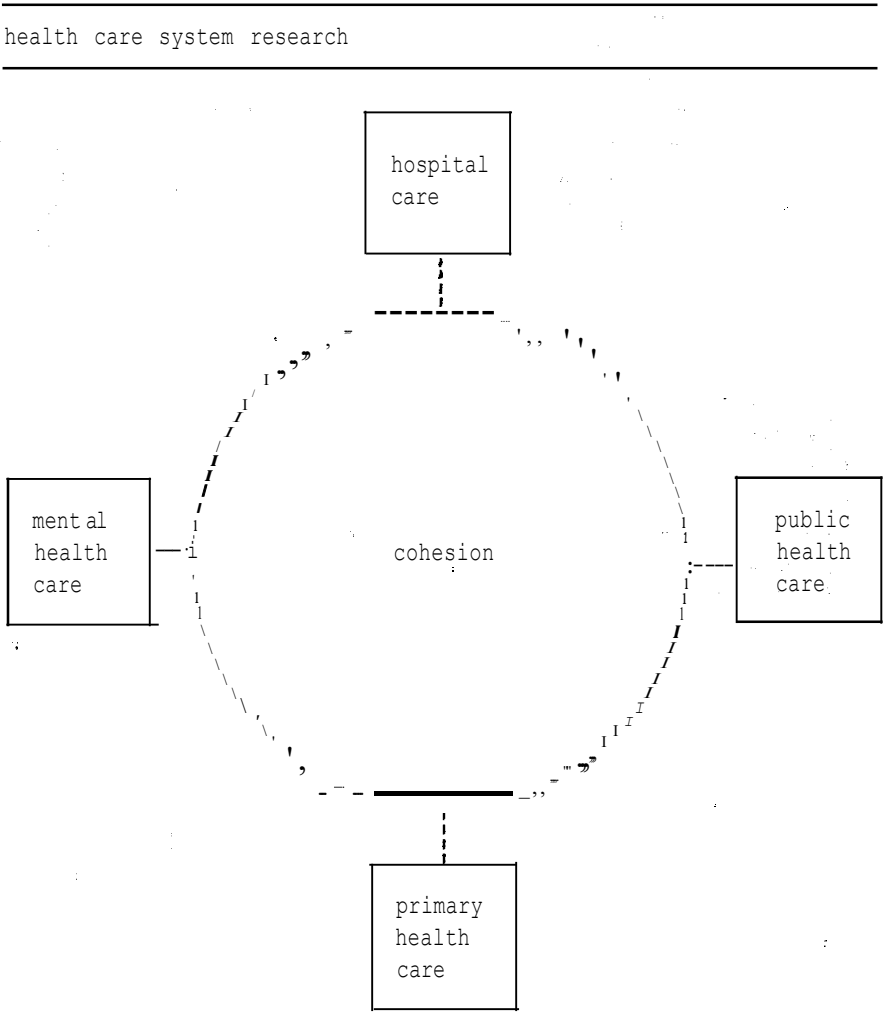

Figure 2.: research topics on primary health care

		multidisciplinary cooperation							
		providers							
		medical							
	topics	general practitioner	district nurse	physiotherapist	pharmacist	midwife	dentist	social work	family-assistance
supply	volume manpower	x		x	x	x	x		
	content of work	x	x	x		x		x	
	provider client interaction	x							
demand	the client	x	x						

2. RESEARCH TOPICS WITHIN THE NETHERLAN>S INSTITUTE FIIR PRIHARY IHEALTH CARE (NIVEL)

Program of research for 1985
The following topics are described:

2.1. Comparison of health care systems
2.2. Cohesion and cooperation: the relationship between primary health care and the other health care sectors
2.2.1. Relation between primary and secondary medical care
2.2.2. Relation between primary health care and mental health care
2.2.3. Relation between primary health care and public health care
2.2.4. Multidisciplinary cooperation in primary health care
2. 3. Research within primary health care
2. 3.1. Professions in primary health care
2,3.1.1. Manpower and the supply of health care providers (general practitioners, midwives, pharmacists, physiotherapists)
2.3.1.2. Morbidity and intervention in general practice
2.3.1.3. Doctor-patient communication
2.3.1.4. Physiotherapy
2.3.1.5. District nurses
2.3.2. The consumers of primary health care
2.4. Library and documentation
2.5. Other activities (research programming)

There is a flaw in this systematic presentation, as there is no systematic research being carried out on the relationship between primary health care and public health care. There is some research on the district nurse project which falls under the public health sector, because in the Netherlands the district nurses are responsible for baby-welfare and public health care for children. A further program will be worked out in greater detail in future.

2. 1. The international C0111parison of health care syste111s (research fellow Dr. Jouke van der Zee)

The value of the international comparison of health care systems should not be overestimated. It is, for example, sometimes the case that a particular organizational problem in health care is solved in one country at an apparently lower cost and with better results than it is in one's own, though such results are rare because of the methodological and technical problems involved in the comparison. However, the use of such striking example might cause vast politica! and social problems, even where it is widely recognized that the neighbour's •solution to the problem is better than the local one. Nevertheless, the international comparison of health care systems can throw light upon the problem areas and .black spots in the national health care organization. Systems which differ in certain critica! areas from the Dutch system are then suitable for comparison. Such critical areas, or important features of the Dutch health care system are:

- the capitation fee for the general practitioner for his publicly insured patients (70%) 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 genera! practitioner as the principal provider of primary health care.

Health care systems where there is free access to specialist medica! care and where the system of remuneration of the general practitioner and specialist is reversed (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 possible subjects for comparison.

The following projects are being carried out in this field:

1, an inventory of primary health care in Europe;
2. regional variations of hospita! admissions between Belgium and the Netherlands;
3, consumer behaviour in Belgium and the Netherlands;
4, a comparison of referral rates between the Netherlands, United Kingdom and the two Danish health care systems (in Copenhagen and outside);
5, district nurses and health visitors in Belgium and the Netherlands.

Belgium is a very interesting subject for comparison because the health care system is built on the principle of free access to all services for the consumers, a copayment that depends on the consumer's income and an absence of restriction on the entry of providers of medical care into the market (2 and 3). One might suppose that market farces govern the consumption of health care in such.a situation.

The first project is a combined effort to produce a detailed study on the division between primary and secondary health care in Europe (1). To secure basic data an inventory is being carried out throughout all the countries of western, northern and southern Europe. Those participating in this project are: the Birmingham Research Unit of the Royal College of General Practitioners, the Danish Research institute for general practica and the Dutch Institute for primary health care with the cooperation of the European General Practice Research Workshop (possibly additionally funded by the EEC Health Services Research Group). The share and the influence of the genera! practitioner in the total market of health care delivered within a specific health care system will be estimated on the basis of the results. The principal questions to be addressed are: what is the precise division of labour between the first and second line providers and which provider or institution does a client with a specific complaint approach. 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, however, the second aim is even more important; "it will yield research proposals where specific health care systems will be compared in terms of specific characteristics, for instance the use of diagnostic facilities, the care of chronically sick and disabled patients, referrals from primary to secondary medica! care, etc.

Referral rates are the subject of another combined project by the Birmingham Research Unit of General Practitioners of the Royal College of General Practitioners and the Danish Institute for primary health care and the Dutch Institute for primary health care: this is the comparison of the referral rates in the Dutch, English and the two Danish health care systems (4).

The systems of remuneration used in generál practice and for medical specialists are as follows:

United Kingdom: general practitioners have a capitation fee, consultant specialists are employed on a salary basis;

The Netherlands: general practitioners on capitation fee, specialists on a fee for service;

Denmark outside Copenhagen: general practitioners partly on capitation fee, but mostly on a fee for service, specialists on a salary basis;

Denmark - Copenhagen: general practitioners on a capitation fee, specialists on a salary basis.

The role of the general practitioner in all the systems is more or less the same: access to secondary medical care is usually only by referral from a general practitioner, so differences in referral rates could bè traced back to differences in the system of remuneration for general practitioners and medical specialists.

Home **mrsing in Belgiua** mei the **Netherlands (5).** In the Netherlands district nurses have two distinct tasks: baby-welfare and child-care on the one hand and home nursing on the other. In most other countries, as in Belgium for example, those two services are organizationally separated. There are other interesting differences between Belgium and the Netherlands. The Netherlands will not have the same proportion of the elderly in their population that Belgium now has before the year 2000, so lllllch more care has to be provided in Belgium at the present time. Another difference is that the services of a home-nurse in Belgium are provided on referral from a general practitioner, while in the Netherlands there is free access to the services. Comparison here might yield interesting results. The same goes for the comparison of consumer behaviour on both sides of the Belgian and Dutch border, Results of patient surveys will be compared in terms of differences in attitude and behaviour towards the consumption of primary and secondary medica! care.

2.2. Cohesion and cooperation: the relations between pri11ary health care and the other health care sectors.

2.2.1. The relation between pri ary end secondary aedical care (research fellows: Hr. Diederik Kersten)

In the Dutch health care system, where the access to secondary medica! 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 and on the influence. of general practitioners on hospital admissions and on the length of stay in the hospitals. The following are important sources of research topics:

1, input in secondary medical care;
2, output from secondary medical care;
3. the process and mechanism involved in the relationship between primary and secondary care.

Input in **secondary care**

Over the past decade the emphasis in research into the input in secondary medical care has been on the analysis of the considerable variance in referral rates among the general practitioners and practices. Naw attention i's being focused on proposed policy measures to change referral rates in the Dutch health care system. Plans are being made to differentiate between referral cards in terms of cards that only ask for specialist aclvice and cards that request advice and treatment from consulting specialists. A good pretest measure is required in order to measure the differences between the plain referral rates and rates of consulting and treatment cards. 45 Dutch Sentinel stations (GPs) were asked to tally referral cards in 1984. As soon as the new system has been estab.lished (probably in 1986) the same group will be asked to tally the number of consultation and treatment cards sa that the differences can be studied carefully. The title of the project is: Referral cards, consultation and treatment cards in Dutch Sentinel station practices,

The second project has to ob with tracing the direct influence of genera! practitioners on hospitàl admission rates. Although in the Dutch health care system general practitioners only indirectly influence hospita! admission rates in acute and emergency admissions 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 the characteristics of

the practice population. Characteristics of practices with low relative admission rates and high admission rates are compared in this project.

The third project concerns the influence of a fee-for-service tariff in general practice. Dutch general practitioners receive a capitation fee for their publicly insured patients. It is generally acknowledged that this system of capitation payments does not encourage general practitioners to engage in extra diagnostic and therapeutic activities. One of the Dutch health insurance funds wants to experiment by remunerating certain more complicated diagnostic activities and minor surgery. The influence of this remuneration on referral rates to secondary medical care will be studied by our institute.

The last referral project will only be referred to briefly in this chapter. It is called: Multidisciplinary cooperation and referral rates. The aim of this study is to explain the lower referral rates from multidisciplinary health centres when compared with referral rates of general practitioners operating alone. The project will be described in the section on multidisciplinary cooperation.

Output from secondary medical care

Substitution between home care and hospital care is a major topic for a research institute in primary health care. Each policy measure that can contribute to lowering hospital casts 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 in the institute. The following are the ongoing projects for 1985:

1. 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.
2. Substitution of nursing care. In the above mentioned statistical model relations can be established on a macro-economie and sociological level. It is very important to test these relations at a lower level. The influence of cooperation between general practice, the district nurse, family assistants and hospital care on decisions as to admission into and discharge from hospitals will

be studied in this project which we will go further in more detail in the chapter on district nursing.

Processes and mechanisms

Most of the relations that are being studied in this field are statistical relations. In the Dutch health care system there is a very consistent relationship between the referral rate from general practice and the distance of the practice from the nearest general hospital. Although this relation is found in each study, it is not completely clear as to how 'distance' influences the referral rates. The influence of the opening of a hospital in an area where until now the nearest hospital was at least twenty miles away has provided a rare opportunity 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 is being studied carefully. The behaviour of general practitioners, referral rates and referral characteristics are being measured for the period before the opening of the hospital and for a period of two years subsequent to its opening. The attitude of the population towards primary and secondary medical care is being measured at several set dates. The first results indicate a much lower change in referral behaviour among general practitioners than would have been expected.

The second project in this field is the evaluation of health care in another new polder. The second Zuyderzeepolder 'Almere' is the basis for important experiments in the organization of local health care. From the beginning, the organizational target has been a strong primary health care system and weak secondary health care. This was to be achieved by allowing primary health care organizations to establish themselves firmly before a new hospital was built. The relative number of hospital beds is minimal and emphasis is on ambulatory instead of residential care. Unfortunately the legal instruments required to give this desired shape to the health care organization in the region has been delayed at a national level. This causes considerable problems in achieving the target set. NIVEL is evaluating the results of this experiment in cooperation with the National Hospital Institute.

2.2.2. Primary health care and mental health care (research fellow Nr. 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 psychiatrie

care. A couple of years ago, a series of independent ambulatory care institutions, such as an institution for schoolchildren with problems, an institution for the care of family problems and social psychiatric (after)care 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, but patients discharged from psychiatric hospitals do have direct access for their aftercare. The precise 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 careful referral 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 new policy paper on the mental health problems mentioned above. Questions deriving from this policy paper will govern research in the area for the coming years. The following projects will be carried out in this field:

1. 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 in which questionnaires will be sent to general practitioners and social workers and the same questions will be asked of therapists in the regional institutes for ambulatory mental health care and of 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 some friction between primary and ambulatory mental health care.
2. Task definition and cooperation between general practitioners, social workers and regional institutes for ambulatory mental health care. Task definition in the area of mental health can be ensured by means of the analysis of the existing experiments in cooperation between the three disciplines mentioned above and by the creation of new experiments and the adaptation of existing experiments.

3. Cooperation in primary health care and demands made of mental health services. As there are strong indications that multidisciplinary cooperation in primary health care reduces the number of referrals to secondary medical care, the question arises as to whether this also applies to referrals to ambulatory or residential mental health care. Differences in performance between general practitioners and social workers who participate in multidisciplinary cooperation will be studied. An important question in this project is 'what sort of problems are dealt with in primary health care and what sort of mental problems and patients are being referred'.

2.2.3. Primary health care and public health care (no research fellow)

In the Netherlands public health care is not a specific part of primary health care, although it is in some cases. The Dutch district nurse is engaged in baby welfare and child-care and in home-nursing, but most general practitioners for instance are not engaged in public health care.
Little research is being done in this field. The only project that can be mentioned is called 'child health care'. The aim of this study is to determine whether differences exist between baby welfare and child-care provided by physicians specially trained in public health and by general practitioners. Cooperation between the general practitioner and the district nurse might be one of the principal mechanisms in improving the provision of information on this point.

2.2.4. Multidisciplinary cooperation in primary health care (research fellow Mr. Dirk Wijkel)

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 the multidisciplinary health centre where representatives of all these disciplines cooperate and work together on the same premises. The institute's research activities can be described on the one hand as a thorough description of the phenomenon of multidisciplinary cooperation in primary health care by means of a systematic registration.
On the the other hand, there is a second task in the evaluation of the effect of multidisciplinary cooperation: there are several projects that try to balance the cost and benefit of this phenomenon. There is a third group of projects that forms part of the subject

multidisciplinary cooperation in primary health care and this stresses the formal, organizational and political aspects of that subject.

Description of the projects

a. 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 will also be approached and registered systematically in addition to health centres. The social workers are a source of information on 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.

b. The evaluation of multidisciplinary cooperation

1. Multidisciplinary cooperation and referral rates.

It is generally known that general practitioners in health centres have lower referral rates than gps working alone. The difference exceeds 10% and is persistent over a long period of time. The question is however whether these differences are due to the specific organizational form or whether they are caused by other factors. At the institute, alternative causes are being investigated systematically to see whether they provide an explanation for the differences.

The following might be the alternative causes:

1. structural differences that influence referral rates themselves such as the distance from the nearest general hospital, or the age/sex distribution of the practice population;
2. health centres might attract and select a different sort of patients and
3. health centres might attract a different sort of doctor.

2. Cooperation and referrals: part 2, differences in the use of diagnostic facilities, physiotherapy and the prescription of medicines.

This project is an extension of the former. The subject of analysis is not only referral cards, but also the use of diagnostic facilities, referrals to physisotherapy and the prescription of drugs. It is not known whether the health centres differ systematically from other forms of practice in respect of these parameters.

3. Comparisons between the supply of services in health centres and elsewhere.
   In the past the project registering data on health centres explored a different topic each year. They were:
   1. counselling and guidance on dying and mourning;
   2. obstetrics- and child health care and
   3. prevention.

   These services share a requirement for cooperation between several disciplines, especially between the general practitioner, the district nurse and the social worker. The results of these explorations have been described in monographs. A general questionnaire has been produced with questions on the topics mentioned above. This questionnaire was distributed among general practitioners who were not participating in health centres, but who were running practices alone or in partnership.
   A comparison of differences in performance in these fields has been published in 1985.
4. Social workers in health centres and elsewhere.
   Not only general practitioners, but social workers too practice their profession in different organizational frameworks. Some cooperate intensively with primary care, others only have incidental contacts with it. An analysis of data from the social workers central registration system can establish differences in caseload, content of the problems presented and the duration of treatment as these factors occur in social work practice in different circumstances.

c. Organizational, political and administrative cohesion.
   1. The concept of cohesion.
      Although 'cohesion' is a central concept in health policy in the Netherlands its significance is not always entirely clear. To narrow the gap between this characteristically political concept and empirical social research, a study of the literature will be conducted to explore the different aspects of the concept of cohesion and attempts to find empirical parameters for it.
   2. The preparation and carrying out of local health plans.
      Within months, the new Act on the organization of health care and social services at the local level will most probably become law. It requires the preparation of four year plans and their implementation. Some municipalities have anticipated this Act becoming law (it has in fact been delayed for a

couple of years) and have prepared plans accordingly. Other municipalities are waiting until they are required to act in conformity within the new regulations. An inventory will be made to assess the sort of preparations the different municipalities have made already to estimate the effectiveness of the new Act. Some attention will be paid to the topic of the change and adaptation of the different catchment areas for the most important professions in primary health care. These differences form a major obstacle to effective multidisciplinary cooperation in primary health care.

3. The adaptation of catchment areas in Rotterdam.
   The problems mentioned above involving the overlapping of catchment areas will be studied more carefully in a local situation. The actual dispersion of patients and clients around surgeries and the offices of social workers and district nurses has to be established for this type of study. As fas as social workers and district nurses are concerned the reason for this is that the catchment areas for these professions are always territorially bound, but there are no formal regulations governing for the distribution of patients around the practice of a gp. Data have to be provided by the local Health Insurance Fund, but as the requirements involve the protection of privacy, there is a considerable delay in the implementation of this project.
4. Adaptation of catchment areas: a rough inventory.
   There are several methods which can be used to obtain an idea about the actual overlap between catchment areas in primary health care. One possibility is a detailed analysis like the one mentioned above in the Rotterdam project. A rough idea can be formed about the phenomenon by means of a questionnaire. In this case local organizations such as municipal governments, the local gps organizations, social workers and district nurses are able to answer questions about the size and degree of the adaptation in the catchment area. In the new Act an 80% overlap is a requirement. The inventory might give some information about the feasibility of this formal requirement.
5. The evaluation of the political and administrative organization of health care in Almere
   The health care experiment in Almere (the newest Zuyderzeepolder) has been mentioned already. A separate 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 whith NIVEL as the principal partner.

6. The effects of an establishment policy on the distribution of providers of primary health care
   Several professions are no longer free to establish themselves in practice on an independent basis, this applies to physiotherapists for example. Policy measures have been prepared for general practitioners and dentists. The effect of these new policy measures on the actual distribution of providers of primary health care can be followed by means of the registration system for primary health care professionals.

2.3. Research within primary health care

2.3.1. The professions in primary health care

In the introduction we pointed out that the research projects carried out in this area can be looked upon as cells in a matrix. The columns of the matrix are formed by the various professions in primary health care and the horizontal rows represent areas of interest in the study of these professions. The first of these areas of interest is: manpower and geographical distribution in short the supply of professionals. The second area of interest is the content of the work of professionals. The third is the interaction between the providers and consumers of health services and the fourth, which might be easily be considered as a separate chapter: the use of the services of the professionals.
The first section in this chapter is the matrix row headed: the manpower and geographical distribution of health care professionals.
The second section is dedicated to the work of the general practitioner.
The third to doctor-patient interaction and finally we dedicate several sections to the different professions in primary health care where a specific research programme has been developed. These other professions in primary health care are: physiotherapy, district nursing, midwifery, and others such as dentistry, pharmacy and social work.

2.3.1.1. The supply of manpower and its function in primary health care (research fellow Mr. Lammert Hingstman)

In the 'Sketch of primary health care' (a policy paper published in 1980 by the Ministry of Health) the lack of information on a number

of primary health care professions was emphasized. One of the examples is physiotherapy: one of the largest professions in the Dutch health care system. However, despite this we do not know the number of qualified physiotherapists who practice their profession. No reliable data exist on the number of district nurses (expressed as fulltime equivalents on a regional level) and even the number of midwives varies from source to source. At the Netherlands Institute of General Practitioners in 1974 a data base was set up and has been maintained since that contains personal records of all Dutch general practitioners. Only general facts have been collected but they are collected for all practitioners and for all future general practitioners who complete their post-graduate training. The aim of the data base is two-fold. The first aim is that it yields reliable and accurate information about the composition of the profession and its regional distribution. This information is produced in annual statistical synopses. The data itself can be used as the subject of research. When the regional distribution of general practitioners is known one can try to explain the differences in general practitioner density and predict its consequences. The second aim is to produce a good source of data for further research. The database is being used for drawing samples for questionnaires and other sorts of research. Until 1984, the gp database was the sole database for professionals. Since 1984, a database has also been constructed for midwives. In 1985 a huge task was initiated: this was the construction of a database for physiotherapists. Dentists, pharmacists, and other primary health care professionals may follow in the next few years.
As we have said, there are two databases, one for established professionals and one for future professionals. For a period of about five years all professionals who complete their (post-) graduate training and are formally qualified to practise their profession will receive a questionnaire with questions on their activities in the past year. The questionnaire will be sent to them until they establish themselves in practice, or give up all hope of ever becoming a general practitioner or a physiotherapist.
The response rate so far is impressive, at more than 95%.

Research projects

To avoid sterile statistical synopses, the databases are closely related to a research programme which attempts to explain regional variation in the density of the different professionals and to predict the consequences of this variation for the use of the health services. The following projects are being carried out:

1. Regional variation in general practitioner density in 1969 and 1979. Important changes in the remuneration of general practitioners, the increase in number of qualified general practitioners to have followed their obligatory post-graduate course of training and changes in the population in the Netherlands have influenced the regional distribution of general practitioners over the past fifteen to twenty years. General practitioner density will be related to the income and the composition of the population, the attractiveness of the different areas and the number of competing professionals such as midwives for deliveries and pharmacists for dispensing medicines. Hitherto over 40% of Dutch general practitioners have delivered babies at home and 20% have dispensed medicines.
2. 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 for example.
3. The location of public utilities 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 which has to be conducted to explain regional differences in the density of providers. These are not individual decisions by general practitioners, 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.
4. 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 opportunity 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 gps are women. In a follow-up study a co-

hort 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.

Other professions, the market for obstetric care

Now the midwife database has been completed and an inventory has been made to establish what proportion of general practitioners do home and ambulatory hospital deliveries, the different shares in the market for obstetric care can be established. The number of births is known even for small communities as are the types of delivery. This means the number of home deliveries, clinical and ambulatory deliveries are known and the same is also true for the professional performing the delivery. The considerable change in the past decade can be established in an analysis of regional differences and regional changes in the market share for obstetric care.

Dispensing medicines

In the Netherlands 16% of general practitioners still dispense medicines. A decade ago this number was much larger, but it is still a significant one. Gradually, doctors with their own dispensaries are being replaced by qualified pharmacists. However, the take-over process is not proceeding without protest, as rural general practitioners obtain a substantial part of their income from their dispensaries. The changes over the past twenty years and the dynamics of these changes can be analysed when a database for pharmacists has been constructed. In the general practitioner database, information on dispensing licences is available for a period of over twenty years.

2.3.1.2. Morbidity and intervention in general practice (research fellow: Mrs. Marleen Foets)

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 remunuation exists. The capitation fee for the general practitioner effectively prevents the production of routinely collected 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. So the only type of data that is at the disposal of government policy makers and researchers in the field of general medicine, 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 Stations a limited number of items is being recorded by a 1% representative panel of Dutch general practititoners).

Where it is so self evident that new information on a national scale is needed why is there a reluctance 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 a doctor's personality 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 quata 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 such a case one accepts differences between doctors and practices beforehand 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. We shall go into this problem in more detail later. A concept of 'central coding' should be mentioned here as a possible solution to the problem of the reliability of self recording.

Relevant questions

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 can be solved in primary care and should not be referred to specialistic (secondary) medical care?
  - what 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 a surrounding social network of patients?

A series of concrete research proposals has been constructed on these rather general policy questions.

The first activity to be undertaken is the establishment of a feasibility study, as the scale of the project is so large, that any slight miscalculation could cause enormous financial problems in the end. For 1985 this feasibility study will yield details about the willingness of general practitioners to participate, enable the exact prediction of the cost of the project and test the recording instruments and registration forms. One of the main topics in this feasibility study is to seek to answer the question as to whether the Sentinel practices could participate in the 1986 morbidity and intervention survey. The customary practice of the Sentinel Stations, i.e. the tallying of the prevalence or incidence of precisely circumscribed topics would then be changed to the recording of all morbidity and interventions for one year.

If the feasibility study shows that a large scale morbidity and intervention survey is possible in the Netherlands, the following re-

search topics, deriving from general policy questions, will be carried out:

1. referral rates in general practices;
2. referrals to physiotherapy in general practices;
3. after-care of hospital patients;
4. general practitioner, social worker and (ambulatory) mental health care;
5. prescriptions in general practice;
6. the possibility of a differentiated capitation fee;
7. specific groups in general practice population;
8. the value of multidisciplinary cooperation;
9. self care, social network care versus professional care.

As can be seen from these projects, the effectiveness of the general practitioner's work derives from the number of patients referred to more specialized types of care. One of the instruments used to improve the effectiveness of general practice might be the introduction of a differentiated capitation fee instead of the flat rate fee that is in use now.

A brief description of the projects is as follows:

1. 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 card 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.

2. 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 physiotherapy vary 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.

3. 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 considerable 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.
4. 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 psychosocial problems treated in general practice and on the natural course of psychosocial complaints in families. For this purpose videotaped observations of doctor-patients interaction are a necessity.
5. 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.
6. 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 differences in workload for each general practitioner, the composition of the practice according to those characteristics might form a basis for a differentiated capitation fee.
7. specific groups in general practice population:
   The detection of vulnerable groups in general practice is very important for the estimation of the possible damage of cost containment policy measures. Criteria for the detection of these

groups are: the frequency of consultation and the seriousness of the problems presented.

8. the value of multidisciplinary cooperation:
   Until the present time, the lower referral rates for health centres have been considered major support for the thesis that multidisciplinary cooperation promotes the effectiveness of primary care. It is useful, however, to extend this comparison to cover other criteria i.e. the number of drugs prescribed, the number of referrals to physiotherapy, the use of diagnostic facilities and the influence of cooperation on the average length of stay per hospital admission. On the other hand, the concept of multidisciplinary cooperation should be studied more carefully.
   Comparisons between multidisciplinary health centres and single handed general practices is too rough. Monodisciplinary cooperation and home-team multidisciplinary cooperation should be added to the design of the study. To study this subject in a methodologically correct way the 2% sample of general practices should be supplemented by a sufficient number of mono- and multidisciplinary practices, so that five groups of practices can be formed: fourty health centres, fourty single handed practices without multidisciplinary cooperation, fourty single handed practices with multidisciplinary cooperation and fourty partnerships both with and without multidisciplinary cooperation. Using such a design the concept of cooperation could be studied more carefully than it is in the rough comparison between health centres and single handed practices.
9. self care and care by the social network compared with professional care:
   One of the main disadvantages of a National Morbidity and Intervention Survey 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 should 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 should be approached using mailed questionnaires. A specific

example of the patients will be approached by a more elaborate questionnaire that contains questions about medical consumption and self assessed health status. This information can be used both to corroborate the validity of self assessed health status questionnaires and about the information that is in the doctor's clinical notes. The above mentioned project will be carried out if the feasibility study yields favourable results.

The Sentinel Stations (research fellow Dr. Aad Bartelds, g.p.)

Since 1970 a 1% sample of Dutch general practitioners has been recording items of morbidity and (at present) intervention 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 1985 are the following:

1. the incidence of influenza;
2. cervical smears;
3. Parkinson's disease;
4. sterilization (male and female);
5. morning after pill;
6. malignant tumours;
7. depressions;
8. attempted suicide;
9. cardiac infarctions;
10. peptic ulcers;
11. referrals to physiotherapy.

For 1986 the Sentinel Stations will probably participate in the large scale Morbidity and Intervention Survey in the Netherlands.

2.3.1.3. Doctor-patient communication (research fellow Mr. Peter Verhaak)

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 to-

wards 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.

The collected videotapes will be used in 1985 for short articles on the following subjects: the use of time in consultations (about the variation of the duration of consultations) referrals to physiotherapy (comparison of indications), the development of an instrument for measuring the assertiveness of patients and for an analysis of the kind of psycho-social problems presented.
A central thesis of the Policy Paper on Mental Health by the ministry of health is, that there is a difference between the psychosocial problems of essentially healthy persons and those with serious psychological disturbances.
The first type of problem should be presented to and dealt with in primary (health) care (that is the general practitioner and the social worker) and the second type needs specialized (either residential or ambulatory) mental health care. It is not easy however to draw the line between these two groups. The 3000videotaped consultations can be used for developing an instrument that describes the seriousness of the problems presented. Whether it will be possible to design a discriminating instrument will be determined by the results of the project.
The videotapes also form part of several other predominantly multimethod projects. The use of videotapes is not an absolute requirement, but on most projects they are part of the design.

1. Measuring the effect of patient education and counselling. In 1985 a research proposal will be prepared on the effectiveness of patient education. This research proposal will be based upon the videotaped consultations with follow-up questionnaires which try to establish the effect of the information, education and counselling given by the general practitioner.
2. 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 ques-

tions 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 mechanisms of these changing models of communication.

3. Inter-doctor variance with psycho-social problems.
   In 1985 a final report and a dissertation will describe the results of a three-year project on the determinants of inter-doctor variation in psycho-social problems. In about 35 practices videotaped consultations have been collected, combined with doctor and patient questionnaires. Preliminary analysis has shown that many different features can be combined into one general behavioural style. This style of behaviour can be illustrated by doctors in the varying degree of patient-influence, the number of psycho-social problems detected and the opportunity patients are allowed to present their problems.
4. Problem patients, a permanent label?
   This longitudinal project is a cohort study of problem patients. It is interesting to observe that two years after first being labeled as problem patients, 70% of the patients no longer deserve this label. So the label 'problem patient' is less permanent than could be expected from the study of the literature. In this project, which will be published as a dissertation, different groups of patients are compared. These are: problem patients who lost the label, problem patients who retained it and a comparable group of patients who were not labeled at all. Patient and doctor characteristics are included in the study, and the influence of both will be established. Doctor and patients judgments of one another are important in this respect.

2.3.1.4. Physiotherapy (research fellow: Dr. Peter Groenewegen)

It is astonishing that so little research has been carried out for such a large group of health care professionals. It is in fact a terra incognita. We do 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.

At the institute a research programme has been developed for 1985 that aims at a descriptive study of physiotherapy as ambulatory care. In these studies the demand and supply side are analysed under the conditions of financial and legal regulations. The following projects are part of the 1985 programme:

1. The systematic registration of manpower in physiotherapy.
   Without a complete and reliable database for all physiotherapists, the way in which they practice, the number of future physiotherapists and the still small number of physiotherapists who leave their practice, any research in this field is doomed to be incomplete and unreliable. There has been no such systematic registration hitherto. Professional organizations only cover about 70% of qualified physiotherapists, so their membership records are not complete. The records at the Chief Medical Office only contain qualifications and no details about the actual practice of the profession, so a complete new system has to be set up. The foundation of this system derives from the comparison of different sources, such as the Chief Medical Office, the National Information System of the Health Insurance Funds and the membership records of the professional organizations. On these three pillars a reliable data base can be constructed by comparison. The information will be used for three purposes:
   - to produce statistical synopses of the profession of physiotherapy;
   - as a source of basic information for other types of research, supply and demand models for example, where the number of physiotherapists per capita in a certain region is a typical supply factor;
   - as a database for a reliable source of samples for further research.
2. Physiotherapy as ambulatory health care.
   Physiotherapy does not fit into terms such as primary and secondary health care very well. As a paramedical profession it has no direct access from the public, but physiotherapists usually practise their profession outside institutions in an ambulatory setting. In their relatively limited field they can be considered generalists, so two of the three characteristics of primary health care can be applied to physiotherapy, but the most important one, direct access, can not. A good inventory of the manpower available in primary health care will require extra information about the ambulatory activities of physiotherapists who

are employed in residential setting. It is generally known that in the Netherlands physiotherapists in general hospitals, or in nursing homes provide services for the patients in their neighbourhood who are not in-patients at these institutions. A survey will be conducted that describes the amount of primary health care delivered by employees of secondary and tertiary medical institutions.

3. Physiotherapy with the Sentinel Stations.
   The 45 practices (62 doctors) participating in the Continuous Morbidity Recording System of the Dutch Sentinel Stations will record all new referrals to physiotherapy in 1985. Information will be collected on each referral about the indication for the referral, the amount and type of treatment demanded, and the reason why the patient has been referred. Additional information on the physiotherapist's side will give some idea about the effect of the treatment and the modification that takes place as a result of medication, referral, or actual treatment.
   The aim of the study is to obtain a general description of the frequency of referrals to physiotherapy, the indication of this referral and the relationship between indication and treatment.
4. Supply/demand models in physiotherapeutic care.
   Some Health Insurance Funds in the Netherlands have huge data bases at their disposal with physiotherapeutic services that can be traced back to the referring physician and the physiotherapist responsible for treatment. With this detailed information simple supply and demand models can be constructed where physiotherapeutic density and patient characteristics are (among others) variables in the model. This type of model might yield hypotheses that should be tested on a lower aggregation level.

2.3.1.5. Home nursing, baby welfare and childcare: the work of the Cross Organizations (research fellow Dr. Ada Kerkstra, Mrs.).

In the Netherlands Cross Organizations (Green Cross, White-Yellow Cross) fulfill functions that are fulfilled in other countries by separate organizations, i.e. ambulatory nursing care (home nursing) and baby welfare and child care. The Dutch district nurse usually has two separate tasks. Besides these two main tasks, the Cross Organizations have other responsibilities. They employ dietitians and have a certain role in health information and education, while some local organizations employ special staff to coordinate home and hospital care. The most important functions however are baby welfare

and child care and ambulatory nursing care for the elderly and chronically ill. This is a new topic of research for the institute, so the projects in this field can be considered as preliminary and preparatory pilot studies. The most relevant task, seen from the perspective of health policy, is the home nursing and care for the chronically ill and the elderly. The emphasis is on this function.

Another aspect is that the Cross Organizations might form a suitable base for the organization of primary health care. The organizations are voluntary associations with memberships. The members can vote democratically, (although they in fact do not often use their rights in this respect) for the local board of the association and can influence the work of professionals in this way, so when there is a need to create a comprehensive structure for primary health care, the Cross Organizations might form a suitable base for it.
The following projects are being carried out in this field:

1. Substitution of nursing care on macro and micro levels.
   The project: the substitution of nursing care arises from the idea that close cooperation between the general practitioner, the district nurse, the family assistant and the hospital nursing staff could reduce the average length of stay per admission to the hospital. On a macro level this can be studied by what is called a macro mathematical model, where the density of hospital and home nursing staff, the density of family assistants, the density of general practitioner and the number of hospital beds and specialists are part of the series of equations.
   The problem with this sort of model is that no reliable information is available about the regional distribution of district nurses or of the time they spend on home nursing. This information has to be collected before macro-modelling can take place.
   On a micro level experiments can be set up and evaluated where the principal target is close cooperation between the general practitioner, the district nurse and the family assistant. The type and intensity of cooperation can be measured. Output parameters are the mean stay per admission for different types of admission and the substitution between general hospital nursing, home nursing and ambulatory care.
2. Home nursing and changing policies.
   The increasing number of chronic patients and of the elderly in general will effect the workload of home nurses considerably. At the same time a shift from hospital care to home care is one of the main targets in health care policy, so the Cross Organiza-

tions will have to adapt themselves to new developments.
In two regions, the province of Zealand and regions of East Overijssel (Twente) three different groups of patients: discharged hospital patients, chronically ill patients and elderly patients, who do and do not seek ambulatory nursing care, will be compared on a number of characteristics. These are their need for home care, the composition of their social network and alternatives to the care of district nurses. These will be compared to get an idea of the factors that transform a possible need for care to a real demand. Insight can be gained into the necessity for further policy changes via this case control method.

3. The work of district nurses 1. developing instruments.
As was said in the introduction, most of the instruments required to measure the tasks and functions of district nurses in this new area remain to be developed. Many methods will be applied ranging from observation to questionnaires and the validity of each method will be assessed in this project. The aim of this project is to find an optimum level between intensity (for instance in observation methods) and reliability so that the instruments can be used in a second stage in order to provide descriptive synopses.
4. The tasks and functions of district nurses 2. Descriptive research at a national level.
When suitable instruments have been constructed in the first phase of this project, a descriptive study at a national level can then be carried out. Both projects have been submitted for funding to the Ministry of Welfare, Public Health and Cultural Affairs.
5. Is part-time work for district nurses possible?
Although the continuity of care is an important factor that might prevent district nurses from working part-time, the demand for part-time work has increased over the past few years. A study will be carried out to see whether a complete range of service (with both baby welfare and child care and home nursing) is possible on a part-time basis, or whether the job should be split up into different parts. Another part of the study is to see what sort of part-time work is most suitable for this profession in health care.
6. Home-nursing in Flanders and the Netherlands.
In Belgium there are two different organizations for baby welfare and child care and for home nursing. There is more need for ambulatory nursing care too, because in Belgium the average age of the population in higher than it is in the Netherlands. Compari-

son of both countries could provide information that would help the Dutch Cross Organizations to anticipate the future demographic changes that took place in Belgium about thirty years ago and will take place in the Netherlands in the coming two decades.

7. The Cross Organizations as a base for primary health care.
   This evaluation project will describe what happens when a Cross Organization acts as an employer of general practitioners. In the Netherlands the latter are usually established as independant practitioners, but when they are employed by the Cross Organizations, the opportunity for the comprehensive organization of primary health care is present. The evaluation of this experiment will consider the following: the first question to be considered is that as to whether the largely democratic structure of Cross Organizations enables increased consumers partcipation, the second question is wheater the linkage between baby welfare and child care as public health care and the general medical care of the general practitioner for these groups will yield a better quality of care, and the third question is whether the comprehensive primary care organization will be able to replace hospital care partially by ambulatory care.
8. Measuring instruments on the demand side.
   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 in cooperation with the Department of Nursing Research of the State University of Limburg.
9. Baby welfare and child care.
   Although public baby welfare and child care is no part of the work of the general practitioner, in several cases general practitioners do carry out this work, usually not only for their own patients, but also for patients of their colleagues. It might be interesting to see whether the combination of both functions in the work of the general practitioners yields better results than a separation of these tasks. It is however not easy to find suitable and comparable research settings.

2.3.2. The demand side in primary health care: consumers research (research fellow: vacancy)

Consumers opinions on health care professionals, consumer's rights and the influence of consumers in the organization of primary health care, are increasingly important for modern health care

policy.
In 1984 the institute finished a research project in cooperation with the Netherlands Association of Housewives on the accessibility (geographically and psycologically) of primary health care providers. A follow-up study in cooperation with the Dutch Consumers Organization describes the doctor's and the patient's opinions on relatively sensitive topics in this field of consumer's rights. The following projects are being carried out in this field:

1. Consumers rights and the doctor-patient relationship.
   In cooperation with the Dutch Consumers Organization a sample of general practitioners and a sample of consumers answer comparable questions on the right to pass information to third parties, the right of patients to see their medical records, and many other things. The aim of the study is to characterize the sort of doctor who is more or less reluctant to allow the participation and influence of the patient and to characterize the sort of consumer who does not want this type of influence.
2. An analysis of problems in primary health care in Rotterdam.
   In this project local consumer's organizations have been asked to describe the problems they perceive in the performance of primary health care providers. The list of problems has been shown to the providers organization for commentary. The aim of the study is to provide the local organization and local government with information about the sort of things consumers consider problems and failures in primary health care. A major problem is the limited amount of time general practitioners can spend with elderly and chronically sick patients. The need for more attention and more time is so urgent that even a considerable decrease in the size of a doctor's list will not provide a solution to the problem. There is also a considerable gap between local government policy proposals (an establishment policy for providers and multidisciplinary cooperation in primary care) and the problems as seen by the consumers and patient organizations.
3. The function of patient organizations.
   There is a voluntary organization for each major illness which people who suffer from this illness can join. It is important to analyse the function of these organizations for the members and for persons who suffer from the illness, but are not members, functions on a macro (societal) level are interesting objects for research too, because voluntary associations of chronically sick tend to vary in the way in which they influence society as a whole. In 1985 a research proposal will be prepared and submitted for funding.

2.4. Library and documentation (Head of the Department: Mrs. Alma de Leeuw).

We have thus far described the activities of what used to be the research department of the Netherlands Institute of General Practitioners, but there are other important jobs to be done by the Netherlands Institute for Primary Health Care. There is a professional library and documentation services are being carried out on request. An example of the activities of this department is the preparation of a trend-study on primary health care to be offered to the Ministry of Public Health. By computerizing the information in scientific magazines, reports and books better use can be made of it for research and documentation purposes. In 1985 the library and documentation work will be integrated in the research department so that the difference between research and documentation will diminish.

2.5. Other activities

A major task for a sector institute in the health care system is the recording of all research that is being carried out in this sector. Over the last decade systematic information has been collected about all research both within and outside the institute in primary health care in the Netherlands. Now that the records have been computerized, it is easy to produce statistical synopses of the manpower in primary health care research, the number of projects and the outcome in terms of publications. On request of the research sections in university departments of family medicine the list of key words is being refined. The results of the information system are used in research programming and research policy. Information is exchanged and compared with the three other sector institutes in the Dutch health care system: the Netherlands Centre for Mental Health Care, the Netherlands Institute for Preventive Health Care and the National Hospital Institute. Cooperation between these four institutes has resulted in a report in which the research programmes were compared.

Trend study

One of the main tasks of the sector institute is to give synopses of the situation in a certain field of research. What is happening in primary health care in the Netherlands, which results can be trusted and what are further topics for research. In 1985 a synopsis of re-

search in primary health care will be produced by the research fellows of the institute. Documentation for these chapters is being provided by the documentation department and the different chapters are being produced by the research fellows of the institute. The synopsis will contain the following chapters:

Part 1:

1. Introduction;
2. Policy and planning in primary health care;

Part 2: Professions in primary health care

3. general practitioners;
4. Physiotherapist;
5. District nurse;
6. Midwifery;
7. Pharmacist;
8. Other professions;
9. Social workers;
10. Family assistance;

Part 3: Cooperation within and cohesion of primary health care and other health care sectors.

11. Cooperation in primary health care;
12. Relation between primary and secondary medical care;
13. Relation between primary health care and mental health care;

Part 4: The demand role in primary health care.

14. Consumer in primary health care;
15. Primary health care and the elderly;
16. Primary health care and minority groups;
17. Complaints, illnesses and causes of health;
18. Psychosocial problems;
19. Conclusions.