

NIVEL

RESEARCHPROGRAMME



Netherlands Institute of Primary Health Care

RESEARCH PROGRAMME

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

1.1 Health care in the Netherlands: continuous change

In theory, the Dutch health care system is well-organized. In primary health care, general practitioners, community nurses, home helpers, social workers and physiotherapists - to list the five main professions - provide care for the general population. The care provided, both medical and social care, is of a general nature and generally directly accessible. Specialist care, however, is provided by either medical specialists or mental health professionals and it is accessible through referral. In addition, nursing homes and homes for the elderly provide long-stay accommodation. Finally, what is called 'basic health care' provides preventive care for the population at large.

Within this structure the position of the general practitioner is a special, 'gate-keeping' one. Not only secondary medical care and ambulatory mental health care are channelled through his or her surgery, the same applies to some of the provisions in primary care, such as physiotherapy and the prescription of medicines. GPs generally have lists of some 2300 patients, whereas almost everyone in the Netherlands has his/her own GP, to whom he/she turns first for general help for most health problems.

In practice, however, the system does not function as smoothly as it seems to do, one of the reasons for this being the system of funding. There are different funding systems for many institutions providing health care and for the professionals. The general practitioner, for instance, gets a capitation fee for each publicly insured patient (with an income below (1996) Dutch guilders 59.700 a year, about two thirds of the population), irrespective of the assistance provided, whereas treatment of privately insured patients is paid for on a fee-for-service basis. Physiotherapists are paid on a fee-for-service basis only (up to a prefixed quatum), while community nurses, home helpers and social workers are employed by their respective organizations, all of which work with fixed budgets. In secondary care, most medical specialists are self-employed professionals, who are paid on a fee-for-service basis, although they work within hospitals which also work with fixed budgets.

These differences in the funding system are not conducive to cooperation between the different parts of the health care system.

Starting with the organizational scheme described earlier, health care policy in the seventies and eighties aimed to 'streamline' health care by strengthening the primary care sector. A supposed benefit for the patients was one of the arguments in favour of this policy; reducing the rising costs of the health care was another. In a number of policy documents, the government committed itself to protecting the pivotal position of the general practitioner and to promoting cohesion and cooperation in primary care. The general idea was that local authorities and the state government had to play an important role in planning health care facilities.

An all too strict division between primary care and specialist care has gradually come to be seen as unprofitable. The system functions quite well as long as people have relatively simple health problems that can be treated either at home or, temporarily, in a hospital. However, owing to several factors - such as the ever rising costs of health care, technological innovations and the patients' demands - increasing numbers of chronically ill or elderly patients, who used to get hospital treatment are now receiving help at home as well. The duration of post-operative recuperation in hospital has also been reduced. At the same time the composition of the population is changing: families are getting smaller, resulting in a decreasing amount of informal care provision for the growing proportion of elderly people.

Contrary to the government's policy in previous decades, in the nineties no far-reaching changes are in preparation. Yet, some adjustments will be introduced for the system to work more smoothly - at acceptable costs. First, the gate-keeping position of the general practitioner will be strengthened, stressing his importance in the coordination of care. Second, in future the medical specialists are intended to be integrated in the hospital; their payment will be changed from fee-for-service into a fixed annual lumpsum. This will result in more justice being done to the time spent on communication with the patients. Third, so called 'transmural care' - which crosses the boundaries between the 'echelons' - will be stimulated in order to help these patients who are in need of care provided by different types of professionals in both primary and secondary care.

In this process of change, health care policy aims to improve the quality of care and to stimulate that health care facilities be used appropriately. While the government is committed to withdrawing with respect to the regulation of health care, the professional organizations are playing important roles in achieving both aims.

1.2 NIVEL, the Netherlands Institute of Primary Health Care

NIVEL, established in 1985, is the national research institute for health care, employing 20 senior researchers, 40 researchers and over 40 technical and administrative staff. The yearly budget amounts to five million ECUs. About 40 per cent of the budget is made up of a basic grant from the Ministry of Health. The remaining 60 per cent is raised through contacts with commissioners. NIVEL's applied health services research serves as a basis for decision making in health care policy.

Until recently, NIVEL's field of activity was limited to research concerning primary health care and its relations with public health, mental health and hospital care. However, as the boundaries between the 'echelons' are becoming blurred, this limitation has lost its meaning. Since 1995 NIVEL has, therefore, been taking up research concerning other fields of health care as well.

NIVEL is an independent non-profit research institute. Scientific work can only flourish in relative independence, even where there are specific applications in health care policy. Accordingly, the Institute's Board of Directors represents three parties: professional organizations (medical doctors, nurses, physiotherapists), other parties interested in health care (consumer organizations and health care insurers) and the universities. The Ministry of Health is one of the advisors to the Board.

The Institute's directors, Jozien Sensing and Jouke van der Zee both hold a university chair: Mrs. Sensing at the University of Utrecht (Faculty of Psychology) and Mr. Van der Zee at the University of Limburg in Maastricht (Faculty of Health sciences). Scientific director Peter Groenewegen holds a chair at the University of Utrecht (Faculties of Sociology and Social Geography).

In August 1987 NIVEL became a collaborating centre for primary care within the World Health Organization (WHO).

1.3 NIVEL research into a changing field

Broadly speaking, health services research concentrates on the relations between supply and demand in health care within a social context (legislation, regulation, financing, insurance). Thus, NIVEL investigates which health care facilities are available, the extent to which these relate to demand, and the impact of structure and organization of health care on both the use of facilities and the health of the consumer. Although the changing emphasis in health care policy has had an impact on the NIVEL research programme, primary health care is still its main focus of attention.

A steady base

Since its inception in 1985 the Institute's research programme has been featuring four salient topics.

The first topic is research with respect to the *professions* in primary care. With NIVEL having evolved from the Netherlands Institute of General Practitioners, historically much research has been done on general practice. Considerable information concerning this field was provided by the large scale Dutch National Survey of General Practice, the data for which were gathered in 1987 and 1988. Over the last few years the Institute has been extending its range of attention to other professions in primary care, such as the nursing profession, midwifery and paramedical professions (physiotherapy, speech therapy and occupational therapy). In addition to doing research with respect to these fields, NIVEL also keeps records of the number of established (and prospective) GPs, physiotherapists and midwives in the Netherlands. The records are used as the database both for analysis and supply of manpower and for random selection in scientific research.

Quality of care is a second topic of NIVEL research. In recent years professionals and their organizations have been working hard setting up standards and monitoring the quality of the care provided. NIVEL research into quality systems in health care has shed some light on the actual results. Besides, NIVEL has a long tradition of research, by way of analysing

videotaped consultations, into the communication between general practitioners and their patients. More recently this field of research was extended to include other professionals as well. Besides, a series of research projects is being carried out on the patients' judgement of the care provided - and ways to measure this judgement.

Epidemiological research is a third major topic on the Institute's research programme. The Dutch National Survey of General Practica mentioned before has provided abundant data on health and health behaviour, both in the population and in GPs' surgeries. In addition to this, for over twenty five years a nationally representative group of GPs (Sentinel Stations) have been making weekly reports on a set number of diseases encountered in their practica. The National Information Network on General Practica monitors a growing number of daily activities (referrals, diagnoses, prescriptions, etc.) in some 150 practices.

Finally, as NIVEL is a WHO collaborating centre, *international comparative studies* form an important aspect of its work. Comparing the Dutch health system with systems in other European countries is more than just an interesting exercise. Others may learn from the Dutch experience, where curative and preventive health care are separated, health insurance is divided into public and private sectors, and the GP has a 'gate-keeping function' in the medical sector. Particularly Eastern European countries, that are building up new health care systems, may well learn from the experience in the West. Studying health care in other countries may also encourage the domestic debate on changes in the system and may help us avoid possible pitfalls.

New topics

Owing to the intended changes in Dutch health care, some new elements have appeared in the NIVEL research programme. As the strict separation between primary and secondary care is bound to disappear, renewal of the relations between these sectors is emphasized. Topics to be studied include the co-operation between professionals in different sectors of health care, with a view to improving the quality of care and encouraging appropriate use of health care facilities; the relations between general practitioners, medical specialists and hospitals; and the relation between primary care and mental health care. A series of research efforts deals with the effects of changes in the medical specialists' reimbursement system. Information on the (chronic)

consumers' views on health care facilities will be gathered through a newly set up Chronic Consumer Panel.

In the second part of this booklet the research topics will be described in detail. Research with respect to the professions - GPs, home care, paramedical professions, obstetrics - will be described in sections 2.1 through 2.4. Research on specific subjects - cooperation and cohesion in health care, patient-provider interaction, the patient in health care and professions in health care - is presented in sections 2.5 through 2.8. International comparative studies are found in section 2.9. A description of NIVEL's library and documentation centre is presented in a separate chapter.

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

2.1 General practitioners

(research fellows: Dinny de Bakker, Ph.D., Aad Bartelds, M.D., Marleen Foets, Ph.D., Frans Kok, M.D., Ph.D., Koos van der Velden, M.D., M.P.H.)

In the Dutch health care system the general practitioner plays an important part. He or she (about 14% of the 6.500 GPs are women) is the first professional to whom a patient with a health complaint turns for help. Most problems are dealt with by the GP, either by talking to the patient, giving advice, prescribing medicine or intervening in another way. Other patients are referred to other primary care professionals or to professionals in secondary mental or medical care.

In 1987 and 1988 NIVEL conducted its Dutch National Survey of General Practice, in which 161 GPs recorded all contacts with their patients over a period of three months. In addition data were gathered by means of sets of questionnaires for the GPs themselves, for all of the patients on their lists (basic demographic data), and for a sample of 13.000 of these patients, who were visited in their homes for a detailed poll. This large scale survey has provided information on morbidity (both in the general population and in general practice) and on the GP-interventions. Reports and articles have been published on specific subjects, related to both the population - such as differences in morbidity between men and women and the impact of social support on health and health behaviour - and the GPs themselves: prevention, referrals, prescriptions, handling psychological problems, general workload and differences in work style between male and female GPs, to mention just a few.

Since 1970 NIVEL (formerly the Netherlands Institute of General Practitioners) has been in charge of a project called Sentinel Stations. In this project a group of general practitioners representative of all Dutch GPs provide weekly reports on a set number of questions and diseases encountered in their practices. Some of the items, such as the incidence of influenza, have been recorded continuously from the first year onwards; others have been on the list for a couple of years only. In 1995 the following topics were recorded:

influenza; cervical smears; liver, gall bladder and pancreas pathology; sterilization; prescription of oestrogenes; chronic benign pain; attempted suicide; mammography; pelvic inflammatory disease; urethritis; concern about aids; euthanasia; lyme disease and acute poisonings at work.

A major drawback of the Sentinel Stations project is that it is limited to a relatively small number of topics. Therefore, a National Information Network on General Practica was set up in 1993. This registration system aims to monitor complaints and diseases presented to the general practitioner and developments in the care given, and to evaluate consequences of future changes in health care policy. In this system a growing number of daily activities (such as referrals, diagnostics and prescriptions) in some 150 practices - all of them fully computerized - are monitored continuously. In this project, NIVEL cooperates with the national organizations of general practitioners.

Current projects in relation to general practica include the following:

- Due to changes in the composition of the population, general practitioners will have a growing number of *e/derly patients* in their practica, many of them having complex health problems. Therefore, an insight into the actual care for the elderly is necessary. Many elderly patients turn out to have more than one chronic disease, leading to severe disabilities in their physical and social functioning, to social isolation and regular appeals *tor* care. This 'comorbidity' will be further investigated in future research.
- Providing care for patients with *chronic diseases* is a major task of the Dutch general practitioners. Recently, research has been done into the GPs' treatment of patients with Parkinson's disease and ether neurological disorders, such as multiple sclerosis, epilepsy, and CVA. Research into the treatment of patients with asthma is in progress. Daily practica will be compared with quality standards on the treatment of asthma as published by the Dutch College of General Practitioners.
- A striking feature in general practica in the Netherlands is the assessment and improvement of the *quality of care*. Since 1989, the Dutch College of General Practitioners - the scientific professional organization - has been publishing quality standards for diagnosis and treatment of a great number of disorders. Data *trom* the National Survey have been used in order to compare some of these standards with daily practica. Differences between individual general practitioners have been shown. In the near

- future, determinants of these differences will be analysed. In this analysis data *from* the National Information Network on General Practice will be used. The standards to be studied are these related to acute otitis media, asthma in children, cervical smears, epicondylitis lateralis and low back pain.
- Compared to other countries, the total amount of money spent on *medicines* is fairly high in the Netherlands. The main reason is the absence of price control measures, which has led to the prices of medicines being among the highest in Europe. The consumption of medicines, however, is fairly low. In the National Information Network data on the prescription of medicines in general practice is collected, linking characteristics of the prescription itself and the disease for which the medicine is prescribed. A separate research deals with the prescription of medicines - such as benzodiazepines and antidepressives - for patients with psychosocial problems.
 - Data from the National Survey showed that the *workload* in general practice is largely determined by the number of patients on the list. In a current project, the effects of the workload on content and quality of care will be studied. Also the time management of GPs with 'a busy practice' as well as GPs with 'a busy day' will be studied.
 - Hospital facilities are frequently used by patients who complain about pain for which no somatic cause can be found. In this project, the incidence and prevalence of *chronic benign pain* within general practice will be registered and the medical consumption of the patients concerned will be measured. The effects of this consumption - in terms of costs - will be studied too. The research takes place within the Sentinel Stations project.
 - Efforts of the professional organizations of general practitioners have resulted in *programmatic prevention* having gained fresh impetus. Subsidized by the Ministry of Health, Welfare and Sport, structured vaccination against influenza and screening for cervical cancer in patients who belong to the risk groups are being introduced into general practice. The project will be monitored by using the National Information Network on General Practice.
 - Introduction of *practice nurses* is being considered in some places in the Netherlands. These nurses might take over some of the general practitioner's tasks. The idea is not new: in the United Kingdom practice nurses are quite commonly involved in preventive activities and in the care for the elderly. The aim of this project is to review Dutch initiatives

and to compare them with the British experience. As a result, experiments may be set up and evaluated.

- In the Netherlands *emergency care* outside office hours is provided through arrangements between GPs in locum groups that vary in size from 2 to 15 GPs. Especially GPs in the big cities experience having to work during nights as a heavy burden. Growing (and sometimes unnecessary) demand, problems with drug addicts and chronic psychiatric problems play a part. In Rotterdam therefore, more efficient ways of organizing GP care outside office hours are being considered. This research project studies the feasibility of different options.

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2.2 Home care

(research fellow: Ada Kerkstra Ph.D., Anneke Francke)

In the Netherlands, home care for the (chronically) ill and the elderly and preventive care for 0-4 year-old children are provided by community nurses. With the number of elderly steadily rising and health policy being aimed at helping the elderly stay in their home environment as long as possible, community nursing is becoming increasingly important.

Until recently, a lot of descriptive research into community nursing was needed, as was the development of appropriate methodologies and measurement instruments. Now, research has been extended from community nursing to nursing and home care in general. One of the reasons is the integration of community nursing and home help in daily practice, which leads to a need for research into job differentiation within home care. Furthermore, policy is aimed at cohesion between nursing facilities in primary care and in hospital. Treatments that used to take place in a hospital setting exclusively are being moved to the patients' homes. New skills and technological innovations are, therefore, needed in primary care. Finally, with an impending shortage of nurses, nursing must be made more attractive to future workers. Again, job differentiation might be one of the solutions.

Current projects include the following:

- *Integration* of community nursing and home help will lead to lower (overhead) costs and will help get the right professionals in the right places. At the institutional level, integration has come about in 70 per cent of the working areas. An evaluation of the process is in preparation. In a related project, attention is focused on job differentiation in (integrated) home care. First, a number of job profiles required in community nursing and home help are described. Subsequently, the implementation of function differentiation is evaluated in terms of quality of care, efficiency and attractiveness of the profession.
- In order to promote professionalisation and enhance the attractiveness of the profession, a research project has been set up to study the daily practice of *home help*. In this project, the allocation of care to (future) clients will be studied and a detailed account will be given of the time spent by the helpers on different activities. Attention will be paid to what activities are considered to be (physically or mentally) exhausting and what might be done about them.

- The so-called '*transmural nursing*' can have different forms. Hospital care can be transferred from the hospital to the patients' homes; a 'transmural nurse' can be appointed as a link between hospital and home care; joint protocols can be drawn up for the care provision for categories of patients; co-operation and consultation can be stimulated. An inventory will be made of all forms that are being put into practice already. After that, specific experiments will probably be set up and evaluated.

Nursing homes

In other countries the 'nursing home' is not as common as it is in the Netherlands. In these institutions long-lasting care is given to (mostly elderly) patients with either somatic or psycho-geriatric problems; in some institutions both types of care are given. In the NIVEL research into the nursing homes the content of the multidisciplinary care and its contribution to the quality of the patient's life are the central issues.

- In the care given to elderly people who are getting *demented* a series of methods might be used, such as reality orientation training, validation and psychomotoric therapy. A review of the existing literature will result in an up-to-date description of all different techniques. In addition, the actual use of these techniques in nursing homes in the Netherlands will be described, making clear the conditions that are needed for their proper implementation. In a different study the daily communication and interaction between nurses and patients who suffer from dementia will be studied.
- The *quality of life* in a nursing home can be defined as the patients' judgement of aspects of life such as autonomy and safety, and sensory, physical, mental and social functioning. In this study an instrument is being developed for measuring the (perceived) quality of life of somatically ill nursing home patients.

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2.3 Paramedical professions

(research fellow: Joost Dekker Ph.D., Willem Bosveld Ph.D., Margriet van Baar)

In the Dutch health care system, physiotherapy and other paramedical professions - such as remedial therapy, speech therapy, podotherapy and occupational therapy - are to a large extent part of the primary health care system. What these disciplines have in common is their functional approach to health problems: their goal of treatment is improvement of the patient's functional status and quality of life.

Research into these paramedical professions is important for continuous professionalisation of these fields. NIVEL research with respect to this field relates to these professions' function and position within the health care system, to the process of paramedical care (e.g. quality assessment and appropriate use of facilities) and the efficacy of the care provided.

Some of the current projects are:

- In a long-range project data are provided for evaluative research into *physiotherapy*. In the years to come these data, gathered in a number of practices, will be used in studying the appropriate use of care. In this study, the theoretically 'proper' functioning of physiotherapists - as can be inferred from the literature - will be compared with their performance in daily practice. Topics to be studied include ankle injuries, ultrasound treatment and treatment of elderly patients.
- The efficacy of physiotherapy is partly determined by the patients' willingness to practice at home and to comply with the advice given. A group of twenty physiotherapists will be advised on methods to improve the *compliance* of their patients. Before and after this training, their actual policy in this respect will be registered. In this way the effectiveness of the training programme can be determined.
- All ten paramedical professions in the Netherlands participate in a long-lasting programme set up in order to increase the *quality of care*. In this programme a global policy on quality is developed and specific projects are carried out. Its results are evaluated by NIVEL.
- Patients having *osteoarthritis* in hip or knee complain about pain and limitations in their functioning, affecting the quality of life. Although many general practitioners treat these patients themselves, referrals to physiotherapists are quite common. In this research project a comparison is made between the efficacy of treatment by the GP and that of exercise

therapy given by the physiotherapist. The project was set up in cooperation with the Paramedical Institute and the Universities of Utrecht, Rotterdam and Nijmegen.

- In a randomized clinical trial the effectiveness of strategy training given to *stroke patients* suffering from apraxia is investigated. The training is given by occupational therapists in revalidation centres and nursing homes. The objective of the training is to improve the patient's functioning in daily life.

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2.4 Obstetrical care

(research fellows: Wouter Meijer M.D., Anke de Veer, Ph.D.)

Obstetrical care in The Netherlands is unique in the Western world in its high percentage of home births: 31 % in 1991. Promoting home deliveries is part of the Dutch national health policy. However, this policy is frustrated by a number of problems. First, it is the woman herself who is to decide where her baby will be delivered. According to previous NIVEL research 40 per cent of all men and women between age 20 and 44 prefer home delivery, at least in theory, most of them being relatively young and well educated. Second, both the workload of midwives and the availability of maternity home care may limit the number of home deliveries to be attended by primary care professionals. And, third, co-operation between the professionals concerned and a consistent division of tasks are necessary conditions. After all, an adequate selection of 'low risk' clients for primary obstetrical care (provided by autonomous, fully qualified midwives and GPs), and clients with 'elevated risk' for secondary obstetrical care (provided by gynaecologists) is essential for the functioning of the obstetrical care system.

The following are three current projects:

- In an earlier research NIVEL studied the workload and time spending of midwives. In this follow up project these objective working conditions will be related to subjective factors such as job satisfaction and burnout. This effort may increase the attractiveness of the profession, as the desired and actual working conditions can be matched. As midwives in both primary and secondary care take part in the study, the results can be compared to those of a study undertaken among midwives (most of whom worked in clinics) in Germany.
- In order to reach consensus on guidelines for risk selection, co-operation between primary and secondary obstetric care providers is needed. Co-operation at the local level is, therefore, promoted by the government. The National Organization for Quality Assurance in Hospitals (CBO) stimulates ten obstetrical co-operation groups (involving midwives, GPs, gynaecologists, paediatricians and maternity home care assistants) by means of a five-year programme on closer co-operation and the implementation of quality systems. A NIVEL research project evaluates the process (e.g. improved co-operation) and effect (e.g. improved risk selection) of this programme. The results are intended to support the national policy on obstetrical care.

- The Dutch *organization of obstetrical care* might be interesting for other countries as well. This project focusses on the factors that caused the system to come into being and the factors that help preserve it. The study may produce insights which are of fundamental importance with respect to the obstetrical care reforms in the United States.

English language articles and reports

Hingstman, L. Primary Care Obstetrics and Perinatal Health in the Netherlands. *Journal of Nurse-Midwifery* (1994) 39 (No.5):1-8

2.5 Cooperation and cohesion in health care

(research fellows: Dinny de Bakker, Ph.D., Diana Delnoij, Ph.D., professor Peter Groenewegen, Ph.D., Marc Bekkers, Ph.D.)

In theory the Dutch health care system is an efficient one, but in practice the opposite is true. Health care is provided by many different institutions and independently established professionals, each with its/his own culture, organizational characteristics and financing structure. Cohesion and cooperation is, therefore, not a matter-of-course. Over the last few years, government policy has changed in favour of promoting cohesion with respect to specific elements of health care (such as: nursing, general medical care, psychosocial care) rather than promoting cohesion within 'echelons' such as the primary care system.

Still, home care - for patients needing intensive care from both primary and secondary care providers - not only requires cohesion between both sectors, but also cohesion and cooperation within the primary care sector itself. This cooperation can be internal within a professional group (e.g. GPs), between two groups (e.g. GPs and community nurses) and among various groups in a team. These teams may be housed together in a so-called 'health centre', which implies multidisciplinary cooperation between GPs, community nurses and social workers at the least (and often supplemented by physiotherapists, midwives, home-care helps and other professionals) in a single building.

Current projects include the following:

- Until now, these *health centres* have been subsidized by the government. In the near future, however, deals will have to be concluded with the local insurance companies. In the negotiations the supposed cost-effectiveness of multidisciplinary cooperation - e.g. fewer referrals to secondary care - is a major item. In the city of Eindhoven, health centres and an insurance company agreed on a future 'bonus-malus experiment' in which the centres will be allowed to keep the money they save. In preparation for this experiment the insurer provides a utilization review. NIVEL is evaluating this preparatory phase.
- In the Dutch health care system, the general practitioner plays an important role as regards access to secondary care. In a number of studies patient *referral to medical specialists* is being analysed, including what the chances are for a patient with a certain complaint to be referred, and the division of labour between general practitioners and specialist. The specialists under study include internists, cardiologists,

orthopaedists, gynaecologists and rheumatologists.

- In theory, *privately insured patients* - like publicly insured patients - requiring specialist treatment have to first see their GP in order to obtain a referral. Insurance companies not forcing their policy holders to follow this procedure might undermine the gate-keeping position of the general practitioner. The companies' policy in this respect is studied in this project. The study will also make clear which groups of patients are inclined to visit the medical specialist without first seeing their GP - and for which health problems.
- Even in a small country like the Netherlands regional differences are found in the use of *hospital facilities*. In order to explain these differences, a model suggesting that medical specialists orient themselves to a 'local standard' has been set up. This standard could serve as a basis for medical decisions concerning e.g. the length of hospital stay, the use of diagnostic and therapeutic interventions and hospital or out-patient treatment. Apart from the specialists, general practitioners, nurses and patients too might have a say in these matters. The model will be tested empirically.
- As indicated in the introduction, the medical specialists' *reimbursement* will be changed from fee-for-service into a fixed annual lump sum. As a result, medical performance and the costs of specialist care will most probably change. These effects can be predicted by comparing self-employed specialists and specialist who are - already - in salaried employment. Data for this study will be supplied by an insurance company.
- Since 1990 Dutch health care providers have been responsible for the development of *quality systems* for continuous control and improvement of the quality of care. NIVEL conducted a series of research projects with respect to the development and implementation of quality systems. With the help of a questionnaire issued among a sample of institutions in different sectors of health care, a representative picture of the state of affairs was obtained. As a sequel to these studies, future research will be focussed on factors influencing the introduction of quality systems in the institutions and on the effects of quality systems on the quality of care. Also, research will be undertaken into quality policy in nursing (in hospitals, nursing homes and institutions for home care and care for the disabled), welfare (day nurseries) and alternative medicine.
- An all too strict separation between the 'echelons' hampers the cooperation between professionals who take care of individual patients.

All over the country *experiments* have been set up in order to find a solution to this and other structural problems: in one place hospital nurses are now also visiting their patients at home; elsewhere home helpers and community nurses have found new ways to improve their cooperation. These experiments may also be of great value to people other than those who are directly involved. In consequence, a Databank Innovation of Care has been set up, in which these experiments are being registered; by the end of 1995 almost 4,000 projects had been included. In this project, NIVEL cooperates with other research institutes.

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2.6 Patient-provider interaction

(research fellows: professor Jozien Sensing Ph.D., Peter Verhaak Ph.D., Emmy Sluys, Ph.D., Sandra van Duimen, M.A.)

The interaction between doctor or nurse and patient influences both the presentation of complaints and the outcome of that presentation. A collection of videotaped consultations of general practitioners forms the basis of a number of research projects, specifically - but not exclusively - aimed at analyzing the treatment of patients with psychological complaints. Recently, NIVEL research into communication was extended to include other professionals as well, medical specialists in particular.

Current projects include the following:

- There is a current view that *female GPs* communicate differently with their patients than do male GPs. Female GPs are supposed to be more interested in the psychological aspects of their patients' complaints and to show more warmth and overall interest. These characteristics might be found even more clearly among GPs who work mainly with female patients, e.g. in a women's health centre. In order to investigate these assumed differences, videotaped consultations of female GPs in such a centre are compared with those of both female GPs in a regular setting and male GPs.
- One out of seven consultations in general practice involves a child. However, communication between GPs and *children* has hardly been studied. Over the years, the doctors' attitude may have changed. Today's doctors may see the child itself as a partner in communication, instead of its (accompanying) parent. They may also discuss the psychological aspects of the complaint. As the first videotaped consultations date from the seventies, a comparative study can now be undertaken.
- When the medical specialists will no longer be paid on a fee-for-service basis, they will possibly start spending more time talking with their patients. Therefore, NIVEL has started a series of research projects into the doctor-patient communication in *secondary medical care*. In one of these projects a group of medical specialists will receive a training in communication. Before and after this training, the participants' behaviour will be compared with that of specialists who did not receive training and that of specialists who recently entered into some kind of salaried employment.

- In a hospital in the city of Zwolle *patients with diabetes type I* are trained in monitoring and regulating their blood sugar level themselves. Meetings of nurses and internists with their patients have been videotaped in order to investigate what communication techniques are needed for properly educating these patients.
- Communication between *nurses* and their clients is an important aspect of quality of care. In this research project nurses and helpers in a home *for the elderly* are trained in improving their communication with the clients. Subsequently, the effect of this training on the quality of care given by them is measured.
- The different position of the general practitioners within the various health care systems in *other countries* might lead to differences in their communicating with patients. NIVEL is engaged in a EU funded concerted action, aimed at analysing these possible differences. Among the countries participating are Belgium, Germany, the United Kingdom and Spain. In a separate research project differences in communication between GPs in the Netherlands and GPs in the United States are being analysed.

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2.7 The patient in health care

(research fellows: Marleen Foets, Ph.D., Loe Peters, M.A., Roland Friele, Ph.D.)

Although each investigation in the fields mentioned so far affects the patient or consumer, in this particular field he or she comes first. Two sets of research topics stand out. The first has to do with health and morbidity in the general population and access to care. Among others, socio-economic status and place of residence do have an influence on these subjects. The second set of topics has to do with the patients' assessment of the quality of care given. In some respects, patients and professionals share views on quality; in others, however, patients see things differently. In the NIVEL research programme patients are heard in the Consumer Panel, set up in cooperation with the Consumers' Association, which acts as a monitoring station in respect of primary care. A panel consisting of chronically ill patients is in preparation.

The following are some of the current projects:

- The Dutch National Survey of General Practice provides data on the relation between health and *socio-economic status (SES)*. In a research project NIVEL will, first, assess the validity of the concept of SES and SES-specific morbidity. SES-indices such as profession, training and income will be supplemented by indices such as living conditions, age, life style and network, together to form a so-called 'index of deprivation'. The treatment of deprivation-specific morbidity in general practice will be analysed.
- Same eleven thousand respondents to the patient questionnaire in the Dutch National Survey of General Practice kept a '*health diary*' for three weeks after the interview. This material makes it possible to describe the incidence and prevalence of health problems and the resulting health and illness behaviour. Both will be related to characteristics of life style and social position (to be described in social, economic and cultural terms).
- Although the Netherlands is a highly urbanized country, inhabitants of cities still make use of medical facilities more often than do inhabitants of rural areas. The explanation for these *regional differences* is the subject of this research project. Differences in life style and way of living are taken into account, and also the supply of professional and non-professional help and the (actual and perceived) health of the population.

- Some 1500 households participate in the *Consumer Panel*, set up in 1991. They are interviewed at regular intervals - either by means of written questionnaires or by telephone - on issues that are important for patients in primary care. So far the topics have been (among others) polio vaccination, preferences for a male or female professional, waiting periods in the hospital, influenza and influenza vaccination, quality of care and need for information.
- By definition, *chronically ill patients* have lots of experience with health care. Therefore, after completion of a pilot study, a similar panel made up of representatives of this group of patients will start in 1996.
- Notwithstanding the supposed importance of *the patients' judgement of (home) care*, few instruments exist by means of which this judgement can be measured adequately. This research project aims to develop an instrument of measurement for assessing the patients' judgement. Four categories of patients will be included in this project: people suffering from respiratory and rheumatic disorders, disabled persons and elderly people who are in need of help. Patients' organizations have been asked for their cooperation.
- In a separate project, an instrument is being developed for measuring *the patients' judgement of continuity of care*. Important aspects are the professionals' reactions to changes in their patients' demands and the transfer of care from the one professional to the other. Patients with respiratory and rheumatic disorders, MS and dementia and mentally handicapped patients will be included in this study.
- In 1994 three *'coordination centres'* were set up with a view to improving the quality of care for the chronically ill. These centres occupy themselves with educating professionals, providing information and promoting the coordination of care. NIVEL evaluates whether the functioning of these centres is in harmony with these theoretical goals and what role they play in improving the quality of care.

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Kooiker, S., T. Christiansen. Inequalities in health: the interaction of circumstances and health related behaviour. *Sociology of Health & Illness* (1995) 17 (No.4):495-524

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2.8 Professions in health care

(research fellow: Lammert Hingstman, Ph.D.)

Information on the supply of professionals is important for planning health care. However, on a national level data are either absent or incomplete - with the exception of NIVEL's registration systems for a number of professions. In the past year NIVEL conducted some studies with respect to the future need of professional help. These studies have yielded an indication of the number of trainees needed. Finally, some research was done with respect to related topics, such as the need for part-time work.

- Three NIVEL *information systems* contain data on all Dutch general practitioners, physiotherapists and midwives who are either practising or have graduated but not yet settled in practica. The information systems have a twofold objective. They are used as a database, first, for analysis of manpower and supply (e.g. research into size and characteristics of the professional group, in terms of age, sex and regional distribution) and, second, for random selection in scientific research. Similar systems of occupational therapists, gynaecologists and paediatricians are in preparation.
- Since 1977 NIVEL has systematically recorded all changes in composition and regional distribution of the *health centres*, about one hundred and fifty, in the Netherlands. From 1985 onwards, multidisciplinary teams that do not share common premises have also been registered. The resulting database has been used for statistical surveys and provides data for further research into cooperation and its effects on the quality of care.
- The *supply of professionals* needed in the future can be predicted by dividing the supposed demand for professional care by the amount of time a professional can spend on direct patient care. The supposed demand is influenced by possible changes in the number and composition of the population (for instance: an increase in the proportion of elderly). The time available for patient care is the result of changes in the practica of the profession, for instance a shorter working week, longer holidays, longer consultations and more time spent on other activities, such as practice organization, education and consultations with colleagues. The estimated future supply needed results in an estimate of the number of students having to graduate annually. On the request of the professional organizations, NIVEL has conducted such studies among general practitioners, gynaecologists, occupational therapists and

paediatricians.

- With the increase of the number of women in the profession, more and more physicians will be working *part-time*, which implies that a larger number of professionals will be needed. NIVEL is now working on an inventory of part-time workers among internists, surgeons, ophthalmologists, psychiatrists, anaesthetists, general practitioners and doctors in social medicine.

2.9 International comparison of health care systems

(research fellows: Wienke Boerma, M.A., professor Peter Groenewegen Ph.D., professor Jouke van der Zee, Ph.D.)

International comparison of health care systems is stimulated by a number of developments. First, health care systems in Western European countries share some problems such as cost containment, quality assurance and accessibility of care. Second, European integration offers a framework for comparative studies. And, third, the end of Communism has led to profound changes in the health care systems of the countries in Eastern Europe, which have been supported by the World Bank and the European Union. Comparative studies are useful as a source of information on systems in other countries, for the analysis of health care systems and for policy development.

The NIVEL documentation centre for health care systems plays an important role in providing documentation on other countries. E.g. a large scale European study on task profiles in general practice, subsidized by the European Union, provides specific information. Analysis of health care systems focuses on the influence of the organization of health care on the professionals' daily work and on changes in the structure of health care systems themselves. As for policy building, comparing the Dutch health care system with systems in other countries may stimulate the domestic discussion on possible future changes. Conversely, others may learn from the Dutch experience. This applies in particular to the countries in Eastern Europe, which are now building new health care systems. The advice of the Dutch is clear: no primary care can be set up without 'protective' measures such as the general practitioners' gate-keeping function.

Current projects include the following:

- Over the past few years NIVEL has been developing a permanent **documentation centre for** health care systems, including the ones in countries of Central and Eastern Europe. The aim of the NIVEL documentation centre on health care systems is twofold. First, it sustains the comparative studies carried out at the institute. Second, publications will be made on important topics, such as the organization of primary care in different countries.
- **Variation among GPs** in the provision of services is a well-known phenomenon. This variation results not only from personal factors, but

also from features of the health care system and *from* the availability of other health facilities in the practica area. With financial support of the European Union and in collaboration with the European Office of the World Health Organization (WHO), NIVEL has set up a large scale research project into these differences. A large sample of GPs in 32 European countries has been questioned by mail. Subjects of this study include the role of GPs as the point of entry to health care, involvement in medical technical procedures, disease management and prevention. Besides, information has been collected on practica organization, the GPs' time management and job satisfaction.

- The supply of hospital beds is an important determinant of regional variations in *hospital admission and length of stay*. This relation is described in 'Roemer's law': a bed built is a bed filled. The strength of this relation varies in time and is not the same within different health care systems. The possible mechanism underlying this law has been formulated into hypotheses that will be tested in a number of European health care systems and at different points in time.
- The PHARE-fund was created by the EC and the World Bank in order to help *Eastern European countries* build up a market economy by privatizing parts of the state bureaucracy. In Hungary and the Czech Republic health care was chosen as one of the priorities. Introduction of the general practica as an integrating element should lead to improvement of the effectiveness of the health care system. NIVEL is one of the partners in the development of these plans.
- In most European countries the general practitioner plays a role in the provision of *epidemiological data*. However, because of differences in the health care systems, these data are hardly comparable. In a concerted action - in which English, French and Belgian researchers are participating as well - NIVEL studies the feasibility of harmonizing these systems for use in epidemiological research.
- Since 1988 a number of *sentinel stations* in Europe - including the ones in the Netherlands - have been collecting data on HIV-testing. These data yield an insight into the public's response to aids. In the near future, NIVEL's sentinel stations will also participate in an early warning and surveillance system for influenza in Europe.

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Zee, J. van der, T. Abel. From Utilization to Evaluation. In: G. Lüschen, W. Cockerham, J. van der Zee. Eds. Health Systems in the European Union. Diversity, Convergence, and Integration. München: R Oldenbourg Verlag, 1995

3. LIBRARY AND DOCUMENTATION CENTRE

(head: Alma de Leeuw, M.A.)

NIVEL's library is the important centre *for* information on primary care . The collection contains more than 12,350 books and reports, over 200 annual reports, subscriptions to 120 periodicals and magazines, and a large number of works of reference and loose-leaf editions. The heart of the collection is formed by a rapidly growing collection of journals and articles (approximately 39,000).

The total collection - more than 50,000 titles - is computerized and is easily and quickly accessible by means of key words, author, year of publication, language, titles, etc.

In addition to lending out books and reports (also on request by telephone), the library provides ether service as well. Bibliographies on special topics or combinations of topics can be obtained at little cost. In addition there is the monthly list of acquisitions, which gives an overview of the library's new acquisitions and of current research in primary care.

In cooperation with the Dutch Institute of Mental Health a documentation system on quality of care has been set up in which relevant literature is being catalogued.

Finally, the library and documentation centre publishes an annual report plus diskette on 'ongoing' and completed research on primary care in the Records of Scientific Research in Primary Health Care. This report also includes Dutch dissertations on topics relevant to primary care which have been published in the current year. NIVEL, in cooperation with ether institutes, is setting up a database on nursing.

4. SOME PRACTICAL INFORMATION

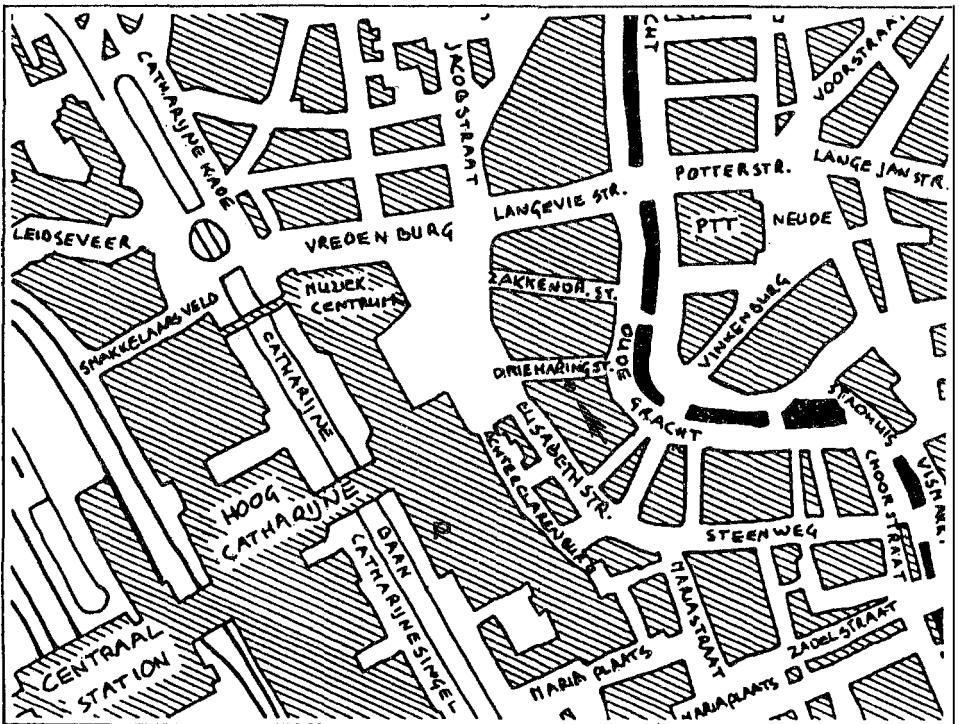
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