Summary
Chapter 1: Introduction
Students who graduate from medical school usually work in a practice for some years before they actually start their postgraduate training, so their final choice of a career is postponed for different reasons for a few years. However, mainly because there is now a closer relationship between undergraduate and postgraduate training, they have to make an earlier decision as to what their final medical career will be. Little is known about what actually influences the career choice of students and recent graduates in the Netherlands, or how medical schools can improve the way in which they help their students to make an adequate career choice. The aim of this thesis was to obtain more insight into factors that influence the career choice of Dutch medical students and recent graduates, and mainly those factors which play a role during medical education and could be influenced by the medical school or practicing physicians. The focus was on student characteristics, clerkships, perception of specialty characteristics, and characteristics of the specialty related to the career preference and career choice, respectively, of Dutch medical students and recent graduates. We were specifically interested in factors related to the choice of a career in public health, because very few medical graduates start their career in this specialty, and it is not known whether this low level of preference is already prevalent in medical school.

Chapter 2: Literature review
Chapter 2 presents a review of the literature that was conducted to identify factors that were associated with the choice for a specialty. The focus was on recently graduated physicians in European countries. Most of the studies that were identified were of good quality. Enthusiasm, self-appraisal of skills, human interest, and domestic circumstances were the main factors associated with the choice for a medical specialisation. Female doctors paid a great deal of attention to reasonable working hours and part-time jobs. They were also less certain about their career choice, and made their choice later than men. Most graduates with a preference for general practice when they qualified as a medical doctor achieved their aim. Women who preferred a clinical specialisation had less opportunities than men to achieve their career of their choice.
Chapter 3: Factors influencing the choice of a career
Chapter 3 describes the career choice of recent Dutch graduates and the factors that influenced this choice. Graduates from two Dutch medical schools received a written questionnaire. Approximately half of these graduates were engaged in further resident training, 70% in a clinical specialty, 20% in general practice, 10% in public health. The other half of the graduates were not engaged in further resident training: 80% worked as a medical doctor in a clinical specialty, 1% in general practice, 15% in public health and 5% in another occupation. Most of the graduates were working full-time, but would prefer to work less hours in the future. Full-time availability was the most important prerequisite for employment as a clinical resident and working experience after graduation was also important to find work as a general practice or public health resident. For clinical and general practice residents, enthusiasm for their specific field was the most important factor in their choice of a career. For public health residents it was working according to office hours, especially for women.

Chapter 4: Student characteristics and career choice
In Chapter 4 we investigated the association between biographical and academic achievement characteristics, and preference for a medical specialty among students at different stages in medical school. A written questionnaire was completed by medical students from two Dutch medical schools. Five medical specialties were selected for analysis (general practice, internal medicine, surgery, paediatrics and psychiatry). Biographical and academic achievement characteristics were used to construct a prognostic model related to the preference for a medical career. We found that medical background of the parents and gender of the student were positively associated with a preference for a career, especially for general practice. Work experience in health care, personal experience with medical care, and academic achievement played a minor role in the preference for a specific career.

Chapter 5: Clerkships and appreciation of the medical profession
Chapter 5 describes the influence of clerkships on the students’ appreciation of general characteristics of the medical profession. A similar written questionnaire was completed by medical students at the
start and finish of their two-year clerkships in a Dutch medical school. We found that the appreciation of the required knowledge and skills and of medical activities decreased during the clerkships, but there were no changes in the appreciation of respective patient categories, with type of complaints, or the content of the work during the clerkships. Approximately half of the students maintained the same level of appreciation during their clerkships. In the other half of the students there was an increase or a decrease in appreciation in the four groups during the clerkships; slightly more often a decrease than an increase.

Chapter 6: Career choice of a career in public health specialties
In Chapter 6 we investigated the development of interest in a career in a public health specialty during medical school. A written questionnaire was completed by students in two subsequent years in one Dutch medical school. Three public health specialties were compared with the least popular medical specialty, the most popular specialty, and average interest in all specialties. The interest in a career in occupational health and social insurance health was low throughout medical school. Almost 15% of the students were very interested in youth health care in the first year of medical school, which was over twice as many compared to the average specialty. However, this percentage decreased dramatically during medical school. At graduation, the level of interest was below the average all three public health specialties.

Chapter 7: Characteristics of the youth health care specialty
Chapter 7 describes the preference for and perception of a career in youth health care, compared to the actual daily practice of youth health care physicians. Medical students from two Dutch medical schools, and collaborating practicing youth health care physicians completed a written questionnaire. The students indicated their preference for and knowledge about the profession of youth health care physician, and assessed the applicability of a list of characteristics of the medical profession to that of youth health care physician. Practicing youth health care physicians were asked how much these characteristics applied to their daily practice.
Of all the students, 7% appeared to be interested in a career as a youth health care physician, and 4% stated they had very good knowledge about the profession of youth health care physician; these were mainly female students and first-year students. The correctness of their perception of the profession was scarcely influenced by their preference for a career in that profession, and virtually not by their reported knowledge of the profession or by their experience of a clerkship in that profession. Those who mentioned they had knowledge about the profession of youth health care physician tended to have a higher preference for a career in this specialty, but this subjective knowledge did not correlate with what they really know about the profession.

Chapter 8: General discussion
Our study shows that many factors are related to the career choice of medical students and recent graduates. The possibility of working part-time is still a main factor in the choice of a medical specialty, according to students and graduates, and this will probably change the manpower actually employed in different specialties in the Netherlands in the coming years. The preference for a career in public health specialties during medical school is low, and the preference for youth health care, in particular, declines dramatically after the first year of medical school. More attention should be paid to increasing the attractiveness of the profession, and to student appreciation of daily medical practice in order to increase the number of students who choose a career in public health, and especially youth health care.

Student characteristics, characteristics of the medical specialty and the perceived perception of students influence the career preference of medical students in the Netherlands. In our opinion, medical schools should not only be interested in the results achieved by their students, but should also have a societal responsibility for an adequate manpower planning in health care. The inclusion of variables related to the choice of a medical specialty in the selection procedures of medical schools can help to solve to this problem. Medical education is constantly changing, so a closer relationship between undergraduate and postgraduate training is needed. This will make it important for students and graduates to make an adequate career choice, and this implies that good career advice is needed at an early stage, and should already start during medical school.
Finally, adequate monitoring of students and graduates with regard to their career preference and choice, respectively, is needed to achieve better workforce planning and career advice. More longitudinal studies are therefore recommended.