

## SUMMARY

Primary care has an important role in the healthcare system (Walley 2008). In many countries primary care is provided by general practitioners (GPs) – also called family physicians. It has been found that strong primary care is associated with better health outcomes in the population and with lower costs of healthcare. The impact of primary care is determined by its place in the health system (e.g. gate keeping to hospital care) and by the performance of primary care practices and practitioners. The studies presented in this thesis mainly focus on the primary care practices and practitioners. The central aim of these studies was to provide knowledge, which helps to tailor interventions for improving primary care to the needs and problems of these practices and practitioners.

Four specific characteristics of primary care delivery were selected as the main focus of the studies: size of a practice in terms of patients and health professionals; structuring of care delivery for patients with chronic diseases; participation of physicians in quality circles; and active involvement of the patient in primary care. The main outcomes in these studies were: perceived accessibility of the practice; physician workload; quality of medication prescribing; and degree of patient enablement. Most studies in this thesis were characterized by a focus on the primary care practice; a generic focus (not focused on specific diseases); use of structured measures, large data-bases and quantitative analysis; and inclusion of a range of regions and countries.

Patients assessed the accessibility of primary care practice more positively in practices with fewer health professionals (doctors and nurses). This was found in international data from 1998 (Europep study) and replicated in international from 2004 (EPA study). Patients seem to prefer smaller practices. In addition, high physician workload (more working hours per week) was associated with less positive assessments of the accessibility of the practice by patients. No systematic differences were found between countries regarding perceived accessibility of general practice.

Physician workload (hours per 1000 patients) decreased with increasing number of patients registered in the practice. This effect was independent of disease management provided or implementation of structured chronic care. This was found in a large sample of practices in The Netherlands and in an international sample of primary care practices (EPA study). This finding may imply higher efficiency of larger practices.

Quality circles (educational group meetings of physicians combined with feedback on professional performance) had moderate effects on prescribing patterns of German general practitioners. These effects were found in large databases, including millions of prescriptions (AQUA study), so the clinical and economic impact of these effects were substantial. Groups with more positive views of

performance feedback, evidence-based indicators and price comparisons showed more change of prescribing. Quality circles contribute positively to the quality and efficiency of prescribing.

Active involvement of elderly patients in their consultations with general practitioners was examined in an international study (Improve study). Patients' enablement (ability to cope with illness) was highest in patients who reported most positive evaluations of involvement, particularly if they had a high preference for involvement. A small study in The Netherlands found that patients' enablement was lower in patients who had received more structured chronic care. It can be concluded that factors related to patients' enablement have not been fully clarified.

We conclude that practice size (in terms of numbers of patients or health professionals) is an important characteristic of primary care practices, which should be taken into account in programs to improve primary care. A balance has to be found between the lowering impact of larger practice size on physician workload and on the patient perceived accessibility of the practice.

Quality circles were found to have moderate but clinically relevant effects on prescribing patterns of primary care practitioners. Specific characteristics of the participating physicians were found to be related to higher impact. Involving patients in decisions about their treatment seems to contribute to their enablement – ability to cope with illness-, but structured chronic care was found to have potentially negative impact on patient enablement.