9 Summary and general discussion

9.1 Introduction

Differences in health care utilisation between ethnic minorities and the indigenous population have frequently been reported (Smaje and Grand, 1997; Stronks et al., 2001). Adequate use of health care services is an important precondition for health. In the context of the growing societal importance of migration, it is important to examine whether ethnic differences in utilisation are an indication of problems in accessibility of health care services, or whether they reflect differences in need. Earlier studies in the Netherlands tended to be descriptive and small-scale (Droomers et al., 2003). Our study aims to contribute to the scientific knowledge about ethnic differences in health care utilisation by means of a comprehensive, nationwide, theory driven approach including a wide range of possible determinants. In addition to descriptive information concerning the existence of ethnic differences in use, an attempt at theoretical progress is made by considering possible explanations for differences in use and the relative importance of the various determinants. Moreover, by comparing two methods of data collection and systematically reviewing the international literature, we aspire to progress from a methodological perspective. In addition to aiming at scientific relevance, our study tried to address practical relevance for general practitioners by determining important aspects for quality improvement. First, a short recapitulation of the main findings of the empirical chapters will be presented. After this summary the study is evaluated at a more transcending level, both from a theoretical and methodological perspective. Before ending with a final conclusion, this chapter addresses some important remaining research questions and implications for general practice and health care policy.

9.2 Ethnic differences in health care utilisation

Our study aimed to examine the differences in health care utilisation between ethnic minorities and the indigenous Dutch population. Use of care was investigated by comparing the number of users of specific types of care among ethnic groups rather than comparing the frequency of use. Chapters four and five show that differences in health care utilisation between the minority groups and the indigenous population appear to depend on the ethnic group and the type of health care service. With respect to the use of

primary medical care our systematic review (chapter 2) shows that no overall consistent pattern could be distinguished with respect to ethnic minority groups. Generally, it does not seem the case that minority groups make an excessive demand upon the primary care system nor that their access is insufficient.

Based on the uncorrected data about health care use, we found that in general, more people from ethnic minority groups reported having contacted their GP, medical specialist and psycho-social caregivers such as social workers, psychologists and the regional outpatient mental health services (RIAGG) than was the case in the Dutch reference group. Ethnic minority groups did not deviate significantly from the indigenous population regarding hospital admissions. On the contrary, use of physiotherapy, prescribed medication and homecare was generally lower among minority groups than in the indigenous population.

9.3 Determinants of ethnic differences in health care utilisation

In addition to the assessment of ethnic differences in health care use, special attention was paid in chapters three, four, five and seven to the question as to what extent these differences can be explained by socio-economic variables, health status, acculturation and study characteristics.

Socio-demographic determinants and health status

In our study health status, age, gender, level of urbanisation and socio-economic position were taken into account as possible variables explaining the relationship between ethnicity and use of health care. In general, when differences in the use of health care services between minority groups and the indigenous population were found, these decreased after adjusting for socio-demographic characteristics and health status (chapters four and five). Nevertheless, in keeping with previous research, ethnic differences in health care utilisation could only partly be attributed to differences in these variables. As mentioned earlier, ethnic minority groups visited their GP more often than the Dutch population. Surprisingly, these differences were more pronounced among people with good self-rated health (chapter three). Ethnic minority groups in good health visited their GP more often than the

indigenous Dutch population. Poor self-rated health also remained an independent factor for contacting the GP. When rating health as poor, only Surinamese people visit their GP more often.

Research on health care utilisation by ethnic minorities has mostly been performed within the context of large cities. In chapter four the focus was specifically on the extent to which ethnic differences in utilisation were correlated to the level of urbanisation of the neighbourhood. We found that the differences in utilisation showed very little correlation with urbanisation level. Differences in utilisation between the four minority groups and the indigenous population were not concentrated within the cities, and seemed therefore to be independent of problems inherent to large cities. This implies that policy addressing ethnic differences in health care use demands a broader approach than the context of large cities alone. However, given the relatively large number of people with an ethnic minority background living in urban communities, the monitoring of health care utilisation by ethnic minorities within the context of cities remains an important policy instrument.

An analysis of single services does not produce any distinction between people who contact their GP only and those who also use additional services. Therefore, in addition to single service utilisation, patterns of use are assessed in chapter 5. Patterns refer to the use of different sources of care during the same period. The most frequently occurring exclusive combinations of service use appeared to be centred on the following four types of services:

- GP care only;
- outpatient specialist care (contact with the GP and outpatient specialist or hospital admission);
- mental health care (contact with the GP and ambulatory mental health care and possibly other services);
- allied health professional care (contact with the GP, outpatient specialist/hospital admission and physiotherapist or other allied health professional care).

After adjustment for socio-demographic variables, urbanisation and health status, differences in utilisation patterns were particularly marked for people with a Moroccan, Turkish or Antillean background. All minority groups were in general found to contact the GP more frequently than the indig-

enous population, but figures concerning the utilisation of only GP services revealed that this pattern was least apparent for Antilleans. Moreover, Moroccans tended to make less use of specific combinations of health care services than the other groups. The general picture that emerged from our study indicates that, except for the Surinamese, the likelihood of contact with any professional health care services at all was equal among migrants and the indigenous population. Compared to the other groups, the Surinamese were the least likely not to contact any professional health care service. The analysis of patterns of utilisation proved to supply useful information concerning the relationship between ethnicity and use of health care services in addition to figures for single service use only. Support was found for the assumption of Pescosolido (1992) that patterns of utilisation need to be considered in order to provide more insight into the nature of differences in use of care (Pescosolido, 1992). Furthermore, no evidence was found that the gatekeeping role of the GP in the Netherlands functions less effectively among the migrant groups as compared to the indigenous population.

Cultural determinants

As mentioned earlier, ethnic differences in health care use could only partly be explained by differences in health status and socio-demographic variables. The remaining unexplained variance is usually attributed to the existence of cultural differences between minority groups and the indigenous population. In chapter seven we examined the relationship between cultural determinants and contact with GPs, medical specialists and use of prescription medication by analysing culture-bound aspects that could either promote or hinder use of care. When cultural factors are included in health care research, the focus is usually on acculturation. Acculturation refers to the process by which a group becomes socialised into a new culture by adopting its language, values and behaviour (Chesney et al., 1982; Bhopal et al., 1998). It is increasingly accepted that acculturation is not a linear process, with individuals ranging from unacculturated to assimilated, but rather a multidimensional process that includes one's orientation to both one's own ethnic culture and the host society. Given the fact that our study was cross-sectional, clearly the process characteristics of acculturation could not be assessed. To facilitate readability we will use the term acculturation, when we are actually referring to the cultural distance

between minority groups and the indigenous Dutch population at a given moment in time. The basic hypothesis driving our analysis was the expectation that as minority groups become more acculturated, their health care use becomes more similar to that of the indigenous population. Due to the fact that we included four minority groups it was also possible to study whether acculturation has specific features for these separately. To justify the multi-dimensional character of acculturation, measurements in a very broad sense were applied. Attention was paid to the acquisition of the content of cultural beliefs and values, informal social contacts with the indigenous population, use and proficiency of the host language and perceived ethnic identity, in addition to more proxy indicators such as length of residence and generational status. The results showed that the minority groups were not homogeneous with respect to acculturation. As could be anticipated based on their historical background with the Netherlands, the Surinamese and Antilleans were in general comparable with respect to acculturation. The same applied to Moroccans and Turks. With respect to the relationship between acculturation and the utilisation of health care services, the results showed that the relationship between ethnic background and health care use still holds even when differences in acculturation are taken into account in addition to socio-demographic and health status variables. The most important indicator of acculturation in the explanation of differences in health care use was generational status (dichotomised into first generation and second generation). No support was found for the expectation that according as people had been living longer in the Netherlands, differences in health care use between minority groups and the indigenous population would diminish. At the same time, the indicators of acculturation seemed to function differently with respect to the type of service used and did not seem homogeneous among the minority groups. This was especially found for GP care. For instance, more Surinamese from the first generation contacted GPs than the indigenous population, whereas this relationship was not found for the other minority groups. The opposite relationship was found for specialist care. Second-generation ethnic minorities contacted medical specialists more often than the first generation. Surprisingly, the relationship between patient-related variables and use of health care was not affected by taking indicators of acculturation into account.

Study characteristics

In chapter two the international literature concerning primary health care use in western countries was reviewed. It became clear that the results of the various studies showed little agreement about the general extent and direction of ethnic differences in use and the relative importance of the explaining variables. This makes it difficult to draw general conclusions and improve theoretical insights. In order to address this issue in more detail, our review investigated the extent to which ethnic differences in primary care use were found across countries and minority groups and were related to the methodological quality and study characteristics such as sample size and adjustment for confounders in the analyses. The results showed that according as studies scored higher for methodological quality, the likelihood of reporting significant differences increased, whereas adjustment for confounders (especially health status) and taking into account possible cultural differences and language problems during data collection were negatively related to significant differences reported in the studies. Studies performed in the US were more likely to report significant differences in utilisation between ethnic groups than studies in the other countries. This suggests that the results from US studies on ethnic differences in health care use are not reliable predictors for the European or Canadian situation. As the strength of the primary care system in the US is found to be substantially weaker than in the other countries, our results suggest an association between ethnic differences in use and a country's orientation towards primary care. Our review clearly underlines the need for careful design in studies on ethnic differences in health care use.

As our review showed that ethnic differences are related to methodological quality and study characteristics, the influence of the method of data collection was examined in greater detail. Little is known about the concordance between different methods of data collection among ethnic minorities. Frequently, data obtained from different sources do not concur. In the literature, this finding is often perceived to be a general validity issue and in the case of research among minority groups more specifically as a cross-cultural validity issue. In chapter eight we investigated to which extent ethnic differences between self-reported data and data based on electronic medical records (EMR) from GPs might be a validity issue or reflect lower compliance with regard to prescribed medication among minority groups. The main outcome measures focussed on the prescribing rate based on the

EMRs of GPs, the self-reported receipt of prescriptions and the actual use of these. Our study showed that the pattern of ethnic differences in receipt and use of prescription medication depended on whether self-reported data or EMR data were used. Ethnic differences based on self-reports were not consistently reflected in EMR data. The relatively high EMR prescription rate among minority groups was, especially for Turks and Moroccans, not reflected in a high self-reported use of prescriptions. Therefore, ethnic differences between self-reported data and EMR data are not only a cross-cultural validity issue. At least for Moroccans and Turks, compliance with the prescribed medication by the GP was suggested not to be optimal.

9.4 Ethnic differences in perceived quality of care

Although it appears that actual access to GPs by ethnic minorities is not problematic, this conclusion cannot automatically be generalised to the quality of care minority groups receive. Therefore, in chapter seven we aimed to explore the differences in perceived quality of care between ethnic minorities and the indigenous Dutch population with respect to competence, personal treatment, communication and information and continuity. These aspects of the quality of care were examined in terms of importance and performance. Performance refers to the actual experience with a health care service, whereas importance relates to the fact that patients perceive some features of services to be more significant than others. Subsequently, possible differences were related to patient characteristics and to supply characteristics. An instrument that proved to be a useful measure of user perception of quality of care is the QUOTE (QUality Of care Through the patients Eyes). Because no valid, reliable instrument existed to measure the quality of GP care among ethnic minorities, the generic QUOTE questionnaire was adapted for use among this specific subpopulation. Our results showed that the key aspects of good quality GP care underlined by all groups, were attitude-related aspects of health care provision. For instance the fact that a GP should take the patient seriously was consistently valued as highly important. This is seen as more important than service aspects, such as having own-language leaflets. However, the language-related aspects were valued higher among people with relatively low use and proficiency in the Dutch language. Minority groups did not systematically differ in the perceived performance of their GP. No

indications were found that GPs who are used to managing a multicultural patient group provide a higher standard of care in the eyes of the patients.

9.5 Limitations

After addressing the main findings, the chief limitations of our study have to be put forward. First, when interpreting the results it should be borne in mind that the findings relate only to adults aged 18 and older and that only people from the four largest ethnic minority groups were included in the review. Given the variation in utilisation rates between ethnic groups in our study, the generalisability to other minority groups and health care use among children remains unclear.

Non-response is a common problem in research among minority groups. There is a possibility that for instance the relatively more acculturated persons from ethnic minority groups participated in the survey, and that those who are less familiar with the health services did not take part.

Another important limitation is that comparison between the indigenous population and ethnic minorities may be hampered by the lack of cross-culturally validated questionnaires. Hence, the extent to which our measurements were able to capture the intended concepts might be questioned. Although there are indications that self-reporting yields a valid estimate of ethnic differences in health care use, caution is advised in interpreting these differences (Reijneveld and Stronks, 2001; Meloen and Veenman, 1990). In order to minimise distortion, the questionnaires were translated and bi-lingual interviewers deployed if necessary. Moreover, a pilot was conducted at the start of the study to establish the extent to which the questionnaire was understood by the minority groups and was related to their cultural background. Perceived health and perceived quality of care were measured by instruments specifically developed for research among Turkish and Moroccan respondents.

Our study was also limited by the fact that it was beyond its scope to distinguish reasons for health care use. Health care use and its determinants are likely to depend on whether care is needed for physical problems, mental health problems, serious illnesses or minor complaints (Alberts, 1998). For instance, it may be presumed that ethnic differences in utilisation rates for mental health problems will show a different pattern than for physical problems, as research suggests that cultural factors may possibly

play a role in a reluctance to consult for psychosocial problems. Some minority groups are found to have a tendency to somatise psychiatric problems, which in turn may even be an explanation for the higher contact rate with the general practitioner (Yu Es and Cypress, 1982).
Furthermore, it is not evident that using the indigenous population levels of use provides a socially optimal benchmark (Weinick et al., 2000). It is possible that lower levels of use among the indigenous population represent under-utilisation compared to a healthy optimum.

9.6 Recommendations for future research

Our results suggest that the likelihood of using a specific type of medical care is different among ethnic groups. Our study mainly focused on the possible explanation for these differences between ethnic groups and the indigenous Dutch population. However, questions remain about the heterogeneity within ethnic groups. Nevertheless, our analyses concerning acculturation suggest that determinants of health care utilisation may function differently in certain ethnic groups than in others. For instance, generational status appeared to be particularly associated with the use of GP care among the Surinamese. No accepted explanations are available for this heterogeneity within ethnic groups. Future research should examine both the within- and the between-group variation to determine to which extent variance reflects true ethnic differences or is caused by heterogeneity within groups (LaVeist, 1994). This issue is closely related to the well-known problem in defining ethnic groups (Smaje and Grand, 1997). The comparison between and within ethnic groups implies valid conceptualisation, measurement and definition. In our study ethnicity was based on the definition of Statistics Netherlands using the country of birth of a person and his or her parents. Internationally, this definition is not commonly used. Statistical offices in other countries use nationality (Germany, France and Belgium), country of birth (Sweden), or own perception (UK). The Dutch definition is rather broad, resulting in a relatively large population of ethnic minorities (CBS, 2005). The large variation in the international operationalisation of ethnicity complicates the comparability of research results. In order to improve the interpretation of the results concerning ethnic differences in health care utilisation, the appropriateness of assignment to ethnic groups needs to be investigated. Research on methods

for ethnic classification should therefore be given a higher priority both nationally and internationally, allowing for ethnicity's complex and fluid nature (Bhopal, 1997).

Our study underlined the need for careful design in survey-based studies concerning ethnic differences in health care use. In line with research in this field, the importance of taking cultural differences and language problems into account is stressed (Warnecke et al., 1997; McGraw et al., 1992; Hunt and Bhopal, 2003). Nevertheless, few validated instruments for application among minority groups are available, leaving the question concerning the validity and reliability of the results unanswered. For instance, the indication that the use of a single-item question on self-rated health might be not valid for comparing the indigenous Dutch population with first generation Turks and Moroccans supports the need for cross-cultural validation of questionnaires (Agyemang et al., 2006). In our study health status was addressed by a combination of a single-item question on self-rated health and the number of chronic conditions. The number of chronic conditions was estimated using a checklist of chronic conditions from the health interview studies conducted by Statistics Netherlands (Van den Berg and Van der Wulp, 1999) . Relatively little research has been conducted to address and improve the cross-cultural development of questionnaires, standardisation of survey items and practical implementation. Likewise, the cross-cultural validity of different methods of data collection receives little research attention. Our results suggest that the discordance between self-reports and data retrieved from electronic medical records concerning the use of prescription medication cannot be totally attributed to cross cultural validity-related explanations, such as propensity to answer in a particular way. The discordance between both methods of data collection might therefore reflect an actual difference in the receipt and use of prescriptions. Future research examining possible mechanisms to explain the level of agreement between different methods of data collection concerning health care utilisation may possibly provide more insight into the cross-cultural validity of different methods of data collection. Related to the validity issue, the design of studies will also inevitably have an effect on the response rate among minority groups. For instance, ethnic matching between respondents and interviewers will, at least for some groups, have a positive effect on the response rate. In our study positive results from ethnic matching were found for Moroccans, whereas for Antilleans the response rate increased once

interviewers were not from an Antillean background. These are important issues to consider, as the low response rate among minority groups is a common problem in research. As non-response might introduce selectivity to the results and complicate the interpretation, researchers need to address possibilities of boosting the response rate among minority groups (CBS, 2005). This starts with proper analysis and reporting of the non-response. A careful examination of the causes for non-response should guide the development of approaches to enhance the response, while minimising the chance of selectivity at the same time. As poor reachability was a frequent problem in our study and many others, approaches could focus on this aspect. Increasing the contact frequency and lengthening the field work are costly, but promising, effective means to increase the response rate among subgroups (CBS, 2005).

Based on the cross-sectional design of our study, the question concerning the underlying mechanism explaining the effect of ethnic background on health care use has not been answered. Longitudinal research will be necessary to help further disentangle the correlation between ethnic background, and health care use. It may be that the propensity to use a specific type of medical care is different in ethnic groups. For instance, it is unclear why Moroccans in general tend to make less use of health care than the other three minority groups. Furthermore, it may be that determinants function differently in certain ethnic groups than others. In particular, the question remains as to whether health care utilisation by ethnic minority groups as well as the indigenous population is adequate. In addition to establishing the extent to which health care use by ethnic minorities is adequate, research is also needed on the adequacy of care given to ethnic minority patients. Communication difficulties and cultural impediments are major sources of misunderstanding and may have consequences for the effectiveness of the selected treatment and subsequent adherence (Baker, 1996; Cecil and Killeen, 1997; Centraal Bureau voor de Statistiek, 1991).

9.7 Implications for general practice

By examining ethnic differences in health care utilisation and perceived quality of care our study provides tools that may possibly improve health care deliverance to ethnic minority groups. In order to provide good accessi-

bility and quality of care for minority groups, the needs and wishes of these groups need to be addressed. Our findings indicate that attitude-related aspects of health care provision were perceived to be the key aspects of good quality of GP care, as underlined by all groups. Importance was especially attached to the aspect that a GP should take the patient seriously. Furthermore, the recognition by GPs that problems might be different among ethnic minority groups and interest in a patient's cultural background emerged as important aspects for quality improvement. This underlines the need for GPs to pay attention to fostering relationships and improving communication with ethnic minority patients (Ferguson and Candib, 2002). Awareness of differences in health risks and cultural views concerning health and illness between ethnic groups are essential with respect to this issue (Klazinga, 2000). The recognition of the conceptual distinction between disease and illness is relevant. Disease refers to the Western paradigm often defined as the malfunctioning of biological and psycho-physiological processes in the individual; whereas illness represents personal, interpersonal, and cultural reactions to disease or discomfort (Anderson, 1986). Minority groups often confer specific meanings on illness. The experience of illness is embedded in a complex cultural, family and social nexus (Anderson, 1986). The health beliefs of minority patients are often not concordant with those of Western health workers, hence the risk of misunderstanding. It can be argued that health care outcomes in terms of compliance and satisfaction are directly related to the degree of cognitive disparity between the explanatory models of practitioners and patient as well as the effectiveness of clinical communication (Van Wieringen et al., 2002). Our findings give rise to the hypothesis that compliance concerning prescription medication is lower among minority groups as compared to the indigenous population. It is likely that both patient compliance and the efficiency of prescribing patterns among GPs can be enhanced by greater attention to cultural differences in health beliefs and attitudes.

In addition to structural factors such as accessibility by phone and the arrangement of an appointment within 24 hours, greater emphasis on language-related aspects is called for. This would provide considerable scope for quality improvement. This was especially found to be the case among Moroccans and Turks. Minority groups indicated that quality improvement could be expected from the provision of an interpreter and information in their own language. The literature also upholds the recom-

mendation for professional interpreters to bridge the gaps in access experienced by patients with lower proficiency in the host country language (Ferguson and Candib, 2002). One might question whether culture-specific education is a good solution for language and cultural barriers to care, arguing that it could exacerbate the isolation of minority groups and reduce the incentive to integrate. Nevertheless, provided that is conducted properly and directed at the correct target group, health education in patients' own language is thought to contribute significantly to health status, reducing isolation and encouraging participation in society (Van Haastrecht and Singels, 2000; Bruijnzeels et al., 1999). Moreover, our results showed a higher use of GP-care by migrants in general, and more specifically by those in good health. This may be an indication for inadequate use of care and also suggests the need for culture-specific health education of these groups in the area of self-care.

9.8 Policy implications

Given the fact that more than 60% of the children born in the large cities now have a minority background, attention for minority groups in health care policy is justified (Stronks, 2000). The idea that the second or third generation will become more similar to the indigenous Dutch population by convergence in health status and health behaviour and that therefore the attention for possible problems in accessibility and quality of care among minority groups will be redundant in the near future can be refuted by the fact that in 2015 two thirds of the minority population will still belong to the first generation. Even though one can debate about the time period in which convergence in health status and health behaviour may become manifest this is not likely to happen in the short term (Stronks, 2000). With respect to health care policy our findings show that ethnic differences in health care utilisation were not concentrated within the cities, and seem therefore to be independent of problems inherent to large cities. This implies that policy addressing ethnic differences in health care use demands a broader approach than the context of large cities alone. Furthermore, the relative importance of attitude-related aspects for the quality of care stresses the significance of sufficient medical knowledge and competence and an open attitude as far as cultural differences are concerned. Since the health beliefs of western physicians are shaped by both their own cultural background

and their biomedical and clinical training, attention for cultural factors in health behaviour should be an essential part of medical education (Van Wieringen et al., 2002; Schulpen, 2000). However, focus on this issue is often fundamentally lacking both in the Netherlands and in other western countries (Schulpen, 2000; Loudon et al., 1999). Moreover, due regard for ethnic differences in the recommendations for practice guidelines needs to be ensured (Manna et al., 2003; Assendelft, 2003).

9.9 Conclusion

In conclusion, our study confirmed the existence of ethnic differences in health care utilisation. These differences strongly depend on the type of health care service and vary considerably between the four minority groups. Our research findings do not indicate the extent to which the ethnic differences in health care use represent an undesirable situation. Further study is required in order to shed light on the mechanisms underlying these differences. In particular, the question needs to be addressed as to whether ethnic differences in health care utilisation put minority groups at risk for poor health status. As poor health status will hinder participation in society, this issue clearly needs to be addressed. By reducing possible inequity in health, health care can contribute to the integration of minority groups in the Netherlands. Although it is possible that lower levels of use may reflect more efficient use of care (rather than lower access) and higher levels of use may reflect overutilisation of services (rather than greater access), our results show little evidence of an overall inequity in the receipt of health care by minority groups. However, in the light of the results of our study, it is important to be aware of the differences between the various ethnic groups. Our results suggest that there are systematic differences between ethnic groups which may indicate some problems of access to health services, reinforcing the need for continuing attention to ethnic patterns in health care utilisation. For instance, it is unclear why Moroccans in general tend to make less use of health care than the other three minority groups. Therefore, the importance of including ethnic background as an entity in health care research, with specific attention for the heterogeneity among minority groups, is underlined by our study.