CONTENTS

Preface

This thesis is the result of a study at the NIVEL (Netherlands institute of primary health care) in Utrecht. It is presented here as the final thesis for graduating from Maastricht University, Faculty of Health Sciences, department of Health Policy and Administration.
The study started in the middle of February 1997 and was finished at the beginning of September of the same year. In that time a literature study and interviews with experts in Sweden, Denmark, England, Belgium and the Netherlands have been conducted.

This thesis will be of interest to primary care researchers and health policy makers around Europe since it is an issue of importance in many countries of the European Union. It provides a literature study on the factors that are of influence on the use of acute health care out of hours. Furthermore it provides a description of the role of primary care in acute health care out of hours in the five selected countries. This study can serve as a reference for countries considering to change their system for acute health care out of hours.

This thesis could not have been finished without the help and support of several people.
First of all I would like to acknowledge the help of the NIVEL who has provided me with a subject, a room and the possibility to travel to the experts in their own country. I enjoyed my first modest encounter with international comparative research very much.

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Part I

Chapter 1 Introduction

Acute health care out of hours (outside office hours) is currently discussed in many of the countries of the European Union and described in the scientific literature (e.g. France: Steg, 1994; Portugal: Tamborero et al., 1990; United Kingdom: Hallam et al., 1996; the Netherlands: Schuller, de Bakker, 1996). The discussion is not new, some reports date back more than a decade (e.g. Davies, 1986; Hansagi, 1987; Bentzen et al., 1987; Moore, 1972). In recent years, increased demand outside office hours has been reported in several countries (Hallam et al., 1996). Among the reasons mentioned for this are a more convenience oriented attitude among consumers and patients and broader social changes like decreasing support for the elderly and a decreasing length of stay (Capewell, 1996). It is also argued that organisational factors account in part for the increased demand. One of those organisational factors that is mentioned is access to different acute health care provicers out of hours (Roberts, Mays, 1997). The accessibility of acute health care out of hours determines to a large extent the feeling of safety of the public. It is in the public interest to organise acute health care out of hours as efficient and effective as possible.

New developments in acute health care out of hours have focused at the notion of substitution of primary for secondary care. That means, shifting some of the services currently provided in hospital to the primary care sector, thereby reducing the requirement for hospital care. The principal benefits are to be expected in terms of a more patient-centred service and the release of resources. Accident and emergency departments (A&E) offer open access to specialist assessment and treatment facilities. The service is largely led by patient demand and demand has steadily been rising. New models of care are being explored for those patients who attend the A&E department, but who do not require specialist hospital care, often categorized as 'inappropriate' attenders (Robert, Mays, 1997).

Although the large amount of literature on the subject demonstrates the interest in the field in the separate countries, there has not been any study which systematically described the arrangements out of hours per country. There has been systematic comparative research into other areas of health care systems, e.g. into home care (Hutten, Kerkstra, 1996) or primary health care (Boerma et al., 1993). There have also been many comparisons of countries on aspects of the health care system on the macro-level, like Hurst (1992) and van Kemenade (1993). These (and other) comparisons and descriptions reveal little about the organisation and financing of acute health care out of hours.

Also Edwards (1996), Hallam (1994) and Dale et al. (1996b) recognize that there is a need for more understanding of the alternative modes of care available and the attitudes

of patients, lay carers and professionals. There is a need for an overview of the scene in the countries of the European Union. The lack of common measures of out of hours activity, makes comparisons between services and countries on a comparative base difficult.

EMOCA (acronym for European Study on the Use and Supply of Out-of-Hours Health Care) aims to fill this gap (for a description of EMOCA, see Appendix 1). Before being able to conduct EMOCA, a base line description of the organisation and financing of acute health care out of hours in several countries is needed. This is the purpose of this study. The purpose can be translated into the following aims: firstly, to describe the organisation and financing of acute out of hours care in a number of selected countries and secondly to make an inventory of the difficulties and developments in acute health care out of hours in these countries. The relevance of this exercise is in bringing interesting differences to light which can be used in redesigning acute health care out of hours in the separate countries. Needless to say, in the end it is the patient who will profit from a more effective and efficient organisation.

Definition

The object of our study is very broad. No generally accepted definition of the subject area could be identified. Acute health care out of hours concerns a wide range of health problems, with varying degrees of urgency presented to various providers and services during evenings, nights and weekends. The domain of care to be covered by this study are the regular somatic services, like general practitioners (GP) and Accident and Emergency (A&E) departments. In defining acute care out of hours we exclude mental health crisis services, drugs- and alcohol abuse services, dentists, pharmacists and (regular) home care. Traumatology, ambulance services and other emergency medical assistance services are out of our scope. 'Out of hours' suggests a limitation by time: outside the regular office hours. These limits may be set at national level; between countries, however, there are too many differences to use time limits uniformally. For this study the emphasis is placed on the role of primary care in acute health care out of hours since A&E departments are more or less similarly organised across western European countries.

Research questions

The aims of this study have led to the formulation of the following research questions:

1. How is acute health care out of hours organised and provided in the selected countries?

2. How is acute health care out of hours financed in the selected countries?
   a. How are physicians involved in acute health care out of hours remunerated? Does the remuneration out of hours differ from the remunaration during office hours?
   b. Do patients have to contribute financially for acute health care out of hours in addition to the contribution for health care in general?
   c. What are the costs of acute health care out of hours?
3. What are the specific problems and recent developments in the delivery of acute health care out of hours in the selected countries?

Structure of this paper

This thesis is divided into three parts. Part one (Chapter 1 to 3) provides a literature study resulting in the framework of the description per country. In Chapter 3 the methods used for this study and methodological issues related to international comparative research will be described. Part two (Chapters 4 to 8) will provide the descriptions of the organisation, the financing, problems and recent developments of acute health care out of hours in five European countries (Denmark, Sweden, the United Kingdom, Belgium and the Netherlands). Part three concludes this study with a presentation of the results on certain aspects and the interpretation in the light of the literature. This thesis will conclude with a discussion and recommendations for further research. In the end, a summary in Dutch and English will be presented.

Chapter 2 Framework

2.1 Introduction

In this chapter a background to the descriptions in Chapter 4 to 8 will be provided.
This chapter consists of a description of the factors that are of influence to the organisation and financing of acute health care out of hours. These factors are divided into demand-related and supply-related factors. Also recurrent themes from the literature will be put together. From this background study, a relevant framework will evolve which will be used to describe the separate countries in a systematic and complete manner according to the research questions mentioned in the previous chapter.

2.2 Factors that influence the use of acute health care out of hours

2.2.1 Demand-related factors

It is clear that not all health problems in society reach the health care system. Evidently, there is a strong relation between experienced health status and the utilization of medical care, but often health problems are dealt with by self care or informal care (Boerma et al., 1994). The question which is then left to answer is what explains which people consult a GP or another health care provider and which people do not. Singh (1988) showed that the simple occurence of health problems is not the defining variable in contacting acute health care out of hours. The severity, the duration and the acuteness of the complaint determine whether a person seeks health care. In addition to features of the health problem there are patient characteristics, opinions and values that influence the use of health care. The tendency to make use of health care is connected to trust in medical care, opinions about disease and to habits (van der Maas, Mackenbach, 1995). Partly these are reflections of cultural values and social-psychological factors, differing both between and within countries. Other patient characteristics to the decision to seek care are age, education, social background (Hull, 1997) and personal environment. Van de Lisdonk (1985) demonstrated that 'faith in medicine' was an important indicator which discriminated between persons with high and low medical consumption. Research by Kooiker (1996) corroborated this result. Kooiker (1996) also showed that a GP is likely to be visited when symptoms are new, unknown, irritating or worrying. In decisions to attend Accident and Emergency (A&E) departments, concern and the role played by concerned others is particularly important (Singh, 1988; de Jongh, 1990). With regard to non-urgent symptoms, 'medicalisation' and consequent increases in unnecessary use of health care

facilities are undesirable because they lead to unnecessary spending of (either public or private) funds. For the patient this is also undesirable since it incurs unnecessary anxiety and dependency (Kooiker, 1996). The importance of previous experiences of health services and contacts with health professionals require wider acknowledgement (Hopton et al., 1996). The pursuit of a model of out of hours care based on medical necessity that neglects the psychosocial context of illness may not be appropriate.
Financial accessibility is also of influence to the use of acute health care out of hours. When patients have to pay co-payments or are not fully covered for it by their insurance, they may have different demand patterns than patients who can walk in and out of A&E departments without personal financial consequences. Costs of transport may also be prohibitive to seeking care (Hallam et al., 1996).

2.2.2 Supply-related factors

Factors related to supply can be subdivided into factors that relate to the national health care system (organisation and financing) and factors that are related to the local situation (access, practice conditions, organisation of duty arrangements and quality assurance).

2.2.2.1 National health care system

Organisation
Features of the health care system can influence the use that is made of acute health care out of hours. An important aspect of the organisation of the health care system in this respect is 'gatekeeping' by general practitioners. The notion that effective primary care reduces patient usage of A&E departments is widely accepted. Gatekeeping by GPs is an advantage of health care in several countries in Europe e.g. the Netherlands and the United Kingdom (Hallam et al., 1996). Important barriers against unnecessary use of A&E departments is a combination of gatekeeping and the contractual obligation to provide twenty four hour care to the patients who are on the GPs list. In a study in France, the lack of a gatekeeping general practitioner was found to be a major risk-factor for non-urgent visits to an A&E department (Lang et al., 1996). Especially in big cities it becomes more and more clear that the A&E departments are also used more often for non-urgent acute pathology that could have been dealt with by the general practitioner. Patients then get unnecessarily to a higher medical echelon which is less efficient, more expensive and damaging to the continuity of care (van Putten, 1991). Freedom of choice for patients to all sources of health care is another feature that is seen as important in certain countries. This means that patients have a choice where to go to for their acute health care out of hours. It might lead to more demand for higher levels of health care and to inappropriate demand.

Financing

Payment systems can be described along three lines (Reinhardt, 1985). According to Reinhardt, payment systems basically consist of three features given that there are three parties in health care: patients, providers and third-party payers (government or health care insurers). Their possible implications for acute health care out of hours are described below.

a. How does money flow from individual citizens to a central fund: how is health insurance organised, publicly or privately; how is the money raised, by premiums or by taxation?

The different arrangements with regard to health insurance can affect accessibility of care. Private insurance may pose problems of lacking solidarity, especially if it is offered by for-profit organisations. People who have to purchase private health insurance, do not necessarily have to be very wealthy. On the other hand, if there is no link between consuming health care and paying for it, this might lead to unnecessarily high consumption.

b. How does the money flow from the central fund to the providers of health care: are providers paid directly by health insurers or does the patient pay the provider followed by reimbursement by the health insurance?

There are two ways in which the doctor can be paid: either by direct payment by the sickness fund, insurer or the government or by the patient (who may get reimbursed for it). In the latter case, there are three possibilities:

- co-insurance: the patient has to pay a percentage of the costs of care
- co-payments: the patient pays a fixed amount of money per item of service
- deductible: the patient pays all the costs up to a ceiling.

In general the main advantage of introducing some form of cost-sharing is that it discourages people to seek help for minor problems. The main disadvantage is also that it may keep patients from consulting a doctor when they really need it.

Selby et al. (1996) studied the effect of a co-payment on the use of an A&E department in an HMO in the United States. The introduction of a small copayment for the use of the emergency department was associated with a decline of about 15% in the use of that department, mostly among patients with conditions considered likely not to present an emergency. O'Grady (1985) analysed data from the Rand Health Insurance Experiment and found that the patients liable for co-payments were significantly less likely to visit the emergency department in the following three years. He found that the absolute size of the co-payment did not seem to be of influence. Furthermore they demonstrated the effect of co-payments on visits for both urgent and less urgent diagnoses. For accidents or serious illness the co-payments had no effect. Reductions in the appropriate use of services where even brief delays may be harmful and adverse effects on health were not demonstrated.

c. What is the unit of payment for remunerating providers: a salary, fee for service or on capitation base?

The way in which physicians are paid is thought to affect physicians' behaviour, and the outcome of this behaviour in turn, affects utilization and health care costs.

The remuneration systems differ with respect to the relation between income on the one hand and time invested in providing care on the other hand. In a fee for service system, a GP is rewarded for the investment of extra time. Just the opposite occurs under capitation payment. These differences also come to the surface in the provision of acute health care out of hours (Boerma et al., 1994). GP payment on a fee for service basis is known for inducing more activity. In Denmark for example, the fee for service system gave rise to ever-increasing costs for the night service (Olesen, Jolleys, 1994). In 1990, out of hours services were reformed in Denmark. General practitioners continued to be paid on a fee for service basis, but different fees were set according to the type of care provided. Since then GPs answering patients' telephone calls have got an incentive to complete calls by offering telephone advice since the fee for this is higher than for offering patients a clinic consultation or home visit. Home visits are paid according to the time taken to complete a visit (Olesen, Jolleys, 1994; Hallam et al., 1996). In the UK the payment of night visits by GPs was also changed. The period general practitioners could claim night visit fees was extended with an hour and a differential payment was introduced with a higher rate for visits made by the GP himself and a lower rate for visits made by doctors from a deputising service (for a definition of deputising services see below). The number of night visits rose, and could not be completely attributed to the extended hours for which they could claim night visits (Salisbury, 1993).

Costs

Another aspect of the financial influence in providing acute care out of hours is that by dealing with patients in A&E departments who could have been dealt with in general practice, costs are raised. It is difficult to calculate the possible economic gains or losses of trying to move some of the hospital based treatment of minor trauma to general practice. The main problem is the difficulty of estimating the real cost of treatment of patients with minor trauma in a hospital which is functioning as an emergency hospital and therefore has to staff on call 24 hours a day. First we have to define which costs to include. Fixed cost are defined as those that are not dependent on volume and variable costs as those that are dependent on volume. Fixed and variable costs may either be direct, such as the costs for medical staff, ancillary services and supplies, or indirect, such as overhead and administrative costs. The marginal costs can be defined as the extra costs for one additional visit. Williams (1996) examined the marginal costs of non-urgent visit to an A&E department. It has to be kept in mind that the study was set in the United States where A&E departments attract a lot of under- or uninsured people which inevitably

influences charges and costs. Williams concluded that the true costs of non-urgent care in the emergency department are relatively low. The potential savings from a diversion of non-urgent visits to other forms of health care may therefore be less than is believed.
Another difficulty is estimating the cost of the parallel learning which takes place when patients are treated and investigated by specialized professionals in highly technical institutions, giving the patients the impression that this is what is needed in order to treat their minor trauma. Economic calculations are dependent on concrete organisational arrangements like working rules and staff salaries. In economic calculations the patients are often neglected, but their costs may be influenced in three ways: change in transportation cost, waiting time and days off work. In essence an economic analysis, using relevant economic costs concepts (e.g. opportunity cost) would involve the following equation:

Savings in hospitals - additional costs in general practice +/- costs for patients = net costs

In this equation one important component fails that ideally ought to be quantified in terms of money, namely the value patients attach to the possibility of having a choice (Bentzen et al., 1987).

2.2.2.2 Variation at the local level

The organisation of general practice and of A&E departments is depending on several factors. At the local level variation can be found in access, practice conditions, organisation of duty arrangements and the use of quality assurance.

Access

Roberts and Mays (1997) reviewed the literature on this aspect and found that the evidence suggests that improved access to primary care where access was previously poor can reduce emergency department utilisation. Singh (1988) found that no access to the GP is seen as one of the major determinants of attending an A&E department. The association between A&E attendance and distance has been shown in several studies, mostly set in rural areas (Bowling et al., 1987; McKee et al., 1990). At the countryside the general practitioner accounts for a relatively large part of the total amount of care out of hours, because of the distance to a hospital (Campbell, 1994; Nationale Raad voor de Volksgezondheid, 1990). In innercity areas this relation does not hold (Hull et al., 1997). Related to this is the availability of other services: a hospital in the practice area will reduce the provision of emergency care by GPs.

Practice conditions

The character of general practice requires an optimal level of accessibility and availability

of services. These principles have consequences for the choice of location and the organisation of the practice. In many systems, there are barriers to seeking care, whether routinely or in a perceived emergency. Some are common for many systems, for instance the time to lag to appointment, travel and waiting times (Hallam et al., 1996).
According to Roberts and Mays (1997) research suggests that concerns that certain aspects of primary care organisation (such as appointment systems, deputising services, single-handed practitioners or primary care emergency centres) may be unpopular with patients and may inadvertently have increased pressure on A&E departments seem largely unfounded.

Organisation of duty arrangements

The following forms of collaboration between practices out of hours can be distinguished (Hallam, 1993; Hallam, Cragg, 1994; Hallam et al., 1996)

- Joint rotas:

  Informal arrangements between individual practices, mainly between ten or fewer general practitioners

- Cooperative:

  A non-profit making organisation, entirely and equally owned by, and medically staffed by the GP principals of the area in which it operates. The main purpose of such a cooperative is to cover the 'out of hours' commitment of its members on a more formally arranged basis than a rota.

- Commercial deputising services:

  Deputising services make visits on behalf of the general practitioners that are affiliated to the service and pay for that service. They are only available in areas with a concentrated population.

- Centralised primary care emergency centres:

  A clear pattern for the development of centralised out of hours services does not exist. They can be run or being planned by deputising services, cooperatives, individual practices and sessionally employed general practitioners and can be sited in hospital accident and emergency departments, central clinics, consulting suites with deputising services and cooperative offices and general practitioners' surgeries. Patients are encouraged to travel to them for medical care rather than receive a home visit from the doctor.

To these forms there are several variations possible, depending on the health care system and the innovative spirit of the GPs.

Quality assurance

Systems for quality assurance affect the practice and the provision of out of hours care. By means of quality assurance, irregularities and lack of efficiency can be found.

Guidelines and performance criteria influence the provision of acute care out of hours. They influence the use both directly (by setting standards) and indirectly by influencing the quality of care (McKinley et al., 1997b; Cragg, Hallam, 1994; Hallam et al., 1996). Systematic measuring of quality of care makes health care providers more aware of the demand and of the provision in all its aspects. This will influence the use of that care in an indirect way. In the literature on out of hours care quality and quality assurance are not big issues. One way of measuring quality of care is by measuring patient satisfaction. McKinley et al. (1997b) report the development of a reliable and valid questionnaire which consists of a list of elements of patient satisfaction relevant to out of hours care from unpublished questionnaires and questionnaires used in studies of out of hours care in the United Kingdom. The elements are: access to out of hours care, interpersonal aspects, quality of care, outcome and overall satisfaction. The results of conducting this questionnaire in practice have not (yet) been published. Campbell (1994) examined dissatisfaction with the arrangements for seeing a doctor. Ninety-four percent of the variance in dissatisfaction between practices was explained by the 'perceived availability' of a doctor to respond to urgent or non-urgent consultation requests and by the proportion of the sample who estimated they normally waite in excess of 15 minutes when attending to be seen.

2.2.3 Important issues in acute health care out of hours

In the literature the following issues have repeatedly been reported in relation to acute health care out of hours. The themes show some overlap with the factors that have been mentioned in the previous section. They are described here separately because of their relative importance to the organisation of acute health care out of hours.

Rising demand for out of hours care

As regards demand factors, there is considerable evidence for a change in the attitudes and expectations of the public leading to an increase in the demands they make on care out of hours (Edwards, 1996). Reasons for the increased demand out of hours are complex interactions between social changes, changes in the health care system and their combined impact on both providers and patients. Consumerist views, raised expectations about the availability of care, extended opening hours in general make that people think they can visit a doctor whenever it suits them. The willingness to take time of work caused by job-insecurity may also influence the demand for care outside office hours. There are also fewer people to turn to for lay advice; family networks have been fragmented and more women are at work (Hallam et al., 1996).

Inappropriate demand

In situations in which the patient cannot really assess what the severity of his situation is, demand is not always issued at the right source of care. This might cause inappropriate demand. The problem has generally been formulated as one of inefficient use of resources, given the constraints on staff and resources and the growing number of patients presenting for treatment. A&E patients identified as 'inappropriate' have often been seen in the literature as having 'primary care problems' which could, or should, have been treated by a general practitioner. Traditionally such use of A&E departments has been portrayed as resulting from a failure on the part of either general practice in providing comprehensive and accessible service or the patient in understanding how to use the service appropriately (Green, Dale, 1992). Many studies have tried to define and measure 'inappropriateness' at A&E departments (e.g. Davido et al. 1991; Creutzberg et al., 1989). Since no standard criteria were used it is hard to compare and judge these figures which fall between 29% and 70% of all new attendances at A&E departments (Hallam, 1994; Bindman, 1995). Distance to the various facilities, age, the type of injury, the presence of health care centres or group practices, advice from family members or other important people and expectations with regard to the competence of care were found to be predictors of the patient' choice as to whether to go to a hospital or a general practitioner (Sixma, de Bakker, 1996; Cohen, 1987; Lowy et al., 1994; Murphy et al., 1996a). Bentzen et al (1987) describe as best predictors of patient's initial choice of source of care:

Use of A&E increased with:

- presence of A&E department in the municipality
- greater distance to the GP
- presence of risk factors like occupation and sports activities

Utilization rate was higher for younger age groups than for older and was higher for men than for women. There was a conditioning effect in the previous use of hospital out-patients facilities and the previous use of GPs, both of which incresed the use of the A&E department.

There are several reasons to consider inappropriate use of services a problem. First, these patients compete for A&E resources with patients whose need for acute hospital care is greater. Second, the type of consultation in A&E departments may be not appropriate to their problems. Furthermore, costs of treatment in A&E may be higher than in general practice. Inappropriate demand has also got to do with the way health services are supplied. Between the 'inappropriate' attenders of A&E departments, there may be many patients who are unaware of the availability and appropriate use of community primary care services (Ward et al., 1996).

The burden of out of hours care

The demanding work out of hours is seen as a cause for burnout and GPs complain about the fact that they do not want to be called out of bed for what is sometimes seen as trivial problems. General practitioners are also more and more concerned about their own safety, especially in big cities. For general practitioners it is more and more difficult to deliver personal, integral and continuing care (van Dierendonck et al., 1992). GPs provide less 24 hour cover themselves.

Lack of coherence of services

What is most evident from different professional perspectives is the extent of overlap between different services. Out of hours care is one of the most poorly integrated parts of the health service, with much overlap (Dale et al., 1996b). General practitioners, nurses, ambulance drivers and staff working at accident and emergency departments are all involved in meeting overlapping needs. Whilst this creates problems of coordination and raises questions about duplication and cost-effectiveness, it is probably important to recognise that, from the patients' perspective, choice of entry points has advantages. However, duplication also creates confusion and uncertainty for patients. One of the consequences of fragmentation in providing out of hours care is that, rather than encouraging coordination and collaboration, it provides incentives for providers to shift problems and costs to other providers. There is, however, no clearcut boundary between problems that belong to A&E departments and general practice (Dale, 1992). Despite these problems there are considerable opportunities for providing a more appropriate and more costeffective system of out of hours care. The different professions involved in providing care, increasingly recognise the need for closer coordination (Hallam et al., 1996). It has been suggested that when patients 'vote with their feet', one could argue that hospitals should make a virtue of a necessity and import general practitioners into casualty departments to deal with primary care problems (The Lancet, 1994). In several countries experiments have been conducted with employing general practitioners at A&E departments (Renier and Seys, 1995; Engelenburg, 1988; Roberts, Mays, 1997). In England, care provided to non-emergency A&E attenders taken care of by general practitioners who worked integrally within the A&E department and usual medical staff were compared in terms of process, outcome and costs. It was found in a randomized controlled trial that general practitioner staff in comparison to A&E staff performed fewer investigations, referred less, prescribed more often and disposed of more patients to the community. There were no differences found in outcome measures (Murphy et al., 1996a; Murphy et al., 1996b; Dale et al., 1995a; Dale et al., 1995b; Dale et al., 1996b; Cohen, 1987; Ward et al., 1996). In London (Ward et al., 1996) it was found that the presence of a GP in the A&E department did not attract even more primary care-problems. The GP was used to educate the 'inappropriate' users of A&E to prevent future unnecessary use. Other

experiments have appointed an Emergency Services Practice Manager for improved emergency care by closer integration of hospital and community management (Hadfield et al., 1994). Sixma and de Bakker (1996) studied two models in out of hours care, namely a 'competition' and a 'threshold' model. These experiments were aimed at limiting the number of self referrals to accident and emergency departments. In the 'threshold' model, patients without a referral by a general practitioner were sent back to general practice. In the 'competition' model, primary care emergency centres provided an alternative to a newly opened A&E department. The 'threshold' model is barely acceptable to patients. A better solution was the 'competition' model. Although this strategy proved to be somewhat less effective in limiting the number of self referred patients, it was highly valued by the patients.

New models

Commerical deputising services have provoked considerable controversy in the UK. Although they provide relieve for general practitioners and although general practitioners are in general satisfied with the standard of particular services, questions have been raised about deputies' qualifications, the quality of care provided and the impact of such services on demand. Patients are less satisfied by visits by these deputising services (Hallam, 1994). Salisbury (1997) compared an out of hours cooperative of general practitioners with a deputising service. The cooperative in that study dealt with patient contacts very differently from the way the deputising service dealt with the contacts. In the cooperatives fewer patients were visited and fewer received prescriptions. Also Cragg et al. (1997) studied the process of out of hours care provided by patients' own general practitioners and commercial deputising services. By contrast with practice doctors, deputising doctors providing out of hours care less readily gave telephone advice, took longer to visit at home and had patterns of prescribing that were less discriminating. In the same study the outcome of care was also evaluated. It seemed that patients were more satisfied with the out of hours care provided by practice doctors than that provided by deputising doctors. Organisation of doctors into large groups may produce lower levels of patient satisfaction, especially when associated with increased delays in the time taken to visit. There seem to be no appreciable differences in health outcome between the two types of service (McKinley et al., 1997a). Of the primary care led emergency services it has been shown that most patients who request medical care out of hours are not able or prepared to attend a centralised primary care centre. Factors affecting attendance are lack of transport and believing they are too ill (Cragg et al., 1994). These ways of providing emergency care out of hours may offer relieve to the general practitioner and, at the same time, provide appropriate care to patients. The question of how emergency care can best be provided, taking into account the contribution of all potential providers is depending on the situation and cannot be answered yet (King's Fund, 1996; Hallam,

1994). Recently a report by the King's Fund (Roberts, Mays, 1997) reviewed the evidence on subsitution of primary care for secondary care. Their main findings will be described below. Substitution can be reached in several ways, at two sides of the spectrum. On the primary care side, substitution can be established either by making changes in the provision of primary care services by means of reorgansing primary care or by improving access. On the secondary care side, reorganisation may included the provision of primary care in the A&E department, the establishment of minor injuries units and telephone triage. One important finding was that concerns that appointments systems, deputising services, single-handed practitioners or out of hours primary care centres may be unpopular with patients and inadvertently increase pressure on A&E departments seem largely unfounded. Although the evidence relates mainly to the United Kingdom, it was suggested that the decision to attend hospital for first contact urgent care is made irrespective of the way in which local primary care services are organised. The one factor which does seem important is relative distance to health care facilities.
Roberts and Mays (1997) see in telephone triage and in minor injuries units innovations with potentially far-reaching implications. There has not been any evaluative research concerning these units or the telephone triage, but case studies suggest that cost-effective substitution of care is a possibility. Another important finding of their study is that the possibility of cost-containment through substitution may not be great. As we have also argued above, the average cost of hospital A&E care is much higher than care provided in primary care, but the marginal costs of treating primary care patients in the emergency department may be relatively low. Significant cost savings may only be achieved when complete wards or hospital-based departments close.

2.3 Requirements and criteria

In order to compare the different systems and models of provision and financing of acute health care out of hours, certain criteria should be set along which to compare.
Preferably we would like to measure and compare the efficiency and effectivity.
This could then lead to the best model in terms of most prevented deaths and disabilities, most satisfied patients and less costs to the population as a whole. These concepts would require the existence of internationally comparable figures. Since these figures are not available and can only be brought to light by means of an international comparative study like EMOCA (appendix 1), we have to compare the organisation and provision of acute health care out of hours in different countries on their compliance with certain requirements. Acute health care out of hours should comply with certain important requirements. These requirements are of importance to health care as a whole and to acute health care out of hours in particular:

- Accessability and availability

  Acute health care out of hours should be provided on a for the patient recognisable and accessible place directly available 7 x 24 hours a week.

- Expertise

  The professional providing acute health care out of hours should be competent.

- Facilities

  The establishment and the equipement of the provider of acute health care out of hours should be fit for providing acute medical care.

2.4 Structure of the description per country

According to what is mentioned above, certain aspects of the organisation and financing influence the use of acute health care out of hours. A complete description of acute health care out of hours in separate countries needs to contain information on these aspects. Firstly, in the first section of every country description, an overview of the organisation and financing of the health care system of the country will be given, to gain inside into the context of acute health care out of hours. In the second section of every chapter (4 to 8), the organisation and financing of acute health care out of hours will be described in detail. In section 3 of each chapter, we will look at the patients' perspective. Here, opinions and demand-related factors which are specific for a certain country will be laid out. Finally, problems and developments will be described in the section 4.

Chapter 3 Methods

In this chapter we will first explain methodological issues in international comparative research. From this, recommendations on the design of this kind of study will follow. In the remainder of this chapter the design we have chosen will be laid out.

3.1 Methodological issues in international comparative research

Studies in the field of international comparisons face various methodological problems. Though not attempting to make an exhausting enumeration, some of these problems will be adressed here. The first problem to be addressed is the lack of comparable data. Underlying this problem is the lack of internationally accepted definitions of components of the health care system. Although international comparable health data sets exist (e.g. OECD health data set), the information that can be gathered from those sources is often not satisfactory to studies like this with a very specified topic. It should be noticed that the lack of comparable data is not typical for quantitative international health systems research. The same problem occurs when comparing qualitative data. Most descriptions of (parts) of national health care systems are loose and not exhaustive and some of them do not even present a common conceptual framework. Linked to this is the fact that criteria have to be posed when comparing the performance of health care systems. Finding suitable criteria and the necessary data can pose serious problems to any study, but are especially apparant in international comparisons due to the above mentioned points. Kroneman and van der Zee (1997) point to special problems when studying health care systems in motion. These problems can cause 'fuzziness'. The causes of this 'fuzziness' can be divided into three categories:

- mistakes and misunderstandings
- regionalization of health care policy
- deliberate vagueness in the process of policymaking.

Kroneman and van der Zee go on explaining methods to accomodate these problems. The following methods were recommended:

- the critical use of secondary sources; they contribute global insights
- the use of primary sources; this requires knowledge of the language of the country
- consultation of several experts from different sectors.

When composing an overview they advise the following design. First, a comprehensive literature study using primary and secondary sources which can form a decent basis should be carried out. This overview, together with questions concerning indistinctness can be put to experts within the countries concerned. It is also advised not to consult one single expert, but representatives from different sectors. A combination of different

resources provides the most reliable information.

A second problem which is important to keep in mind, although outside the reach and aims of this study, is that of policy transferability (van Kemenade, 1993). The experiences with a certain kind of arrangement or institutional structure cannot be easily generated to another system. Linked to this problem is etnocentrism. It goes without saying that the fallacy of etnocentrism must be avoided.
In the following sections it is shown how we dealt with these methodological problems. and how we tried to follow the recommendations by Kroneman and van der Zee.

3.2 Design of the study

The research questions as laid out in Chapter 1 are mainly descriptive. To answer these questions we have made use of quanitative and qualitative data and methods. For the general description of the separate countries, mainly qualitative methods were used. Some additional quantitative comparisons could be made by means of the data from the 'Task Profile Study' from 1993[1] and the OECD health data file (1996). Quantitative research can make precise expressions of the extent to which interventions are efficient, effective or appropriate and allows the use of statistical methods to assess the statistical significance of the finding. This study did not allow statistical analysis. The data available from the Task Profile Study are described per country and put schematically together in Chapter 9. Qualitative methods are more appropriate when investigators are 'opening up' a new field of study or are primarily concerned to identify and conceptualise issues descriptively like is the case in this study (Fitzpatrick, Boulton, 1994). On the basis of his or her theoretical understanding the investigator determines what factors might affect variability in the observations and then endeavours to draw the sample in a way which maximizes the variability (Fitzpatrick, Boulton, 1994). These factors were determined in the previous chapter and provided a framework for the descriptions of the separate countries.
According to Baarda and de Goede (1990) hypotheses and theory are not the starting point in descriptive research. It is about the description and the catalogisation of characteristics of the research units by means of a standard framework. Through descriptive research one wants an answer to 'what is going on'-questions. This study has also an explorative component. Through explorative research one wants to get an answer to

[1] The European Study of Task Profiles is a European comparative study of taskprofiles of General Practitioners. Data were collected in 32 countries by means of a uniform questionnaire. One of the questions concerned the arrangements for acute health care out of hours. The study was conducted by the NIVEL in 1993.

questions like 'why' and 'how'. Explorative research ends in hypotheses. Our research consists of a combination of these two. Our aim is to describe the different forms of organisation and financing of acute health care out of hours in the selected countries and to understand why certain problems and/or developments happen in certain countries. The study started with desk research on acute health care out of hours. The aim of this desk research was to get an insight into what has been written on the subject and to be able to describe systematically the different systems of organisation and provision of acute health care out of hours in the selected countries. With the available literature, draft descriptions were made per country. Additionally, semi-structured interviews with experts in the countries were conducted. The desk research and the interviews formed the base of the descriptions of the separate countries in Chapter 4 to 8. After finishing the descriptions, they were returned to the experts who corrected them where necessary.

3.2.1 Selection of the countries

The countries were selected on the basis of the literature study and on the basis of practical considerations and constraints. The selected countries show variability on a number of aspects that were set out in Chapter 2. The selected countries are: Denmark, Sweden, the United Kingdom, Belgium and the Netherlands.

3.2.2 Literature study

Although there were quite a lot of articles on the organisation of emergency medical care and on separate studies, not all of them were of direct interest to our research questions. Our first source of information were the articles and references that were available from the preparation meeting of the EMOCA-project (13-10-1996). For this meeting a literature search was conducted and all participants were asked to write a short summary of the system of emergency medical care in their country. At the start of this study systematic searches were made of the following electronic databases: International Biomedical Database Medline (1991-1996), the NIVEL catalogue and the catalogue of Maastricht University. Searches were not limited to articles published in the English language. Several search strategies were developed to identify a range of relevant articles. Search terms included: 'Emergency-medical-services', 'primary health care', 'hospital', 'family practice', 'triage', 'referral', 'health services needs and demands', 'co-payments'. Several combinations were made to limit these searchstrings. The bibliographies of identified studies provided many relevant references. Other recent publications were identified by scanning through the contents pages of recent volumes of relevant journals (e.g. British Medical Journal, Journal of Health Services Research, Family Practice, Huisarts en Wetenschap, British Journal of General Practice). Furthermore leading subject area

experts were contacted for advice on ongoing research. The identified experts were contacted before the interview and asked for additional literature. Kroneman and van der Zee (1997) recommended the use of written information in the language of the country that is under research. In this case, the author was able to meet this recommendation. The literature is filed in a systematic way in order to provide a source of information for further research on the subject.

3.2.3 Interviews

After the descriptions of the separate countries had been put together, additional information was sought from external experts by means of personal interviews. Interviews are a particularly flexible method of gathering data, allowing the investigator to respond to the individual way in which respondents interpret and answer questions. The interviews were semistructured, where the interviewer had a fixed set of topics to discuss. All interviews were conducted by the author.

Selection of respondents

According to the aims of this study (describing the organisation and financing of acute care out of hours in the selected countries) experts had to be found that could either describe the overall organisation or had an expertise in separate aspects. The respondents were primarily selected on the base of their knowledge and they were identified by means of contacts of the NIVEL (e.g. from earlier research or from the EMOCA-study), references in literature, and personal contacts of the author.

In total 12 persons (Appendix 2) were interviewed in five countries:

Sweden:	3
Denmark:	2
Belgium:	1
United Kingdom:	3
The Netherlands:	3

Potential respondents received a letter asking them to participate. They were then approached by telephone for setting an appointment. Before the actual interview took place, a letter with the aspects that would be the topic of the discussion was sent (Appendix 3).

Interview schedule

The interviews were structured by means of an 'interview schedule' (Appendix 4). An interview schedule is a carefully constructed manual for the interviews and it contains instructions for the introduction of the discussion, the contents of the discussion, the end of the discussion and for the following up of the research (Emans, 1990). Before the final

interview schedule was constructed, different subjects of interest were identified by means of the framework (Chapter 2) and talks with experts. The separate themes were put in a logical order to give the respondent the largest possibility to lay out his knowledge and views. The following themes were identified:

- current problems and developments in acute health care out of hours
- organisation
- financing
- quality of care issues
- patients' perspective

The interview questions were not written down literally because of reasons of incomparability of the respondents. In some countries more information was already available by means of the literature study than in others. This made some questions redundant. The interviews took place in the workplace of the respondent.

One reference date was chosen (1-1-1997) to allow comparison of the information from the five countries. When quantitative information was required, concrete and the most recent figures based on official statistics or research results were preferred.

During the interviews notes were taken and typed out literally afterwards.

3.3 Reliability and validity

Reliability means reproductability. It can be reproductability within the study or reproductability of the complete study. In this study we tried to obtain internal reproductability by means of an interview schedule and by returning the description of the country that followed from the interview to the respondent for authorization and additions. External reproducability is sought after by giving the reader of this report insight into the coming about of the results. Furthermore, the presentation of the results is separated from the interpretation. We tried to ensure validity by obtaining evidence from as diverse and independent a range of sources as possible (according to the recommendations of Kroneman and van der Zee (1997)), and the degree of convergence between the different sources (literature and interviews) is carefully considered. A particular form of checking the plausibility of investigators' explanations is that of 'respondent validation' in which the analysis that has emerged of a setting is presented to the participants for their reactions. By means of this technique analysis can be refined and improved by respondents' feedback (Fitzpatrick, Boulton, 1994).

Part II

Acute health care out of hours in Denmark, Sweden, the United Kingdom, Belgium and the Netherlands

Chapter 4 Denmark

Table 4.1 Characteristics of health care in Denmark

Inhabitants (millions)*	5.2	Percentage of BNP spent on health care*	6.7%
Percentage of publicly employed GPs**	0%	Remuneration of GPs	capitation
Inhabitants per GP**	1609	Percentage female GPs***	16%
Listsystem**	yes	GP is gatekeeper**	yes

* OECD health data (1995), figures are valid for 1993; ** Boerma et al., 1993; *** European Study of Task Profiles of General Practitioners

4.1 General information on health care

Organisation

Denmark has got a relatively cheap health care system with a strong gatekeeping role for general practice. In 1993, 6.7% of GDP at market prices is spent on health care. General practice is recognised as a medical specialty. 96% of the population is registered on a GPs list (Olesen, 1996; Schneider et al., 1995). General practitioners are independent practitioners. Overall responsibility for health care lies with the Ministry of Health. Advise is given by the National board of Health. The planning and management is delegated to the county level and to municipalities. The counties are responsible for the hospitals and for general practice. The municipalities deal with the remaining primary care facilities, like community nursing (Boerma et al., 1993).

Financing

GPs have contracts with the county to provide 24 hour care for the patients registered on their list (Christensen, Olesen, 1995). During office hours, general practitioners are remunerated through a combination of mainly capitation fee based on the number of patients on the GP's list and some fee for service. This money is collected exclusively through taxation (Olesen, 1996) and paid to the GP through the tax-financed compulsory insurance system 'sygesikring' (Schneider et al., 1995). Two groups of health insurance exist: group 1 is listed with a GP who acts as a gatekeeper and gets all health care for free. People registered in group 2 do not have free access (in terms of money) to health care, but they pay a fee for every consultation. In return they can consult any specialist

(without a referral) or GP they want. Only five percent of the population has got group 2 health insurance. Denmark's national health service is based on equity and there are no co-payments for patients with group 1 health insurance.

4.2 Acute health care out of hours

4.2.1 Organisation of acute health care out of hours

Out of hours is between 4pm and 8am, plus weekends and public holidays (Dolley, 1994; Olesen, 1996). In Denmark, the provision of health care out of hours has undergone a major reform in 1992. Though the providers are still the same, the way the duty periods outside office hours are arranged has completely changed. First we will explain the system for acute health care out of hours before 1992 and secondly, we will describe the system of acute health care out of hours at the moment.

Before the reforms

Before the reforms, there was no coherent system of organising out of hours services throughout the country. The arrangements depended on the local GPs and on the geographical situation. GPs living in less populated areas had to be on duty much more often than their collegues in town who had the possibility to opt out of big rota systems. There was also a difference in salary out of hours, since some GPs were kept busier than others because of their particular scheme. Consequently, the workload and the salary of GPs differed across the country, especially between rural and urban GPs. In large towns, large rotas and commercial deputising services existed from which it was possible to opt out. 90-95% of the patients received home visits once they had contacted the service out of hours. In rural areas only small rotas existed. Duty-periods were long and home visits were kept to a minimum because of the workload and the geographical distance.

Among the reasons for reform were the tensions between rural and urban GPs because of the before mentioned differences in workload and income. Other reasons were the growing demand especially from young people (Dolley, 1994), rising costs for night services through the fee-for-service system and lobbying young doctors (for more income and less workload). There was a tendency that the overal GP income from daytime work was decreasing. The voluntary creation of rotas had failed to solve all the problems and a new system had to be thought of (Olesen, 1996).

Acute health care out of hours after 1992: reforms

In 1992 the reform took place. Generally spoken, each county (50,000-600,000 inhabitants) got its own coordination centre and could decide on how to tailor out of hours care

to their own needs (Olesen, Jolleys, 1994). Figure 1 shows the situation in the county of Århus, a county of 600,000 inhabitants. The county has one coordinationcentre which is located in Århus. In the same place, there is one of the emergency clinics located. The other emergency clinics are in different places around the county. The appointments to see the GP in one of those clinics is made by the coordinationcentre who receives all calls from patients in the county of Århus.

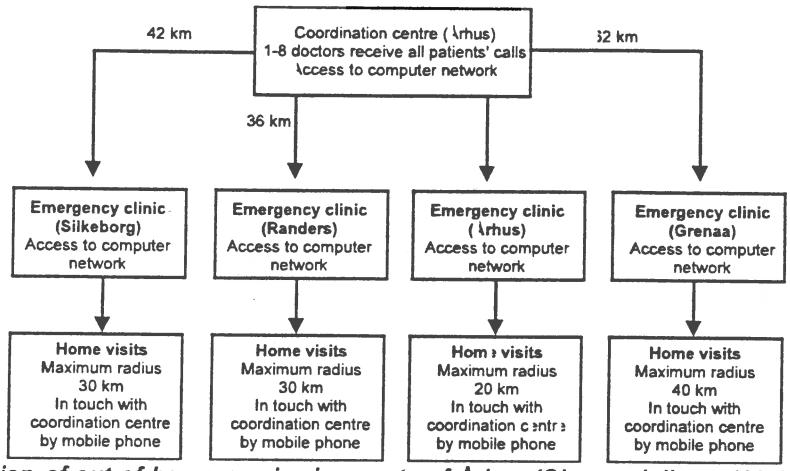

Figure 1 Organisation of out of hours service in county of Århus (Olesen, Jolleys, 1994)

Emergency care centres are centrally based and staffed by GPs. The number of GPs present depends on the planned call rate. Sometimes the emergency care centres are placed besides a hospital A&E department (Dolley, 1994). Contacts to the centre are on the initiative of the patients and are solely by phone. The GPs have several options once they are contacted by a patient. They can send a GP for a home visit, do a telephone consultation, ask the patient to come to the centre for a surgery consultation, refer them to the hospital or send them immediately to the A&E department. They can call Falck (a private ambulance company) to do the transport. The centre offers similar facilities to the average GP's surgery. Only fully licensed GPs who have had five years of postgraduate education are allowed to work in the out of hours service to do the triage by phone. Duty periods are quite short (8-10 hours). Since there are GPs working for quite a large area, the dutyperiods are kept busy, efficient and profitable for the GPs. In the county of Århus there are at night 6-7 doctors working. Although not constantly on call, GPs retain 24 hour medical responsibility for their patients. The planning and the administrative responsibility is shared between the GPs and the counties. The reform has resulted in an increased use of telephone advise services, a fall in home visits and a slight increase in clinic consultations but no overall increase to the total number of calls to the system (Olesen, Jolleys, 1994; Olesen, 1996).

Providers

Providers of acute care out of hours are the same as during office hours. The GPs from a county work together on the out of hours services. Since it is organised very efficiently, a GP is only on duty 1 in 15 evenings and 1 in 35 nights. It is possible for GPs to opt out of the system and to let other GPs take over. Only fully licensed GPs work in the out of hours system. GPs are independent but have a contract with the county to provide care and to receive fees (Christensen, Olesen, 1995). Accident and Emergency departments of hospitals are staffed with junior doctors, specialised nurses and with specialists on call.

4.2.2 Financing of acute health care out of hours

Physicians

Out of hours, remuneration for the GPs working in the centre is different from the remuneration for the GPs doing home visits and clinic consultations. GPs working in the telecentre are remunerated through a differential fee for service system. This means that GPs working in the coordination centre earn a different fee, according to the type of consultation they offer to the patient on the phone. If a home visit is offered or the patient is invited to the centre, they earn less than if they do a telephone consulation. This means there is a big economic incentive to keep down the number of home visits and surgery consultations. The levels of payment increase through the evening and night (Olesen, 1996).
The GP doing the home visits or the clinic consultations is remunerated on a fee for service base. Home visits are remunerated higher the further the GP has to travel to see a patient.

Patients

Patients do not have to pay a fee for consulting a doctor out of hours. Only patients with group 2 health insurance have co-payments.

Costs

The costs of the reformed out of hours service have been higher than expected because patient demand fell less than predicted. Starting costs were high since equipment for the emergency care centres had to be purchased. However, in the long run, this system is quite cost-effective with just a few general practitioners on duty for a large population. In principle, GPs share the costs for the out of hours service among themselves. In most places however, the county pays part of the expenses (personal communication, Christensen, 1997; Olesen, Jolleys, 1994).

4.2.3 Patients' perspective

Patients have the right to choose whether they call the coordination centre or whether they go directly to the A&E department or phone an ambulance. For the A&E department they do not need any kind of appointment or referral. For the patients there is freedom of choice as to which provider they prefer but if they call the coordination centre, they have to accept the type of consultation that is offered to them. The GP has the right to decide. After the reform there has been a lot of protest from the public. There has been an information campain to inform the general public about the changes and to inform them about the central telephone-number per county. Initially, the number of calls fell, but it has risen again. The people that call the centre have somewhat different health problems than the people that called the GP before the reform, more less serious problems. Opening up an easy to contact telephoneline clearly creates some demand.
There is no consistent measure for patient satisfaction throughout the country. There are no figures available across the whole country, only from parts. On the island of Fyn, patient satisfaction fell, but they are increasing again as people get more and more used to and informed about the new system (personal communication Christensen, 1997). This has also got to do with preceding expectations. If patients expected a home visit to be made and only got a telephone consultation they were bound to be more dissatisfied.

4.3 Current problems and developments

There are ongoing debates about the integration of the A&E department and the GPs out of hours service (Dolley, 1994). The two systems work independently alongside each other. The fact that patients can go to the A&E department without consulting the GP first, is seen as inefficient although there are no figures available. Patients who really want to see a doctor and do not want to be put off by the telephone service, go to the A&E department directly. It is also possible that patients call the GP line and if the answer is not suitable for them, they choose to visit the A&E department anyhow. This means there is a lack of coherence in the system which leads to inappropriate demand at the A&E department. Another debate is the joint working between ambulances and GPs in the most effective triage system (Olesen, 1996).

Chapter 5 Sweden

Table 5.1 Characteristics of health care in Sweden

Inhabitants (millions)*	8.7	Percentage of BNP spent on health care*	7.5%
Percentage of publicly employed GPs**	99%	Remuneration of GPs	salary
Inhabitants per GP****	2115	Percentage female GPs***	35%
Listsystem**	no	GP is gatekeeper**	no

* OECD health data (1995), figures are valid for 1993; ** Boerma et al., 1993; *** European Study of Task Profiles of General Practitioners **** (1995), Einevick-Bäckstrand, Johanssen, 1997

5.1 General information on health care

Organisation

The overall objectives in the Swedish health care system are set by the central government. The government ensures that the health care system develops efficiently according to its overall objectives, based on the goals and the constraints of social welfare policy and macro-economic factors. Legislation, financial control measures and supervision are the means the government uses to steer health care. The National Board of Health and Welfare (*'Social styrelsen'*) and the federation of county councils (*'Landstingsforbundet'*) are the negotiating partners of the Ministry of Health (Boerma et al., 1993).

The 'Health and Medical Services Act' (*'Hälso- och sjukvårdslagen'*) ensures that health care shall be available to all members of society. The Act requires county councils to plan the development and organisation of the health care system with reference to the needs of the county population. The county councils carry responsibility for in-patient and ambulatory services. Responsibility for social services, child care, schools and care of the elderly, disabled, social services and the rehabilitation of psychiatric patients rests with the municipalities. Each county council is governed by a local council which is elected every fourth year. Counties imposes direct local income tax on their residents which is the main source of revenue for the counties (Håkansson, Nordling, 1995). Swedish health care has been predominantly hospital-oriented during the last 40 years. Efforts have been made to improve primary care during the last two decades, and relations between the hospital sector and primary care have changed. There is still, however, a high proportion of out-

patient visits to physicians at hospitals, especially to emergency departments in the large cities. Primary health care is thus not functioning as 'gatekeeper' (OECD, 1994; Berleen et al., 1994). On the first of January of 1994 a new law for GPs came into force, this law allowed people to choose their GP and to be put on a list. The next government decided to abolish the law again in the course of 1995, as the system had grown too bureaucratic and costly. Some county councils have kept the list-system (Einevik-Bäckstrand, Johansson, 1997). Most GPs work in health centres. They often have 4-5 GPs, nurses, physiotherapists and sometimes social workers and occupational therapists employed and serve about 8000-10000 inhabitants (Christensen, Olesen, 1995).

Financing

Health care is mainly financed through taxation paid directly to the county councils. Apart from this, county councils receive some of their funding from the state and a national social insurance. About two thirds of their revenues comes from local income taxation (Anell, 1996). There is some horizontal inequity which mainly results from the county council taxes since those tax rates vary for each county council. The implication is that, to some extent, resources and access to care vary across the country (Gerdtham, Sundberg, 1996). However, within each county the access to care is the same for everybody independently of income.

GPs are employed by the county council and are mainly remunerated through a salary. Salaries differ slightly between the counties depending on the geographical situation and the number of physicians wanting to work in a certain area (like in the North) (personal communication, Nerbrand, 1997).

For patients, the past few years co-payments have risen and are now quite extensive. The co-payments are different for primary care and the hospital. Co-payments are also different between counties. In Stockholm a patient pays 120 SEK for visiting primary care, also out of hours and 300 SEK for visiting the A&E department of a hospital. Home visits cost an additional 80 SEK. Telephone consultation are for free (except if a prescription is written out). Patients pay up to a ceiling of 900 SEK per year, after that they get a freecard[2]. From 1997, pharmaceuticals are not included in the freecard. The maximum for pharmaceuticals is 1300 SEK per year.

[2] The co-payments differ per county. These are the prices for the county of Stockholm. For the full list of prices from the county of Stockholm see appendix 5. The ceiling of 900 SEK is the same across the whole country.

5.2 Acute health care out of hours

5.2.1 Organisation

In Sweden 'out of hours' is considered to start at 5pm and lasts until 8am.
Saturday morning and Sunday morning, health centres are opened for a few hours. In many areas, district nurses are on call.
The system of providing health care out of hours is not similar across the country. Even within counties it can be different. In some counties, the primary health care centres close at 23.30/24.00 and then patients have to go to the hospital in case of emergencies. In other cities, GPs triage patients in the A&E department. There is a difference between the organisation of out of hours care in rural and urban areas. In the rural areas primary health care out of hours is usually taken care of on the basis of rotas. In urban areas, it is most common that out of hours health centres cooperate and serve about 80,000-100,000 people with about 1-2 GPs on duty. These GPs will only perform telephone- or surgery consultations. There is a doctor on call at home to make home visits, but these are rarely regular home visits. Home visits are often initiated by the police and involve psychiatric patients and deaths at home. The rationale behind the low number of home visits is the believe that the patient can be treated better in the surgery and that doctor's time is saved since Sweden is sparsely populated in some areas and distances from the centre to the patient can be long. In the centre, calls are being received by a district-nurse or by the doctor (Christensen, Olesen, 1995). When a patient contacts the centre, an appointment is made and the patient travels to the centre. The nurse can also decide to phone an ambulance. In the Task Profile Study it was shown that 85.1% of all GPs were part of a rota which included themselves. In addition to this primary care system, patients have open access to the A&E department. If a patient is in doubt about where to go or what to do, a special phone number (different from that of the health centre) can be called in order to get advice from a senior nurse. This is only available out of hours. This number is the same within a county but differs between counties. Patients appreciate this number very much and it diminishes the unappropriate demand (personal communication, Nerbrand, 1997).

Providers
Out of hours, the providers are the same as during office hours. The GPs who work at the health centre, are on duty. In rural areas, GPs make use of rotas. In A&E departments out of hours, some physicians are on duty and others are on call.

5.2.2 Financing of acute health care out of hours

Physicians

GPs are salaried by the county council. Out of hours this is supplemented with benefits. (Boerma et al., 1993). Out of hours the remunaration is quite complicated. Physicians get compensation and money compensation. Basis of the system is the same both in primary health care and the hospital (personal communication, Fryksmark, 1997)
The time-compensation reduces the availability of the number of GPs during the day.

Patients

Demand may be influenced by the different co-payments for primary care and A&E departments. In some counties the extensive co-payments may refrain some patients from contacting a doctor out of hours since this is more expensive than during the day (personal communication, Fryksmark, 1997). No figures are available on this issue.
Travel costs (calculated according to the cheapest means of transport suitable for the patient) to the health centre can be reimbursed to the patient (OECD, 1994). There are no co-payments for being taken to the hospital by an ambulance.

Costs

Although no figures were retrieved during the study, the system of acute health care out of hours is seen as quite inexpensive and efficient (personal communication, Nerbrand, 1997). This judgement is based on the fact that doctors are salaried and do not have an incentive to provide more care out of hours. It is suggested that inappropriate use of health care out of hours care is reduced by the system of co-payments.

5.2.3 Patients' perspective

Patients' views on the out of hours service are not studied systematically, but are regarded quite positive. There are normally no waiting times once they get to the centre. For some groups in society, the co-payments are considered quite high and it may keep them from consulting a doctor when they need it, but this is not systematically researched. These groups include elderly, low income, families with small children (personal communication, Nerbrand, 1997).

5.3 Current problems and developments

Acute health care out of hours is not seen as a major issue in Sweden at the moment. There have been reforms to try and change certain system characteristics of Swedish

primary care (e.g. list-system) but these have failed more or less. A problem for acute health care in Sweden is the inappropriate demand at the A&E department. A study from 1994 (Kumlien, 1994) suggests that patients should be encouraged to visit a GP first. It is estimated in this study that 30% of all patients could have been treated by a GP.

In recent years, big cuts on health care financing have been implemented which cause more pressure on physicians and hospitals to work efficiently. Other problems that have been identified are:

- Lack of 'gate keeping' by GPs, which results in a relatively high proportion of self referrals to hospital outpatient and emergency departments
- Difficulties in recruiting GPs in some areas (Berleen et al., 1994)

A development is that there is a tendency towards greater cooperation between health centres and hospitals. Another development is that many smaller hospitals close their A&E. The patients are taken care of by other hospitals. The reasons for this are mainly economic (personal communication, Einevik-Bäckstrand, 1997).

Chapter 6 United Kingdom

Table 6.1 Characteristics of the United Kingdom

Inhabitants (millions)*	57.8	Percentage of BNP spent on health care*	7.1%
Percentage of publicly employed GPs**	1%	Remuneration of GPs	capitation
Inhabitants per GP**	1892	Percentage female GPs***	22%
Listsystem**	yes	GP is gatekeeper**	yes

* OECD health data (1995) figures are valid for 1993; ** Boerma et al., 1993; *** European Study of Task Profiles of General Practitioners

6.1 General information on health care

Organisation

From 1948, the United Kingdom has had a National Health Service (NHS) funded primarily through taxation. Prior to 1990, there was no form of competition within the NHS. Whilst it was widely believed to be underfunded generally, the Conservative governement of the day believed there was waste and inefficiency in the system which could be reduced by articficially creating competition between providers. In 1989, a Government White Paper 'Working for Patients' was published, proposing an internal market as a basis for NHS reform. Changes were introduced in 1991. District Health Authorities, who had previously managed secondary and community care services, now acted as purchasers of care on behalf of their resident population. They negotiated contracts with hospitals and community care providers, who established themselves as NHS Trusts, with independent management and greater autonomy. The aim was to promote accountability and cost-efficiency. At the same time, general practices with over 11,000 registered patients could apply to become 'fundholders', holding a budget devolved from the Health Authority to purchase services for their own patients. Following subsequent rule changes, over 50% of all GPs are now involved in some sort of fundholding. In the UK, the GP holds a central position in the health care system. Almost every inhabitant is registered with a general practitioner. The GP is also the gatekeeper to secondary care. Patients do not have access to secondary care without seeing their GP first.

GPs are contractors to the Health authorities (mergers of District Health Authorities and Family Health Services Authorities). They contract to provide 24 hour care for their

patients (Hallam, 1994).

Financing

Health care is mainly tax-funded through general taxes, complemented by national insurcance contributions made by employers and employees, and by a limited co-payments system. There are only small co-payments for patients (e.g. for drugs, visual aids and dental care) (Boerma et al., 1993). A small part of the population has additional private insurance. Often private insurance is offered as a benefit to certain employees.
GPs are paid on a mixture of capitation payments, basic allowances and item of service payments (including a certain number of incentive payments for special services, like immunisation etc.). The contract GPs have with the health authority is negotiated and priced centrally by the government. The government is advised by the review body on doctors' and dentists' remuneration.

6.2 Acute health care out of hours

6.2.1 Organisation

British general practitioners have a responsibility to provide 24 hour care to all their patients. They achieve this either through a rota within their practice, a joint rota with a neighbouring practice, subscribing to a commercial deputising service or working in a non-profit making cooperative of GPs. There is little free choice among these options for most GPs. In rural areas, commercial deputising services are usually not available. Along side the GP system, hospital A&E departments provide open access care. There is no general definition of 'out of hours'. Often practices close early on one afternoon a week. Patients have to wait until the following morning before they can see their GP. The only definition that can be made for out of hours is: the period after the surgery has closed and before the surgery reopens again (personal communication, Hallam, 1997). Many GPs run emergency surgeries on Saturday morning. Most cooperatives provide cover from 19.00-8.00 and in the weekend from 12.00 noon on Saturday until 8.00 Monday morning. GPs can claim night fees to the Health Authority between 22.00 and 8.00.
In the United Kingdom, the organisation of acute health care out of hours varies across the country. Until recently the system of care was quite similar throughout the country with most out-of-hours work provided by GPs in practice rotas and deputising services only being available in urban areas. In the Task Profile Study it was found that 68.3% of all GPs were part of a rota which included themselves. 12.3% of all GPs were always on duty and 7% of all GPs left their duties to a deputising service. The number of night visits range from 11.4 to 58.8 per 1000 patients per year (Hallam, Cragg, 1994).

Providers

The providers of out of hours services are partly the same providers as during office hours, but organised differently. For GPs in some areas it is possible to use a mix of possibilities, e.g. using cooperatives at daytime during the weekends, and using commercial deputising services at nights. Practices in urban areas increasingly employ commercial deputising services. Commercial deputising services are only available in areas with a concentrated high population. This, and their general unpopularity with some GPs has led to a new development - the GP cooperative (Hallam et al., 1996).

Rotas

The growth in practice size which began in the 1950s and has continued allowed GPs to share on call responsibilities, thus providing a way of coping with rising demand for out of hours care. In 1992, nearly 65 % of GPs were part of a practice rota. It is now claimed that over a third are co-operative members. GPs are still relatively often on call.
(Hallam et al., 1996)

Cooperatives

The term 'cooperative' is used to describe any formal rota involving more than 10 GPs. In practice though, the term is more used to describe larger formal organisations with many subscribing practices. Their size can vary from 15 to over 200 GPs cooperating. The area covered by cooperatives can vary from a small town to a large, less populated area. The time they offer coverage may differ too, depending on the arrangements made. Some cooperatives only provide cover during the evenings and weekends. The subscribed GPs use commercial deputising services then during the nights. The way they operate can vary from small low-profile operations to sophisticated centres. Some only use practice answering machines and manual record systems while others have sophisticated communication, transportation and computerized record systems. The nature of commitments of GPs to the cooperative can vary too. Older members might contribute more financially in exchange for less shifts.

In the early nineties cooperatives started. At that time there were still financial barriers to establishing cooperatives and lack a of development funding. That finance structure has now been removed and the growth of cooperatives seems to mushroom, especially in areas which lack access to commercial deputising services (Hallam et al., 1996). In 1990, the contract between the government and the GPs was changed. The GPs felt quite dissatisfied with this contract. The focus of dissatisfaction became out of hours cover. It came to a dispute between the government and the doctors, resulting in a change of payments/fees, rewritten rules (the GP could decide now whether it was necessary to make a homevisit) and the creation of a development fund to promote alternative ways of

providing primary care. A lot of cooperatives were set up in a short time to apply for this money. This fund was distributed through Health Authorities, based on the number of GPs within the authority. Whilst some areas chose to distribute it equally to individual GPs, the average amount of 1400 Pounds per GP was thought insufficient to make a major contribution to overall service development. Therefore many areas chose to use all their allocation to establish co-operatives. Since there were time limits on the development fund, many co-operatives were set up in a very short time. GPs who did not wish to join or were unable to do so because of their geographical isolation thus felt that they had failed to benefit from the fund (personal communication, Hallam, 1997). Recently some cooperatives have started using their base of operations more and more as a consultation site out of hours. Patients are more often requested to visit the centre instead of receiving a homevisit. Sometimes these developments have lead to the creation of primary care emergency centres (see below).

Commercial deputising services

Deputising services provide primary care services to patients of GPs that subscribe with them. GPs pay a subscription fee to the deputising service which may include a restricted number of visits to patients and a fee each time the deputising service visits one of their patients. (The compensation to the GP for a night visit is much lower than what the GP has to pay to the deputising service). Although there has been controversy over the quality of services of commercial deputising services, they are positively regarded in some areas, like e.g. Manchester. In every Health Authority a committee exists which monitors the standards of the deputising service. Commercial deputising services operate mostly in urban areas, where it is profitable for them to operate because of the amount of night visits to be made and the number of GPs subscribing. The use that GPs made of the deputising services used to be controlled, but is not anymore. Now GPs can in fact divert all their out of hours duties to the deputising services. The physicians that work in a commercial deputising service are normal GPs who want some additional income or fulltime GPs in deputising service (personal communication, Hallam, 1997).

Primary care emergency centres

These centres can be run both by cooperatives and by deputising services. They are not a separate form of provision, but more an addition to some of the forms described above. Primary care emergency centres offer similar facilities to GPs' surgeries, and patients are encouraged to travel to the centre for medical care rather than to receive a home visit from the doctor. The site of operation can be one doctor's surgery or a separate place. Sometimes they are adjacent to the A&E department (personal communication, Hallam, 1997). However, the number over the country as a whole is still relatively small, and there is little practical experience and systematic evaluation. Centres vary widely in size,

premises, location, times of opening and facilities (Hallam et al., 1996).

Accident and emergency departments

Accident and emergency departments are part of a hospital. The access to the A&E department is free. People can go there without being referred by a GP. When the patient is admitted to the hospital after coming to the A&E department, a letter is being sent to the GP. GPs are not always informed about A&E visits by their patients which do not result in admission. The trend is towards centralisation in fewer and larger A&E departments with the closure of smaller units. Although not popular with the inhabitants of certain regions, this leads to more experience for the physicians in the bigger A&E departments.

6.2.2 Financing of acute health care out of hours

Physicians

GPs are paid 2000 pounds per year for providing out of hours services to their practice population and additionally 20 pound for each patient seen between 10 pm and 8 am. Before 10 pm and in the weekends during the day, GPs do not get any additional payments. There is no fee for telephone consultations. GPs who subscribe to a commercial deputising service pay about 7000-10000 pounds per year. The deputising service charges the GP for the patients the deputising service has visited out of hours. The GP then bills the Health Authority for the number of night visits made on his/her behalf (personal communication, Hallam, 1997).

Up until 1996 there used to be a different fee if the GP would provide the out of hours contact himself or whether he diverted it to a deputising service.

Patients

For the patient, there are no financial aspects to out of hours service. Whether the patient goes to the GP or to the Accident and Emergency service, he does not have to pay.

Travel costs for patients to the A&E department are usually not reimbursed.

Costs

According to Higgins (personal communication, 1997) the system of providing acute health care out of hours in the UK is quite cost-effective. People get rapid responses at reasonable costs. Standards are quite high. The costs are low because the GP does not get a lot of extra money from the government for providing out of hours care. If the GP wants to find a solution for being on duty all the time, he has got to pay for it himself. The amount the GP pays to the deputising services for example is much more than he gets from the government to fulfil his duties. Any other system of provision would cost much

more to the government. There are however lots of resources used if a patient goes to the A&E department directly. Therefore the gatekeeper function of the GP is a good way to balance costs.

6.2.3 Patients' perspective

Patients have a choice where to go out of hours if they are in need of health care. They can either consult the GP on call or the cooperative or deputising service in charge, or they can go directly to an A&E department. If a patient calls the GP, usually a home visit is expected. In the United Kingdom the patient been educated with the idea of a right to a GP visit at any time of the day or night. The demand from patients has risen in the past decades. Among the reasons for this, the advent of the market economy in health care and the raised expectations created by this and by patient charters have been named (Hallam et al., 1996). Receiving a telephone consultation or a surgery consultation instead of a homevisit is not something that the population is comfortable with yet. In towns or cities, A&E departments are sometimes seen by local residents as the appropriate source of care for any trauma, an accessible and convenient source of care.

The only available statistics on health care out of hours are the number of nightcalls, because GPs can claim a fee for that at the Health Authority. In the past twenty years there has been a fourfold increase in out of hours-contacts: now about 35 per 1000 inhabitants per year (personal communication, Hallam, 1997).

Patient satisfaction is not usually measured systematically across the country.
Although patients in AEDs often have to wait for hours they do not really complain about that. They feel that they needed to be seen by someone and feel reassured as soon as they have been seen by a triage nurse (personal communication, Higgins, 1997).

6.3 Current problems and developments

Acute health care out of hours has been under debate in the United Kingdom for many years. As Shaeff (personal communication, 1997) put it: "The problem is not new, the solutions are".
Major problems associated with out of hours care in Great Britain include:

1. Rising demand
The causes for the rising demand have not been researched systematically nor are there figures available, except for the number of night calls. Reasons have been sought in the

existence of the Patients' Charter and the market economy in health care (Hallam, 1994a).

2. Inappropriate utilisation of services
Patients can go straight to the A&E department. Many of the demands on the A&E departments are problems which could have been dealt with more appropriately by the GP. Another form of inappropriate utilisation is that some patients call the GP at night, because they try to bypass the appointment systems that most practices use. Some practices have waiting times for appointments up to a week. In some places, e.g. where a lot of people from the West-Indies live, GPs do not operate appointment systems. Although not systematically researched, it is suggested that these doctors get fewer calls at night, because patients feel confident they can see their GP the next morning.
The views of the A&E department and patients on the appropriateness of the use of their services frequently conflict. Various studies have estimated that between 30% and 79% of all attenders do not need the specialised services which the A&E department can provide (Hallam et al., 1996). If people would have consulted the GP first, there would have been no need to make use of the resources of the A&E department. In big cities, people are used to use the A&E department as an out of hours service, without consulting the GP first. There has been a constant campaign to patients, not to go to the A&E department unless it is a real emergency, but that has not had real results until now.

3. GP dissatisfaction with the workload connected to out of hours and what they consider to be inadequate remuneration
In innercity areas, the workload is heavy and there are dangers in being out on the streets at night alone. The problem has grown as the proportion of female GPs has risen (personal communication, Hallam, 1997; personal communication, Higgins, 1997). Though workload is not as high in rural areas where GPs cannot join a cooperative or a deputising service the number of hours spent on call is high. The remuneration GPs receive is not enough to cover the costs of deputising services.

4. lack of coordination between services
In general there is almost no communication between GPs and the A&E departments. Their out of hours services are organised completely separate. This makes that there is no coordination between the services.

Other problems are the fact that wide regional, local and between practice variations exist in the UK and that there is a lack of data on costs and evaluative studies

Developments

There is a new primary care act which enables any interested NHS-groups to set up totally new models of delivery of primary care services (not just out of hours).

The development of primary care emergency centres is relatively new. Concerning the development of a new system of delivery of acute health care out of hours, there are no plans. GPs would like a totally parallel service, but that would be very expensive. At the moment there is no incentive for the government to change it. GPs get a low pay for providing the out of hours care, but still have the contractual obligation to provide 24 hour care (personal communication, Hallam, 1997). It is not the government that is unhappy with the organisation of acute health care out of hours, it is the GP himself.

Chapter 7 Belgium

Table 7.1 Characteristics of Belgium

Inhabitants (millions)*	10.0	Percentage of BNP spent on health care*	8.3%
Percentage of publicly employed GPs**	3%	Remuneration of GPs	fee for service
Inhabitants per GP**	588	Percentage female GPs***	17%
Listsystem**	no	GP is gatekeeper**	no

* OECD health data (1995), figures are valid for 1993; ** Boerma et al., 1993; *** European Study of Task Profiles of General Practitioners

7.1 General information on health care

Organisation

Belgian health care is regulated and planned partly by the national government and partly decentralised to the regional governments. The national government (the ministry of social affairs) takes care of the contents of the compulsory provisions, the level of premiums and the agreements between the providers and the sicknessfunds ('mutualiteiten'). The national government also decides on costs containment by determining hospital budgets and the total health care budget. The regional government is responsible for the planning and (partly) for the financing of hospital investments, health promotion and preventive health care. General practitioners and specialists are working in private practice. The GP does not function as a gate keeper to secondary care. Most hospital doctors work also outside the hospital in their own private practice in which they provide primary care (Boerma et al., 1993). Belgium has got one of the highest GP and doctors densities in Europe (OECD health data, 1995). The above mentioned facts result in a competitive system with overlapping activities.

Financing

Since 1945 Belgium has got compulsory health insurance for almost the entire population (99%). Health care is financed by a combination of insurance premiums (54,5%), taxes (32%) and co-payments by patients (13,5%). Insurance premiums are paid by employees (3,55% of their income without a ceiling) and employers (3,8%). Some groups of the population are freed from this contribution. The compulsory health insurance is executed

by five historically ideologically colored sicknessfunds (*'Landenbonden'*). Every 'landenbond' composes of federations that group the real sicknessfunds per region. The largest responsibility of the 'landenbonden' is the administration of the national sickness insurance programs. The sicknessfunds receive their income from and are controled by the State Institute for Sickness insurance (Rijks Instituut voor Ziekte- en Invaliditeitsverzekering RIZIV/Insitut National d'Assurance Maladie-Invalidité INAMI). Next to the compulsary health insurance, the sicknessfunds also offer voluntary complementary insurance. There is a small market of private insurance, less than 2%.
The sickness fund takes care both of the coverage of health care costs and income support during illness. Concerning the coverage of health care costs, a division can be made between the coverage for employees, civil servants, pensioners, disabled and their dependents (85 % of the population) and the coverage for self-employed (15 % of the population). For the former large and small risks are covered, for the latter only the large risks. The large risks encompass hospital admissions and the small risks encompass drugs, general practice- and specialist care and dental care. About 70 % of the self-employed takes up complementary insurance for the small risks.

In order to discourage the use of health care, Belgium has got an extensive system of co-payments (*'remgeld'*):
- for GPs-care, paramedical and dental care there is a copayment of 30 %
- for home visits, a copayment of 35% is necessary
- for specialist care, copayments are 40%
- copayments for drugs are dependent on which division of necessity the patient is in
- hospitaladmissions have a fixed copayment per day (de Haas van Dorsser, van Kemenade, 1994).

People can get voluntary additional insurance for all co-payments. Except for the costs of hospital days this is not much done. Furthermore there is a separation between costs for care and costs for living, which means that only the costs for medical care are accounted to the health care sector; costs for lodging and caring are for the patient's own account.

GPs get paid directly by the patient. Tariffs are agreed on by providers and sicknessfunds. Signing of the agreement (convention) by separate providers is not compulsory. An agreement is valid when more than 40% of the profession has signed the agreement. The professionals that do not sign the agreement are free to set their own tariff. When this tariff is higher than the one in the agreement, the patient pays the difference. The patient gets restituted by the insurance on the basis of the agreed tariff between the sicknessfunds and the providers. (de Haas van Dorsser, van Kemenade, 1994; van Kemenade, 1993; Bertels, Cocquyt, 1995; Boerma et al., 1993).

7.2 Acute health care out of hours

7.2.1 Organisation

It is hard to define 'out of hours' in Belgium. There is no consistency in the approximate time of GPs closing their surgery. If we look at the time from which the GP is allowed to charge a higher fee, we should consider out of hours from 18.00 o'clock until 8.00 o'clock in the morning and during weekends. There is no consistent organisation of acute health care out of hours in Belgium. Most GPs work in rotas out of hours with collegues from neighbouring practices. The name and phonenumber of the GP on duty is advertised in local bulletins and in the GP's practice. Hospital A&E departments provide open access to patients (personal communication, van Lochem, 1997).
It is not known if hospital A&E departments are more busy in Belgium than in other countries where the GP is more easily reachable. In the European Study on Task Profiles of General Practitioners, a question was directed towards the arrangements for acute health care out of hours. It was shown that in Belgium 63 % of the General Practitioners took part in a rota out of hours. Remarkable was that 21,6 % of all GPs (N=499) that filled in the questionnaire were 'always on duty'.
Emergencies can be reported to the '100' number.
There are three kinds of ambulances:

- '100' ambulances; recognised by the government for emergency care in public places
- private companies
- MUG; every GP can call a 'MUG' which consists of a normal car with a nurse, and anesthesist and an emergency doctor.

Providers
The providers of acute health care out of hours are the same as within office hours.
The GPs are usually in a rota. In hospitals specialists are on duty.

7.2.2 Financing of acute health care out of hours

Physicians
Physicians are remunerated on a fee for service basis. At night and during weekends and bank holdidays the tariff is higher. Weekend nights are remunerated similar to week nights. The weekend during the day is remunerated lower. The extra surcharge for out of hours will only be charged if the patient contacted the doctor out of hours, not if the GP decided to see the patient in the evening after a telephone consultation during the day.

Patients

For patients, the higher co-payments out of hours and the restitution system can be seen as a barrier to consulting a GP out of hours. The insecurity about the GPs tariff can also cause a barrier to patients. GPs who have not signed the agreement are free to charge up to ten times as much as the official contract price indicates (personal communication, van Lochem, 1997).

Costs

It is not known if the costs for acute health care out of hours are higher than in other countries in this study. It looks as if there is a considerable amount of overlap between the services, which causes efficiency-loss.

7.2.3 Patients' perspective

From the patient perspective the organisation of acute health care out of hours is quite disorderly. The availability and accessability of the GP is not garanteed out of hours. It is not always clear which doctor is on duty. If they find a doctor, they do not know in advance how much the GP is going to charge. Patients are free to choose whether they want to see a GP or whether they want to visit the hospital.

7.3 Current problems and developments

One of the problem of the organisation of acute health care out of hours, is that it is not consistently organised. This causes insecurity to patients. Another problem is caused by the co-payments for patients which can be quite extensive out of hours. Patients are not subscribed on the list of a GP, this causes 'Medical shopping' which poses a big problem to health care in Belgium (de Maeseneer, 1995). For acute care out of hours, medical shopping is not so easy and it can be a problem to patients to find a doctor. As a solution, there have been requests in Belgium to get one phonenumber for all acute health care out of hours. These phones could be answered by GPs who could triage patients. In Liège and Gent, there have been experiments with GP-triage.

Chapter 8 The Netherlands

Table 7.1 Characteristics of the Netherlands

Inhabitants (millions)*	15.2	Percentage of BNP spent on health care*	8.7%
Percentage of publicly employed GPs**	7%	Remuneration of GPs	capitation/fee for service
Inhabitants per GP**	2310	Percentage female GPs***	19%
Listsystem**	yes	GP is gatekeeper**	yes

* OECD health data (1995), figures are valid for 1993; ** Boerma et al., 1993; *** European Study of Task Profiles of General Practitioners

8.1 General information on health care

Organisation

One particular characteristic of Dutch health care is the mix of public funding and private provision of health care. Most hospital and specialised health care facilities are owned and managed by independent non-profit religious or charitable organisations. The provision of health services is structured in four layers. The basic echelon includes collective disease prevention and health education. The first echelon is primary health care which is dominated by private initiative. Generalist primary care is directly accessible. For secondary care (the second echelon), like specialist or acute hospital care, a referral is needed. The third echelon consists of long term care in psychiatric hospitals, centres for burn wounded people and nursing homes (Boerma et al., 1993). Most general practitioners are in private practice, although there is an increasing tendency for GPs to cooperate in group practices. Some of the strong features of general practice in the Netherlands include the listing of patients with one GP and the gatekeeper role of the GP. Patients have a free choice as to which GP they register with. GPs make many home visits; 17% of all visits are visits to the home. The idea behind this is that homevisits provide a window on the living conditions of patients and families, and are made for both acute situations and chronic conditions. The degree of homevisiting depends on the diagnosis, the reason for encounter and the age of the patient (de Melker et al., 1995).

National policy making and overall financial supervision is the responsibility of the Minister of Health, Welfare and Sports. An important feature is the specific nature of decision

making in Dutch health care. Health policies are shaped on the basis of consensual processes, consultation and policy debate.

Financing

Central concepts in health care financing in the Netherlands are accessibility and solidarity. The two-tier health insurance system reflects these principles: a public system for everybody below a certain income level and private insurance for the remainder of the population. The people below the income level (around 60000 guilders a year) are compulsory insured with a sickness fund (64% of the population). People earning above that level insure themselves privately. Additionally, great (expensive) risks for all the population are being covered by a special insurance fund (AWBZ). Most of the health care costs in the Netherlands are paid for by premiums. There is only a small of amount of state subsidies. Tariffs are decided upon by the governement after consulting the central tariffs' organ[3]. For several performances there are co-payments in the Netherlands (also for sickness fund patients). The premium for sickness fund patients is a certain percentage of their income. People can also take up additional insurance (e.g. special dentist care, alternative medicine) (van der Maas, Mackenbach, 1995; Elsinga, van Kemenade, 1997).
The care of Sickness Fund patients is provided by family doctors under contract with the Sicknessfund. Sickness funds require family physicians to be available around the clock, seven days a week. Payment is made on the basis of an annual capitation amount for each person on the GP's list. The payment formula covers income, practice costs, costs of postgraduate courses and pension. Privately insured patients pay their family doctor a fee for service for which they are reimbursed by their insurance company (after deduction of co-payments). The tariff for sicknessfund patients and for privately insured patients is negotiated between the Dutch Association of Family Doctors and a representative body of the insurance companies.

8.2 Acute health care out of hours

8.2.1 Organisation

General practice

For general practice the most common way of organising acute health care out of hours is with rotas within a certain group of GPs (hagro's: huisartsengroepen) (Schuller, de Bakker, 1996). Each city is divided into several of these GP-groups. From every hagro

[3] COTG = Central Organ for Tariffs in Health Care (Centraal Orgaan Tarieven Gezondheidszorg)

usually one GP is on duty (Vogel, 1997). Hagro's have between a few and fifteen members. This is also the starting-point in the report of the Dutch Association of General Practitioners (LHV, 1987). Is this report and in the GP-standards of the National College of General Practitioners (NHG) guidelines have been written down regarding duty arrangements. Important guidelines in this respect are the time for arriving to a patient (less than 15 minutes) and the population size (less than 20000 people). In practice these guidelines are not always followed. There are GPs on duty for more than 20000 people for example. Especially in some of the newer models (see section 5) these guidelines do not apply. In the Task Profile Study 94% of all GPs were part of a rota for acute health care out of hours. A secondary analysis on the data of the National Study[4] (de Bakker et al., 1994) provided the following numbers. The number of contacts per GP are when on duty:

- 2.7 per night on Monday to Fridaynight
- 3.2 per night on weekend nights
- 18.8 per day on weekend days

Out of hours the 52,9% of all contact are clinic consultations, 30,1 % are home visits. Out of hours more contacts are with little children than within office hours.

The average Dutch GP is 14 times on duty per 3 months. These 14 duties consist of 10 evening/night shifts during the week, 2 evening/night shifts in the weekend and 2 dayshifts in the weekend. However, there is a large spreading around this average number (de Bakker et al., 1994).

Acute health care in hospitals

For some specialisms in hospitals 7x24 hours accessible acute health care is a condition for keeping their qualification of being a hospital with education facilities. Protocols and procedures within the department and agreements with the central ambulance post are written down. The image the general public has about A&E departments is one of maximum accessibility, a lot of expertise and experience and huge technical possibilities. This image is even strengthened by the media. Hospitals have to compete more now a days to keep the adherence to their hospital. The way in which the hospital takes care of the A&E department determines the image of the hospital and is important for the flow of patients to certain specialisms. Since 1996 there is a law on quality of care[5] which forces hospitals to deliver qualitative good health care. In practice this means that the hospital

[4] The Dutch National Study of Morbidity and Intervention in General Practice, conducted by the NIVEL. A representative sample survey of Dutch GPs (N=103) was selected and all contacts with patients were registered over a period of three months.

[5] Kwaliteitswet Zorginstellingen (Staatsblad van het Koninkrijk der Nederlanden, jaargang 1996, nr. 80, pp 1-10)

has to examine every patient that comes to the A&E department, even if they should belong to a GP. In small hospitals the situation is different. Garanteeing 7x24 hour access is with just a few patients per night very costly. Small hospitals sometimes choose to have only their A&E department open during office hours. Out of hours patients are sent to one of the GPs on duty or to a neighbouring hospital (van Beusekom, 1997).

Ambulance

For emergencies there is a national telephonenumber (112). A call will get through to the Central Post Ambulances (CPA). The person answering the phone (nurse/centralist) decides which form of help is needed and which ambulance should be sent there. This can either be a public or a private ambulance. These ambulances are in contact with the centralist by mobile phones. Within fifteen minutes an ambulance has to be able to get to the place of emergency. The ambulance will transport the patient to the nearest general hospital (Goris, 1990).

Providers

At A&E departments, junior doctors are working as triage and gate physicians. They treat the less serious cases and call, if necessary, the appropriate senior physician to the scene. In general practice, GPs provide health care out of hours.

8.2.2 Financing of acute health care out of hours

Physicians

GPs are remunerated differently for sicknessfund patients and for patients which are privately insured. For sicknessfunds patients, GPs do not get any extra money out of hours. As explained before, they receive a capitation fee which covers the whole range of general practice care (24 hour care). For privately insured patients GPs can charge double the amount of a consultation within office hours.

Patients

Compulsory insured patients with a sicknessfund do not pay anything for consulting a GP out of hours. For sickness fund patients there are co-payments (20% of the costs) for ambulancetransport and medical specialists. Privately insured patients pay quite a high amount (double the amount of a consultation during the day) for which they get (partly) reimbursed (depending on their insurance).

Costs

There is not so much known about the exact costs of acute health care out of hours in the Netherlands. For the sicknessfund health care out of hours does not cost extra. GPs pay

the extra costs for cooperation with other GPs themselves. Also costs for central posts or mobile phones are not paid for by the insurance companies.

8.2.3 Patients' perspective

Patients are in general well known with the place and the accessibility of the hospitals. Engelenburg (1992a, 1992b) studied the demand for health care on weekday-evenings in the Hague and Rijswijk. 80% of all demand was taken care of in first instance by the GP. A&E departments took care of 20% of the demand. Of these 20%, 50% could have been taken care of by the GP, according to the provider at the A&E department.

Bottlenecks with regard to inappropriate demand seem to happen mostly in the larger cities. On the other hand they found that in the city patients are less satisfied about the accessibility of the GP (80% thinks that the GP is easily accessibly in the city in comparison to 90% in the more rural areas) (de Bakker et al., 1994). Research into patient satisfaction is limited to the evaluation of certain projects.

8.3 Current problems and developments

Research of the NIVEL (Schuller, de Bakker, 1996) in Rotterdam shows that 80 % of the GPs sees health care out of hours, especially at night and weekend evenings and nights as a heavy burden. Burdening aspects of the duties are patient behaviour (demanding behaviour, inappropriate demand) and the burden on the family life of the GP. In further analyses in the same study it was found that there was little connection between the experienced burden of duties and the organisation of the duties. Only busy duties and the existence of problem groups in the practice were connected to a larger burden.
These aspects and other reasons have caused groups of GPs to reconsider the organisation of the duties. In some cities this has led to the actual changing of the arrangements. Some of these arrangements will be described below.

GPs' service in The Hague
The oldest model exists from the 1940s and was started due to the conditions under the second world war. Within this central organisation[6] about three quarters of all GPs in the

[6] There are more, rather similar models tried in the Netherlands, for example in 's-Hertogenbosch and in Utrecht (nightcare). Although the conditions are not exactly the same as in the Hague, they are alike in the fact that they consist of a central organisation of the duties. The differences can be found in the equipment of the central post, the scale, the financial arrangements and the duty periods (e.g. 's

Hague (180 GPs), share their duties during evenings and nights for a population of 400,000 people. The GPs' service disposes of their own clinic (consisting of 2 consultation rooms, a telephone room, a rest/sleeping room, a room for the driver and a waiting room) and uses between 19.00 and 2.00am taxis to do emergency home visits. During the evening duty (19.00-1.00) there are three GPs on the post answering the phone and doing clinic consultations. Two other GPs are doing homevisits by taxi and can reach any house within 15 minutes. During the night duty (1.00-7.00) two GPs answer calls at the post and one GP is doing homevisits. The taxidriver has first aid skills and can accompany the GP in cases of difficult situations. During evenings it is much busier than at night; at night there are only a few visits and consultations and several phonecalls. All performances (also telephonic consultations) are being written down on pre-printed forms. A GP pays the costs of a consultation to the post for his own patients. He also pays a certain amount if he is not able to fulfill his dutyshift (NP/CP, 1994; Burger, 1995; Oudenampsen, Rijkschroeff, 1993).

Almere

Almere is a relatively new city in the Netherlands. This means that when the city was built, health care could be built up too. GPs in Almere have been the first responsibles for first aid and other emergency medical care form the beginning. All primary care in Almere is taken care of by one foundation which employs the GPs and other personnel. There are 16 health care centres in Almere, with about 70 GPs employed. In 1996, about 120,000 people lived in Almere. During weekdays, the health centres are accessible until 17.00 o'clock. At night from 17.00-22.00 and during the weekend during the day, two centres are open for acute health care. A trained nurse is than on the post and she can call the GP if necessary. At night, these posts are closed. The intercom at the door of the centre is connected to the GP on duty. Sixma (1988a, 1988b) describes that in 1988, 90% of the population in Almere went for acute health care to their GP. From all first aid cases, 83% went to the GP. This was before the opening of a hospital in 1991. The GP-share in first aid has fallen to 65 %. The organisation of the duties in Almere was until April 1997 quite traditional within groups of GPs. Recently they have changed this system to a system of duties which consists of a central posts. A car with chauffeur will drive the GP on duty from the post to the patients if necessary. For Friday, Saturday and Sunday-night a new GP is hired. All patient records are accessible from the posts by means of computers (Vogel, 1997).

Hertogenbosch arrangements are only available in weekends).

Velsen

Due to the merging of three hospitals in the neighbourhood of Velsen, the location of the hospital in Velsen had to be closed down. This was used as an opportunity to experiment with transmural care. The location that was empty was rebuilt to an ambulant care centre with out patient departments, daycare and a somatic department for a certain group of patients.

With the GPs in the area it was agreed to open a GP-centre in the old hospital from which the GPs would provide acute care out of hours. The centre consists of a room for a nurse, a consultation room, three examination rooms and some treatment rooms. The GP-group consists of 28 Gps and a population of 60,000 people. From 17.00-8.00 and during week-ends there is a GP at the post. In the future there will be a GP around the clock. At the moment there are a junior doctor and a nurse always present. For the hospital this was an opportunity to keep the adherence to the hospital (Wildevuur, 1996; Peters, 1996; Kennemer Gasthuis, RHV IJmond, 1997; personal communication van den Aartweg, 1997).

Rotterdam

In connection to the research of the NIVEL (Schuller, de Bakker, 1996) a plan has been set up for a new structure of health care out of hours in Rotterdam. In this plan it is foreseen that GPs can choose for participating in 4 modules: a telephonemodule, an evening module, a night module and a weekend module. The telephonemodule consists of a permanent telephonic accessibility via throughput equipment to a central post where an assistant takes care of calling the GP on duty. The night module consists of taking care of the duties from 23.00-8.00 by five GPs for the whole of Rotterdam operating from 4 central posts. 4 more GPs are on call at home if necessary. The GPs who are on duty during the night have their practice taken care of the next day. The evening module is from 17.00-23.00. For homevisits the GPs on duty are provided with a car with chauffeur and mobile communication material. The whole area is divided into four subregions. A central consultation post will be equiped in every subregion. This model has not started yet, and the success depends highly on the number of GPs cooperating (van Beusekom, 1997).

According to Berden et al. (1996) a problem is that there is little of no attention for the relation between different organisations and providers in emergency care in the Netherlands. The chain is not strong enough. Since ambulances nowadays do more than just transporting the patient to the nearest hospital, more tuning with the GP and the hospital are desirable. The position of the GP in emergency care is less than clear and makes the demand for exchange of information even bigger.

Part III

Chapter 9 A cross national comparison

Chapter 10 Discussion and recommendations for further research

Chapter 9 A cross-national comparison

9.1 Introduction

In this chapter the separate countries are alongside each other on certain aspects. This will make comparison possible. Preceding the comparison the research questions are brought to mind again:

1. How is acute health care out of hours organised and provided in the selected countries?
2. How is acute health care out of hours financed in the selected countries?
   a. How are physicians involved in acute health care out of hours remunerated? Does the remuneration out of hours differ from the remuneration during office hours?
   b. Do patients have to contribute financially for acute health care out of hours in addition to the contribution for health care in general?
   c. What are the costs of acute health care out of hours?
3. What are the specific problems and recent developments in the delivery of acute health care out of hours in the selected countries?

Question one to three were answered through a description of the separate countries in Chapter 4 to 8. In this chapter the results are summarized and compared on important aspects of these questions. Section 9.2 reviews the organisational arrangements from a cross-national perspective and Section 9.3 the financial arrangements. In Section 9.4 problems that are encountered in the countries are described and models for the organisation of acute health care out of hours are distinguished. Section 9.5 ends this chapter with the conclusions. In the next chapter the methods used are discussed and recommendations for further research are given.

9.2 Organisation of acute health care out of hours

Speaking of acute health care out of hours, first of all one has to bear in mind that there are no identical time limits for 'out of hours' across the countries, which can be seen in Table 1. Not only are they not identical, they are often hard to define at all.

Table 1:

What is considered out of hours?

	Generally accepted definition	Out of hours time limits
Denmark	yes	16-8 + weekends
United Kingdom	no	Cover provided 19-8 Night fee from 22-8
Sweden	yes	17-8, weekend only afternoons and evenings and nights
Belgium	no	Higher fee: 18-8
Netherlands	yes	19-8

Nothwithstanding the fact that there are no cross-national identical time limits for 'out of hours', differences between arrangements during office hours and outside office hours can be distinguished. Due to the fact that the organisation of acute health care out of hours in A&E departments is delivered very similar across countries, the focus of our attention was from the beginning of this study pointed at the arrangements of GPs for acute health care out of hours. A&E departments were always directly accessible for the public. Referrals were not needed. Before comparing the organisation of acute health care out of hours between countries, it is also important to know if the organisation differs within those countries. In Table 2 we summarized the results.

Table 2:

Is acute health care out of hours organised similarly across the country?

United Kingdom	No
Denmark	Yes
Netherlands	Yes
Sweden	Yes
Belgium	Yes

As can be seen in Table 2, acute health care out of hours is organised quite similarly within the countries studied. This does not mean that there is one organisation taking care of acute health care out of hours, but that most GPs make use of the same model of arrangements for providing health care out of hours. Only in the UK, we found a mix of different organisational arrangments. This does not mean that there are absolutely no differences within the other countries, but they are not so widespread, limited to a certain small area or city or on experimental basis.
In Denmark, GPs arrangements are organised on county-level. Between counties there may be some small differences, but the general idea is for GPs to be part of one large cooperative. In Belgium, Sweden and the Netherlands, the most common model is that of A&E departments with open access and GPs arranged in the form of rotas out of hours.

Table 3:

Do GPs have 24 hour responsibility for their patients?

Yes (list system)	*No (no list system)*
Denmark	
the Netherlands	
United Kingdom	
	Belgium
	Sweden

From Table 3 it can be seen that out of the five countries studied, only three have a list system with 24 hour responsibility for their patients. A list-system means that patients have a family doctor who holds their patient record and who is their GP for a longer period of time. The 24 hour responsibility does not mean that the GP has to be always on duty, they may make arrangements with other GPs like in the form of rotas. The 24 hour responsibility may influence the commitment of GPs with acute health care out of hours. It can be seen that in Belgium, where there is no such 24 hour responsibility for GPs, the provision of acute health care out of hours is often not so clear to patients because of the lack of a family doctor. Out of hours it can be quite difficult to locate a GP. In Sweden, where GPs also do not have 24 hour responsibility for their patients, acute health care out of hours is arranged very clearly. Health centres and GP-practices cooperate in rotas just like in the countries with 24 hour responsibility.

In the Task Profile Study, one question was directed towards acute health care out of hours:

"Who is responsible for emergency service during your off-duty hours?

1. *no specific emergency service*
2. *you are (almost) always on duty for emergency service*
3. *a group of GPs on a rota basis (you are one of them)*
4. *a group of GPs on a rota basis (you are not one of them)*
5. *one or more doctors (not GPs); you retain the overall responsibility (you are not one of them; e.g. locum service)*
6. *emergency services are not your responsibility*
7. *another arrangement"*

Although the Task Profile study resulted in a lot of valuable information, the information derived from this question was only indicatively useful for our study. Acute health care out of hours was in reform in Denmark when these questions were posed. The results would have been different if we would pose the same question today. The results have been mentioned separately in the Chapters 4 to 8 and are summarized in Table 4.

Table 4:

Question **1.21** (TP)	Belgium	Denmark	the Netherla-nds	United King-dom	Sweden
1. no spec. em. serv	6,2	-	0,5	0,7	1,9
2. always on duty	21,6	3,1	2,9	12,3	-
3. rota (incl. you)	63,0	64,8	94,2	68,3	85,1
4. rota (excl. you)	3,4	23,5	1,9	6,3	5,3
5. NON-GP (you resp.)	0,6	-	-	7,0	1,0
6. you not resp.	2,0	4,6	-	0,4	3,4
7. another ar-rangement	3,2	4,1	0,5	4,9	3,4

Even though the constraints mentioned above, the results show some interesting things. In these five countries, the majority of GPs rely on a rota which includes them (score 3).

Especially in the Netherlands, the figure is remarkably high (94,2%). In Belgium and in the United Kingdom quite a high percentage of GPs is 'always on duty' (score 2). We tried to find if the variance in this question could be (partly) explained by two other variables concerning respondent's main position (salaried, self-employed under contract and self-employed without a contract) and the practice location (from rural to innercity). No clear relation could be detected across countries. It could only be seen for example that of the 21,6% 'always on duty' in Belgium, 47,2% had their main practice location in rural areas.

It can be concluded that in every country, except for Denmark, rotas between cooperating practices are still the most common way of organising GPs duties out of hours. They are not exactly the same in every country or even in every part of a country. They differ in the number of participating GPs, the time that is taken care for and the location of the arrangement. In rural areas there are almost no differences concerning the organisational arrangements of GPs between the countries, namely a few GPs working in a rota from their own home, taking care of nights and weekends. In Denmark, the organisation of duty arrangements for GPs is completely different. There GPs cooperate in one large organisation per county. In the United Kingdom, the picture is quite scattered. In the rural areas, mainly rota schemes are used, but in the more densely populated areas, there has been a large development of cooperatives and commercial deputising services. Comparing the possibility of GPs to put out their duties, it was shown that this is most developed in the United Kingdom. Commercial deputising services exist there which take over the duties for a certain amount of money. This development has not been demonstrated in other countries. In the other countries, duties can be taken over by collegues from the rota or from a larger cooperative, but they cannot be put out to an official deputising service.

9.3 Financing of acute health care out of hours

Concerning the financing of acute health care out of hours, we defined three aspects of importance: the remuneration of GPs out of hours, co-payments for patients and costs of arrangements out of hours. The first aspect is summarized in Table 5.
In most countries, some sort of fee for service is the most common way of financing the GPs out of hours. Who pays is different between and within countries; it can be the patient himself who gets reimbursed by his insurance, or some other third party payer. We would expect that GPs receiving a salary for their work, no matter how many services they perform, work less out of hours than GPs who receive fee for service. This cannot be demonstrated in these five countries. For example in Denmark, where GPs get remunerated on a fee for service basis, 32.2% is not involved in providing acute health care out of hours, according to the TP-study if we sum up score 4 to 7 (Table 4). In the Netherlands,

where GP receive for a large part of their patients a capitation fee including 24 hour care, only 2.4% is not involved in providing acute health care out of hours.

Table 5:

GPs' remuneration out of hours

Denmark	Fee for service paid by 'sysesikring';
Netherlands	Privately insured patients: fee for service (reimbursed (partly) to the patient by their insurance Sicknessfund patients: capitation fee for GPs includes health care out of hours
Belgium	Fee for service paid by the patient (reimbursement (partly) by the insurance.
United Kingdom	Night fee after 22.00, charged to the health authority. GPs get 2000 pounds per year for providing out of hours services to their practice population, and additionally 20 pounds per patient seen.
Sweden	Salary plus benefits out of hours. Compensation both in time and money.

Table 6:

Different fees for different services rendered?

Denmark	Yes. Compensation for a homevisit or a clinicconsultation is less than for a telephone consultation.
Belgium	Yes, compensation for homevisit is higher than for a clinic consultation
Netherlands	Yes, for privately insured patients, compensation for homevisit is higher than for clinic consultation
Sweden	Yes, home visits cost more than clinic consultations
United Kingdom	Only fees for seeing the patient, not for telephoneconsultations.

In Table 6 it can be seen that in every country, the fee structure is different for different services. Except for Denmark, home visits get remunerated higher than consultations to the practice or telephone consultations. In Denmark, the fee structure was changed in order to provide a strong incentive for GPs working in the telecentre. Telephone consultations are much higher remunerated than consultations in the clinic. The effect of this change is hard to detect, since not only the fee system changed in Denmark, but also the whole organisational arrangement.

The next aspect we looked at concerned co-payments for patients for acute health care

out of hours. Co-payments were found in every country except for Denmark for people with group 1 health insurance and in the Netherlands for sickness fund patients.
In Sweden there are quite extensive co-payments. They have been raised in the past few years. The fee for visiting the A&E department has been raised drastically and the fee for visiting primary care has been lowered in order to provide an incentive for patients not to go to A&E departments inappropriately. The effect of this change has not been reported yet.

Concerning the financial aspects of acute health care out of hours a lot of variation can be found between the countries studied. The five countries differ on all three aspects of financing as described in Chapter 2. Financial accessibility is valued differently by different countries. The Swedish model is seen as very accessible and well organised in Sweden, even though extensive co-payments for patients exist.

9.4 Problems and developments in acute health care out of hours

9.4.1 Common problems

In Chapter 2 we reviewed the literature on acute health care out of hours and important issues and problem areas were described. The problems ranged in general from inappropriate demand to inappropriate supply. The problems and issues described in Chapter 2 have been found in almost all of the countries, except for Sweden. In Sweden, acute health care out of hours is not an issue at the moment. They do experience some of the same problems, but those problems are not regarded as such. Three main problems in the countries studied can be summarized as follows:

1. Burdening aspects of duties for GPs. This burden is caused by inappropriate demand, working in a less safe environment, and the burden on family life.

2. Inefficiency of duty arrangements; relatively many GPs are on duty for a relatively small part of the population.

3. The lack of coherence between services.

Even in Denmark where a complete new arrangement for GPs out of hours has been set up, questions concerning the cooperation with A&E departments remain. In all countries studied there is almost no cooperation between the A&E department and the GPs service. Often these services serve different parts of the population (seriously ill versus minor

illness), but there is also a considerable amount of overlap. This is where the inappropriate demand happens. Although patients may be treated better when they get to the right source of care, they do not regard this as a problem. For them, it has advantages to be able to choose and to have open access to A&E at any time. There should be some consideration about what is seen to be more important. The question is whether patients should hand in some of their freedom in exchange for a more efficient organisation of acute health care out of hours. The reported problems are not new, they have already been reported many years ago, but there is a different attitude towards them. There are now-a-days more solutions for these problems. Also the fact there are now more female GPs amy influence the opinion of GPs in professional associations. The reasons that have been stated for the fact that patients are more demanding are not clear. The evidence for this is only anecdotal.

9.4.2 Evolving models

In Chapter 4 to 8 several 'models' of arranging out of hours duties for GPs have been described. Those models often serve two purposes: to direct demand to the appropriate source of care, or, secondly, to organise acute health care out of hours more efficiently. In three of the five countries studies (Denmark, the Netherlands and the United Kingdom) a search for new models of GPs duties out of hours can be detected. These models are seen as solutions for common problems of GPs in acute health care out of hours. First of all these models are seen as a solution for the workload of the GP. Secondly they are seen as a very efficient way of organising duties. And thirdly they are seen as an answer to inappropriate demand from patients. We can distinguish three sorts of models for the arrangements of GPs out of hours. These models are not iconic, idealtypical models. They are more or less empirical generalisations which cannot be seen as exclusive categories. Other division are well possible.

1. Informally organised rota-model
In this model the GPs arrange their duties with a certain, small group of GPs. In rural areas, the rota is usually quite small because of the large distances between practices. This means that a GP has to be on duty quite often and will not be disturbed very often during the night. This model can be found in every country studied. Advantages of this model are that it is quite easy to arrange. It does not cost any extra money for GPs since there are no special consultation rooms etcetera necessary. The disadvantages can mainly be found in the burdening aspects for GPs.

2. Formally organised cooperatives
This model is quite widespread as well. Althought the basic idea does not differ very much

from the previous one, the arrangement is much more formally organised than the rota-model. Another apparant difference is the scale on which these more formally arranged models are organised. This model can be found in the United Kingdom, in Denmark and in the Netherlands. Cooperatives consists of large groups of GPs cooperating on the duties out of hours. There is a large variation in cooperatives. As described in Chapter 6 (United Kingdom), cooperatives can vary amongst others on the number of participating GPs, the level of use of information technology, the premises and the way of transportation. An advantage of these large arrangements is the fact that certain aspects can be organised on a more professional way. It is for example possible to hire taxi-drivers with a diploma in first aid to drive the GP to the patient if necessary. This solves for a great deal the feeling of insecurity to be out on the streets at night, which is a problem for many female GPs in large cities.

3. Deputising services
Although deputising services are internally organised quite like cooperatives, they are very different since they are not part of the daytime GPs service. They are hired by GPs and provide relieve for GPs. Although there has been quite some controversy surrounding commercial deputising services in the UK, negative inluences for the patients were not demonstrated.

4. Substitution models
These models really aim to be a solution to the problems of inappropriate demand and inefficient supply. There are several variations to this model which include GPs working in A&E departments and also models like in Velsen, where a hospital was closed down and the GPs take now care of first aid or in Almere where there was no hospital for a long time. The question is whether real substitution occurs; whether patients with primary care needs arrive at the GP instead of going to the A&E department.

9.5 Conclusions

Between the countries studied, variation in acute health care out of hours was mainly found on arrangements of GPs. Differences were not only found across countries but also within countries. In many countries the traditional way of organising duty periods for GPs was by means of a rota-system. These rota arrangements would consist of something in between a few and twenty GPs. The larger arrangements like the cooperatives in the United Kingdom and the new models like in Denmark or on a smaller scale in the Netherlands have mainly mushroomed in the last years. These models are generally seen as a way to lighten the workload of GPs and a way in which duty periods can be organi-

sed more efficiently. From a patients' perspective, complete availability and accessibility is desirable, but it seems that many patients that go to A&E departments could better be taken care for in less specialised settings. In most cases it is not the patient who is asking for changes in the arrangements of GPs out of hours, but the GPs who feel the burden is too high. We think of A&E departments and GPs arrangements as communicating barrels, but this assumption does not always hold. Creating better access to GPs at night, clearly creates also some demand (better accessibility during the evenings serves convenience of some people) and thereby raises costs. Solutions for inappropriate demand in the A&E department may be found in appropriate management of A&E departments. It seems doubtful if any policy which formally aims to restrict patient access to A&E departments, to make it only accessible for serious illness or injury by using introduction of high user charges or triage systems would be publicly or politically acceptable. Direct access to A&E departments is a sensitive issue in many countries.

Although we have seen interesting developments in the arrangements of GPs for acute health care out of hours, there has not much evaluation been reported concerning their influence on the use of services and on the cost-effectiveness.

Cost-savings associated with substitution may not be as large as often assumed. The average costs of treating minor injury or illness in an hospital A&E department maay be high, the marginal costs are low. Costs might actually be raised by developing a complete new tier of health care in terms of centres where patients can go for acute health care out of hours, like in Denmark.

It is very important to realise that most of the new developed models came into existence in a very specific context. For example, in Velsen, the closing down of a hospital provided the opportunities to start with something radically different. These radical changes cannot be transfered to any other country at any point in time. The scope for development is often considerable. But there have to be coinciding factors that make the change possible. In Denmark it was shown that professional associations can be the driving force behind the changes. The scope of change is considerable in all countries. In all countries problems have been reported and debate about other ways of organising acute health care out of hours has been going on. In all countries, the discussions will develop the opinion of both GPs and the public. In rural areas the scope for change is small, simply because of the lack of alternative ways of organising duties. For organisation acute health care out of hours in more densely populated areas, there are more possibilities. It will depend on the local situation which arrangements will be made up, although one characteristic is certain; it will be organised on a larger scale. For the rest, the scenarios remain highly speculative at this point in time. Research on the impact of the different options on the use of services and on cost-effectiveness is highly required.

Chapter 10 Discussion and recommendations for further research

In this chapter the methods used in this study will be discussed and recommendations for further research will be given.

10.1 Discussion

There are several aspects of this study that can be discussed. The foremost issue that can be raised is the selection of the countries. This study has selected the countries mainly on the basis of practical considerations. Other countries would have shown other characteristics that may have been interesting as well. For example, in Germany the system of provision specialist consultations and consultations out of hours is very different from the systems in the Netherlands or Sweden, where specialist have their office within the hospital. This completely different system in Germany leads to a completely different provision of acute health care out of hours. Another point of critique can be the methods used. We started out with a literature study which was quite broad. As was suggested by Kroneman and van der Zee (1997), literature in the language of the countries under study was read. These were mainly articles that were brought under the eyes of the author by the experts in the separate countries. Databases in the countries language which may reveal interesting research have not been used, because consulting those databases would make a longer stay in the countries necessary.
The interviews were conducted with contacts of the NIVEL and personal contacts of the author. They were arranged so that it was possible for the author to go there within budgettary limits. For example, in Sweden, only experts situated in the South were interviewed. Especially in countries like Sweden, were the situation is different from county to county, it may be necessary to speak to experts from other counties.
The information retrieved is mainly qualitative. We aimed for a description of the organisation and financing of acute health care out of hours with addititional quantitative data.
This data proved to be not available through the methods used for this study. Especially data on the use and the costs are missing. Finding those data would be extremely interesting since it could be proved then that certain systems work more efficiently than others.
The systematic description of acute health care out of hours per country is not always as similar as we would have liked to see. This is mainly due to the lack of information. Different sources contained information on different aspects of the countries. We decided to describe the information available per country instead of leaving out any information that could not be obtained for any other country. Another aspect is that in some countries, the main source of information personal communication (interviews). Although personal communication may not be so trustworthy as information retrieved from scientific articles

we had to use it when written information was not available. It can also be positively regarded as a source of very up to date information. The validity of the information is assured by sending the description to the country and to have it checked by other experts. Even though this study does not reveal quantitative data, it is still important that we have now a complete description of the scene of acute health care out of hours in five countries. Also the evidence described in Chapter 2 concerning the factors that are of influence can be used in the further research.

10.2 Recommendations for further research

At the end of this thesis we would like to use the experience gained by making recommendations for further research. Further research can be extended into two directions. Either in the direction of more countries studied using the same design or studying the same (or other countries) using a different, more extended design.
For further selection of countries to be included in this study we would like to recommend to start out with countries that have an organisation of acute health care out of hours that is very different from the countries studied in this study, e.g. Italy where only 15% of all GPs is involved in acute health care out of hours (Boerma, 1994). The design of the study could also be adjusted to the lessons learned in this study. First of all it became clear, that information on costs and use was not readily available with the methods used. In futher research the methods should be adjusted to this problem. First of all a sound cost-model should be developed. Using this model, it should become clear which cost-information should be found or calculated in order to be able to compare the results in the end. Another recommendation concerning the design is the use of more experts and experts from more different backgrounds, for example from the associations of physisicians in the respective countries, or with experts from the Ministry of Health. Other sources that should be used are databases on scientific articles in the countries' own language. Through this study a lot of valuable information has been retrieved following a systematic framework. Further research can draw on the lessons learned in this study.

Summary

In this thesis the results of a study into the organisation and financing of acute health care out of hours in five countries are described. The countries we selected for studying are Denmark, Sweden, the United Kingdom, Belgium and the Netherlands. The study was part of a European Study into the Use and Supply of Acute Health care out of hours (EMOCA).

This thesis is divided into three parts. Part I consisted of the introduction (Chapter 1), the development of the framework for the descriptions of the countries studied (Chapter 2) and an explanation of the methods used (Chapter 3). In Chapter 2 a literature study concerning important aspects of acute health care out of hours was described. Factors that influence the use of acute health care out of hours were identified. They could be divided into demand-related and supply-related factors. Important issues concerning acute health care out of hours are the rising demand for out of hours care, the problem of inappropriate demand, the burden of out of hours care on GPs, the lack of coherence of services and new models that have been developed to cope with these problems. In Chapter 3 the methods used for this study were described. The method consisted of a literature study and semi-structured interviews with experts on the subject in the countries studied.

Part II of this thesis consists of the descriptions of acute health care out of hours per country. The description contains information on the organisation, the financing, the patients' perspective, problems and recent developments per country.

In part III consists of Chapter 9 and 10. In Chapter 9 the information retrieved per country was put together and models for acute health care out of hours were described. In Chapter 10 we have looked critically at the methods used for this study and recommendations for further research were formulated.

Samenvatting

Deze scriptie vormt het verslag van een onderzoek naar de organisatie en financiering van urgente gezondheidszorg buiten kantooruren in vijf landen. The geselecteerde landen zijn Denemarken, Zweden, Verenigd Koninkrijk, België en Nederland. De studie vormt een gedeelte van een Europees Onderzoek naar het gebruik en het aanbod van urgente gezondheidszorg buiten kantooruren (EMOCA).
Deze scriptie is opgedeeld in 3 gedeeltes. Deel I bestaat uit de introductie (Hoofdstuk 1), de ontwikkeling van een kader voor de beschrijving van de bestudeerde landen (Hoofdstuk 2) en een uitleg over de methoden die hiervoor gebruikt zijn (Hoofdstuk 3). In Hoofdstuk 2 vormt het verslag van een literatuurstudie naar belangrijke aspecten van urgente gezondheidszorg buiten kantooruren. Factoren die het gebruik van gezondheidszorg buiten kantooruren zouden kunnen beïnvloeden werden geïdentificeerd. Deze factoren konden ondergedeeld worden in vraag gerelateerde factoren en aanbod gerelateerde factoren. Belangrijke issues met betrekking tot gezondheidszorg buiten kantooruren zijn: de stijgende vraag voor gezondheidszorg buiten kantooruren, het probleem van oneigenlijk gebruik, de werklast voor huisartsen, het gebrek aan afstemming van de verschillende aanbieders van zorg en de nieuwe modellen die hiervoor ontwikkeld zijn.
In Hoofdstuk 3 zijn de methoden die voor dit onderzoek gebruikt zijn beschreven. De methode bestond uit een literatuurstudie en uit semi-gestructureerde interviews met experts in het onderwerp uit de vershcillende landen. Deel 2 van deze schriptie bestaat uit een beschrijving van urgente gezondheidszorg per land. De beschrijving bevat informatie over de organisatie, de financiering, het patiëntenperspectief, de problemen en recente ontwikkelingen per land. In deel III bestaat uit twee hoofdstukken (Hoofdstuk 9 en 10). In Hoofdstuk 9 is de informatie die per land verzameld is, naast elkaar gezet en zijn er modellen voor gezondheidszorg buiten kantooruren beschreven. In Hoofdstuk 10 is er kritisch gekeken naar de methoden die gebruikt zijn in dit onderzoek en zijn er aanbevelingen gedaan voor verder onderzoek.

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Appendix 1:

EMOCA:
European study on use and supply of out-of-hours health care.

Summary of the proposal:

The aim of the study is to describe the organisation and utilisation of acute health care outside normal office hours in Europe and to clarify the interplay between the organisation and supply of services, on the one hand, and decisions of households on seeking careand using services on the other hand. The research consists of three major elements:
-studies in the 15 countries on the organisation and financing of the whole spectrum of out of hours health services and current developments
• follow-up studies in 5 of these countries on the demand-side on needs, evaluation and requests for out of hours services and patient's decision process in seeking this care
• follow-up studies in (the same) 5 countries on the supply-side of out-of-hours care and on the actual utilisation of services, the role of various providers and their 'production' and responses to specific patient demand for care.
The organisation study will be carried out uniformly in each country by desk research, personal interviews with key persons and surveys among samples of groups of providers of out of hours care. The demand-side study will consist of (household)surveys and subsequent personal interviews with individuals who have been selected on the basis of the health problems and decisions expressed in the survey. The method for the supply-side study is a contact registration with samples of various providers of out-of-hours care during 7 consecutive days and a short background questionnaire. The organisation study covers the whole scene of out-of-hours care in the countries. Both follow-up studies in the five countries will be carried out in a few regions which have been selected on the basis of different characteristics of urbanisation, supply and organisation of services etc. Important scientific and health policy benefits are to be expected from this project. Vzariation in the process and evaluation of out-of-hours care will be related to different profiles of provision (both between and within countries). This is an important input to health policy in the European countries, where out-of-hours care currently is subject of debate. Demand is growing and the necesity and appropriateness of part of the demands is doubted. In many countries there is a need for new models for out-of-hours care in which elements of primary care and secondary care are more integrated. Results will be disseminated both to the scientific world, in papers, books and oral presentations, and to the health care field and policy makers, by means of cnferences and discussion papers.

Appendix 2:

List of experts:

Sweden

Dr. Ulla Fryksmark
National Board of Health and Welfare (Socialstyrelsen), region of South Sweden
Thursday 24-4-1997
Contact: personal contact

Dr.Christina Nerbrand
Primary care researcher, head of health centre in Lund
Monday 28-4-1997
Contact: Previous research contact NIVEL

Lillemor Cedergren
Researcher SPRI (Swedish Institute for health services development)
Tuesday 17-6-1997
Contact: NIVEL

Denmark

Dr. Jørgen Lous
Institute of Family Medicine, Research Unit for General Practice
General practitioner.
Århus
Tuesday 29-4-1997
Contact: projectleader EMOCA Denmark

M.B. Christensen
Institute of Family Medicine, Research Unit for General Practice
PhD student into inappropriate use in acute health care out of hours
Århus
Tuesday 29-4-1997 + wednesday 30-4-1997
Contact: EMOCA

United Kingdom

dr. Lesley Hallam
National Primary Care Research and Development Centre, University of Manchester.
National expert on acute health care out of hours in Engeland

Monday 12-5-1997
Contact: EMOCA

Prof. dr. Rod Shaeff
Professor Health Services Management Unit, University of Manchester; Primary care.
Friday 9-5-1997
Contact: personal contact

Prof. dr. Joan Higgins
Professor Health Services Management Unit, University of Manchester; Primary care.
Chair Manchester Health Authority
Thursday 8-5-1997
Contact: personal contact

Belgium

Prof. dr. van Lochem
Professor in General Practice.
General practitioner.
Wednesday 21-5-1997
Contact: EMOCA/NIVEL

The Netherlands

Frans van den Aartweg
Projectleader Transmural care in Velsen
Tuesday 15-7-1997
Contact: literature reference

collegues at the NIVEL

Appendix 3:

Mr/mrs
Address...

Fax: ...

17 April 1997

Emoca

Re: appointment

Dear mr/mrs...,

Thanks again for willing to take time to meet me. Hereby I confirm our meeting on the .... in .... As we agreed, I hereby send you the topics I would like to talk to you about. They concern the following:
-Current problems and developments in out of hours care in Sweden
-Organisation of provision of acute care out of hours both in primary care and at A&E departments
-Quality aspects (existence of guidelines, protocols, audits)
-Financing (Physician payment and patient fees)
-Demand issues, problems, reasons.
-Relation to the context of organisation of health care in general in your country.
At the moment I do not have a lot of information specifically on the provision of out of hours care in .... In the interview with you I would like to learn more about the specific ... situation. I would also like to ask you if you could collect some written material on out of hours care in .... (even in the language of the country).
If you have any questions I will be reachable at the NIVEL by fax and phone.
Thanks in advance!

Kind regards
NIVEL Foundation,

Monique Frijns

Appendix 4:

Interview scheme

Interviews with experts on out of hours care

As an addition to the information found on out of hours care in the selected countries in the literature, interviews will be held with experts in the field.
The respondents will be experts in the field of out of hours care as researchers or as professionals. Before the interview takes place, the respondent receives a list of aspects that will be discussed at the meeting. During the interview, notes will be made and clarification will be asked where needed. The interview will also be taped. Goal of the interview is to fill gaps in the information from the literature about out of hours care in the selected countries and to get a deeper insight to the way health care out of hours is provided and financed in the selected countries. After the interview, the interview will be written out and sent to the respondent for authorization. Also the description of the organisation and financing of out of hours care in the country that followed from the interview and the written information will be sent and asked to be checked. Additional information will be asked.

Interview schedule

Introduction
Thank the respondent for the time taken. **Introduction** of myself, NIVEL and research.
Ask for introduction of the **respondent**, ask for specific knowledge on out of hours care.
Explain definition of the study subject
Explanation of the time, structure and process of the interview.
Interview with open semi-structured questions.
First introduction of the topic and then broad questions and specifying towards the end of the topic.

What is considered 'out of hours' in health care in your country?

Current problems and developments
Ongoing debates?
Experiments going on?

Organisation of out of hours care
Who are the providers and how do they cope with out of hours?
Who is responsible for organising it? Role of politics

Points of attention:
-primary care providers
cooperatives
commercial deputising services
joint practice rotas
primary care emergency centres
triage centres
-ambulance services
-secondary care providers
Accident and Emergency departments
Primary care integrated in AEDs
In order to provide a good description per country several variables should be described:
-number of different providers (in relation to the population)
-average list-size of gps
-availability of general practitioners (working hours/out of hours),
-whether the providers of out of hours care are the same as during office hours
-whether out of hours care is mainly hospital centred or mainly community centred (primary care)

A&E:
-qualifications of staff working at AEDs (for example, special AED consultants or back up for junior doctors)

Quality aspects
Are there any systems for quality assurance in use to monitor the provision of out of hours care.
Points of attention:
- Are there any guidelines or protocols on out of hours care?
- Methods for audit?
- Measures of patient satisfaction being caried out?
- Quality indicators

Financing
How is out of hours care financed?
Points of attention:
Physician-payment
Existence of a differential fee system between office hours and after office hours.
Existence of differential fees for the actions general practitioners take upon a call out of hours.

Patient fees/reimbursements.
Direct costs for patients

Do the fees for physicians cause (perverse) incentives?
Do the fees for patients cause delays or decrease in demand?

Is the system for out of hours provision seen as cheap/expensive?
Is the system for out of hours provision seen as efficient/inefficient?
Is the system for out of hours provision seen as of high quality/low quality in terms of outcome for patients?

Demand
Points of attention:
Is there a rising demand?
Reasons?
Figures?
Problems with demand?
Change of demand? Different kinds of diseases presented?
Is there freedom of choice for patients where to go to?
Is the GP gatekeeper?
Are there any barriers for patients?
- financial
- physical

Are people in general satisfied with the provision of out of hours care?

Context of health care
How is the organisation of out of hours care imbedded in the structure of the health care system of the country?

Who have decisionmaking power on out of hours care?

End of interview
Ask the respondent if they want to go back to a certain topic or whether they want to add something. Ask for aditional information on out of hours care. Ask the respondent if it is okay to stay in touch with them. Tell them the rest of the procedure (authorization + sending the description of the country). Ask them to keep their eyes open.
If the information from the respondent was disappointing, ask them to put me in touch with other people (by fax or email). Thank the respondent for the time taken.

Appendix 5:

List of co-payments for patients in the county of Stockholm, Sweden

Patientavgifter 1997
Stockholms läns landsting

Besök hos distriktsläkare/husläkare	*120 SEK*
Besök hos gynekolog, barnläkare, geriatriker	120 SEK
Första besök hos specialistläkare med remiss från husläkare	110 SEK
Övriga besök hos specialistläkare samt Cityakuten och Närsjukhuset Sabbatsberg	230 SEK
Besök av sjukhusets akutmottagning	*300 SEK*
Extra avgift när läkaren gör hembesök	80 SEK
Läkarkonsultation per telefon om läkaren skriver recept	40 SEK
Första besök hos sjukgymnast i en planerad behandlingsserie	120 SEK
Besök för sjukvårande behandling hos annan vårdgivare än läkare	60 SEK
Egenavgiften vid sjukresa per enkel resa	50 SEK
Besök hos distriksköterska, MVC och BVC	0 SEK

Appendix 6:

List of Abbreviations

AED	Accident and Emergency Department
A&E	Accident and Emergency
AWBZ	Algemene Wet Bijzondere Ziektekosten
CPA	Centrale post ambulancevervoer
EMOCA	European study on use and supply of out-of-hours health care
GP	General Practitioner
Hagro	Huisartsengroep
HMO	Health Maintenace Organization
LHV	Landelijke Huisartsen Vereniging
NHS	National Health Service
NIVEL	Nederlands instituut voor onderzoek van de gezondheidszorg Netherlands institute of primary health care
SEK	Swedish Crowns
TP	European Study on Task Profiles of General Practitioners