

Marjukka Mäkelä, Barbara Booth and Richard Roberts (Eds.)

Family Doctors' Journey to Quality

The WONCA Working Party on Quality in Family Medicine



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Foreword

A wise coach once said, "Feedback is the food of champions". Every sportsman wants and needs to know: "How am I going?" "What are my weaknesses and how can I eliminate them?" and "What are my strengths and how can I build on them?" Sportsmen welcome feedback because they know it is the path to excellence.

Family Doctors' Journey to Quality is all about feedback and quality improvement. A central theme is the quality cycle: choosing the topic, collecting data on performance, reflecting on results, comparing them with a standard, and changing work processes.

In his book *Zen and the Art of Motorcycle Maintenance*, Robert Pirsig makes the astute observation that 'quality is hard to measure, but you recognise it when you see it'. *Family Doctors' Journey to Quality* addresses in detail, and with great clarity, how to approach the challenging task of measuring quality, taking the reader on an absorbing journey, step by step through the essential processes. Central concepts are addressed: patient-centredness, systems theory, evidence-based medicine, lifelong reflective learning, cultural sensitivity, contextual awareness, teamwork, patient participation in quality improvement, and continuous professional development.

WONCA is proud to be associated with this outstanding publication, the work of its Working Party on Quality in Family Medicine, and commends it to all who provide care in community settings.

Wes Fabb
Chief Executive Officer

WONCA (World Organisation of Colleges, Academies and Academic Associations of General Practitioners/Family Physicians)

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Terminology

CME:	Continuing medical education
CQI:	Continuous quality improvement, encompassing the idea of planned and systematic development
EBM:	Evidence-based medicine
EQuIP:	WONCA network in Europe for Quality in Primary care
EUROPEP:	The project for European Patients Evaluating Practice, providing a patient satisfaction questionnaire in 15 languages
Family doctor:	A medical doctor with specific training in general practice or family medicine
Health care team:	The group of different health care professionals providing care together in an institution or setting
IT:	Information technology
Patient:	The direct user of health care services, regardless of health status
Primary care:	Health care in a setting where people can consult professionals without referral from another professional
QI:	Quality improvement
QIFM:	The WONCA working party on Quality in Family Medicine
QuIAP:	Family doctors' Quality in the Asia Pacific network
Secondary care:	The level of health care provided usually in hospitals for ambulatory persons or inpatients, and often requiring referral from primary care
Soria Moria:	The golden castle of Nordic sagas; wanderers can see it from a distance but they never can get any closer to it, no matter how far they go
SWOT analysis:	Analysis of the Strengths and Weaknesses of an organisation, and the Opportunities and Threats it is facing
WHO:	World Health Organisation
WONCA:	World Organisation of National Colleges, Academies and Academic Associations of General Practitioners/ Family Physicians. Better known by its shorter name: World Organisation of Family Doctors



Prologue: The quality journey

Travel is a personal experience. It encompasses more than a means of transport; it is more than simply getting from one point to another. While the airline flight, sea voyage and ground transportation are important aspects of travel, so are the food, lodging, personal encounters and other unique occurrences we experience as travellers. Our expectations, cultural background, financial resources, personal interests, and elements beyond our control (such as weather or accidents) are key factors in our valuation of the journey.

Health and health care involve more than a series of therapeutic interactions; they are more than movement from illness to health. The health care journey consists of encounters with a number of professionals, personal decisions about our health behaviours, and other factors that are often beyond our control (e.g., genetics, environment). Our expectations, cultural and genetic background, financial resources, and personal preferences are key influences on our health outcomes.

Quality is not the destination; it is a never-ending journey. Quality improvement and management in primary care, as in any other field, are continuing processes instead of programs run once and then forgotten. Quality can never be fully reached in health care; it is like the Nordic saga castle of Soria Moria on our book cover. Although aspiring travellers can clearly see its towers, it is so wonderful that they somehow cannot describe or picture it. And as they climb the next mountain range, the castle hovers ever further in the air, shining golden in the distant blue hills.

This book will give the reader a background on quality development in primary care and provide practical suggestions on how to create and sustain a culture of change. It is designed as a travel guide which offers

advice on ways and means, advertisements for potential destinations, some detailed maps and stories of the experiences of fellow travellers.

We have written this book chiefly for those who are responsible for the introduction and development of quality improvement programs in primary care. This includes professional organisations and peer opinion leaders operating in family medicine. We trust that the book will also offer useful information for individual family doctors that are particularly interested in quality initiatives.

We aim to help in developing and refining quality improvement activities in many different primary care settings – from small family practices to regional primary care projects or national reform agendas. We trust that it will be valuable both to family doctors in countries that have travelled some way on the quality journey and to those where family medicine is still carving out an identity as an individual discipline. Our advice and examples are drawn from our experience and knowledge of quality improvement principles and practice around the world. The examples are intended to stimulate ideas rather than given as models for best practice. Although grounded in the growing evidence base of effective quality improvement, this is not an academic treatise.

We would like to thank Jim Rourke, Roger Strasser, Chris Simpson, and Robert Hall for their thoughtful insights into the unique and challenging aspects of quality health care in a rural setting; their ideas are sprinkled throughout the book. A special debt of gratitude is owed to Richard Baker, Poul Brix, Geoff Martin, Joe Scherger, and Steve Spann who reviewed the manuscript and provided many valuable suggestions we have tried to follow in our final editing.

All members of the Quality in Family Medicine (QIFM) group participated in formulating the structure and main ideas for the book. All wrote draft texts to one or more chapters and participated in editorial discussions of several versions of the book. We have all read the chapters through our own spectacles, striving for relevance in our respective health care systems, and accepted the final result. As the convenor of the QIFM group, Richard Roberts negotiated many issues around this book with the World Organisation of Family Doctors (WONCA) and its other active groups. Marjukka Mäkelä has coordinated the process as the editor and

taken care of the final formatting of text with Barbara Booth and Richard Roberts as co-editors. Per Hjortdahl has taken and selected the travel pictures.

We hope you find this a helpful map in your journey to quality health care. Travel can be a lonely and arduous experience. We encourage you to invite others along. We found that we started as respected colleagues, and ended up as friends. It was our collective effort that made the trip possible; it was our friendship that made it worth the effort. In the writing of this book, we have enjoyed a delightful journey of discovery, insight, and renewal. We wish you a good journey.

WONCA Working Party on Quality in Family Medicine (QIFM)



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Chapter 1

The travel guide to primary care quality

If you, dear reader, are a seasoned traveller in the primary care quality world, you can use this book to compare with your own activities. If the entire map is new to you, you probably get the best use of this book by reading it first from start to finish and then returning to the parts that seem most useful to you right now. We have tried to keep technical jargon and references to a minimum in order to achieve a more conversational tone, much like two travellers sharing their experiences.

Since we aim to reach readers from around the world we need to be clear on what we mean when we use some common words. Speaking six languages as our mother tongues and coming from seven different health care cultures, we know that the meaning of many words and concepts can change depending on where they are used. We ask for your understanding if we have not used the words most familiar to you. In this book, “*family doctor*” is used to cover all medical doctors with specific training in the discipline called family medicine or general practice – family physicians and general practitioners in all languages. We refer to “*patients*” while respecting the concepts of health consumers and clients of health services.

“*Primary care*” includes the work of both family doctors and other professionals in settings where people can consult them for unselected health problems. We talk about “*secondary care*” when referring to other specialities working either in hospitals or ambulatory care, while not forgetting that in many countries family physicians run bed wards as part of primary care, or that paediatricians or other specialists can offer services without referral. We use the idea of “*health care teams*” to include

formal primary care teams or the staff team that may comprise a small private practice. And finally, we try to help readers to recognise themselves in the text by alternating the use of “*she*” and “*he*” to denote a family doctor.

Why should family doctors start this long journey? The *second chapter* orients the reader to what quality in primary health care actually is. We discuss the importance of quality management to individual family doctors as well as their organisations and consider the reasons for taking a systematic approach to quality. Our ideas build on the concepts presented in a previous book on Quality Assurance for Family Doctors, a report written by John Marwick, Richard Grol and Alexander Borgiel on behalf of the WONCA Quality Assurance Working Party in 1992. The report introduced important concepts on quality assurance and improvement in health care – for example the quality cycle and clinical practice guideline development. It described a conceptual framework for evaluating and improving the quality of health care services. We are indebted to the clear thinking, creative insights, and perseverance of the early Working Party members who blazed a path into the quality wilderness. The quality cube described by our predecessors has weathered the change of the millennium well, and lays the foundation not only for this chapter but also for the entire book.

Chapter three sketches the journey from here to quality. After a short look into the history of quality management, it helps you to assess your current primary care delivery system. You can test the everyday actions of individuals or organisations and their present quality initiatives against the national or local vision for delivering health care. We need to define where we are as the basis for mapping out future undertakings in a national, regional or local quality management plan. Examples of national and international quality work begin to whet the appetite for quality action at all levels of care. Everyday work is also supported by the fact that many national and international organisations, such as the WHO, have taken clear stand for quality improvement efforts.

Within the chapters we give many glimpses to quality improvement in action, examples taken from real life around the world. We hope these illustrate the successes, and also the pains, of bringing QI into action. Several of the examples originate from the book that the European

working party on Quality in Primary Care (EQuIP) published in 1998 in English and in 2000 in Italian.

There are many quality improvement activities going on at a fast pace in different regions of the world. Primary care quality improvement started out first in Western Europe, North America, and Australia, and now primary care professionals all over the world are beginning to catch the travel bug as well. In quality activities it is important to use appropriate technology and to choose wisely methods applicable to one's own environment. The various ways of travelling to quality – whether on wheels, by boat, or on foot – are all useful for different legs of the trip, and planning for quality travel is described in *chapter four*. The many variants of QI methods are best evaluated in action, and observing others using their unique quality methods can give new ideas and insights to take home. This chapter also discusses the basic tools of strategic planning and management and introduces the Quality cycle, supporting continuous and repeated action.

To arrive at our destination, we need to use many skills on the road. Knowledge about quality management techniques can be reached by the rocky route, trial and error, or the easier way through education. The learning process charted in *chapter five* can take different forms: formal lectures in primary medical education and vocational or residency training, or more practically oriented learning through continuing medical education and projects in one's own medical practice. New and innovative ways of learning such as mentoring, simulation, group learning techniques and distance learning are often useful for the busy primary care practitioner. Travel is more interesting and enjoyable in good company. *Chapter six* presents a selection of travel partners with whom it is safe to tackle team learning and to launch quality improvement projects with the individual patient's benefit in mind. Especially for groups of patients and in health policy decisions, quality management needs good tour guides and public transportation. Therefore we also look at the wider picture, discussing management systems, primary and secondary care interphasing, and organisational relationships.

Travellers need plenty of detailed information to find best routes and good places to eat or stay in, and they often want to compare their solutions with each other. *Chapter seven* focuses on using information,

both scientific evidence and clinical activity data, to guide practitioners rendering quality primary care. Clinical practice guidelines built on valid and updated evidence give the basis for effective work. The results need to be systematically evaluated and measured. The reader can also start thinking about quality indicators and registers from the local practice level to the national level.

Travelling costs money and effort. *Chapter eight* talks about workable strategies for funding, identifying resources for the starting and operating phases of QI budgets, and about efficient allocation of resources. Likewise, the cost effectiveness of doing QI and the future trends of health through the emergence of new management approaches are considered. Commitment to quality work is an essential resource for leaders and team members alike. Marketing, incentives and advocacy for quality in primary care are also discussed in this chapter.

The success of developing and sustaining QI activities locally or nationally will depend on solid support by government or national colleges and academies. Questions of legislation and other structural support are discussed in *chapter nine*, together with other environmental issues. Very few countries have so far legislated for quality management. In some areas, incentives and disincentives are effective: for example, encouraging results with certification - recertification schemes have been reached. Guidance by information is daily becoming easier to deliver but more difficult to find through the Internet. Primary health care in rural areas is not delivered similarly as in urban settings. Major historical developments also affect primary care: poverty, new diseases, drug abuse, work migration, and refugees.

In the final *chapter ten*, the traveller looks back. By so doing, we learn to chart the progress of our quality efforts, appraising advantages and disadvantages of the routes taken and sights seen. Are we now at the point we wanted to reach? Or is this just another stopover on our journey to the ever-further vanishing, final destination – the Soria Moria castle? How do we find the strength and courage to move on to the next trip, to keep on going? After reading this book, we wish the reader to be like we ourselves were at finishing this book: Feeling tired but good for having done the journey. We want to leave you with a sense of being permanently changed and looking at the world a little differently – and ready for your next quality journey.



Chapter 2

Why make the journey to primary care quality?

What is quality in health care?

Quality in health care can be defined in many ways. From a public health perspective, quality means offering the greatest health benefits, with the least health risks, to the greatest number of people, given the available resources. For others, quality means providing an appropriate array of services, for example both preventive and curative services, care for acute and chronic conditions, physical and mental health services. Still others evaluate quality by how well it satisfies the patients' or the purchasers' wishes.

Good quality may be interpreted along a continuum from consistently meeting minimal standards to perpetually striving for excellence. Quality can refer to the technical quality of care, such as providing the latest diagnostic tests or drugs; to qualitative and interpersonal aspects of service delivery such as meeting patient expectations; and to structural elements such as premises, staff training, and management – or to a combination of these all. At its most basic, providing good quality means *doing the right things right*. To achieve this in health care, it is necessary to see quality as a global, dynamic, and multifaceted concept.

Quality questions permeate all aspects of care. One flaw in otherwise good care may therefore decrease the quality of the entire process. The effect of constantly busy phone lines or an impolite greeting to the patient at the first point of contact colours the entire consultation.

Quality is dynamic and time-bound. What was good quality five years ago may not suffice today. This is why the continuous quality improvement approach has been developed. It is rather like keeping a house in good shape: daily chores, weekly cleaning and occasional larger repairs are needed to maintain a comfortable home. Choosing to maintain quality is a lifelong process toward perfection.

Quality is in the eye of the beholder. Patients, primary care providers (family doctors, nurses, midwives, social workers, community health workers), other clinicians (consultants, therapists) and purchasers (managers, policy-makers) have differing and legitimate perspectives on what constitutes high quality care. Meeting the needs of the customer is always an important feature of any quality effort; exceeding them is the goal of high quality. Customers, however, may overlook or take for granted important issues of technical quality that only professionals can judge.

Quality improvement in primary care

Starting the quality journey in primary care, the first items to pack along are the basic principles and concepts of quality. These have been tested in daily practice so many times that they may be taken for granted and forgotten. The evasive nature of quality stems from three sources: it is all-encompassing, dynamic, and multifaceted.

The WONCA Working Party on Quality Improvement in Family Medicine (QIFM) has defined quality in primary care. We have formulated the definition based on earlier work, adapting it to suit family doctors in all types of environments. One of the main influences has been the World Health Organisation definition, where quality of health care consists of the proper performance (according to standards) of interventions that are known to be safe, that are affordable to the society in question, and that have the ability to produce an impact on mortality, morbidity, disability, and well-being. We wanted to be shorter and more patient-oriented:

QIFM definition of quality

The best health outcomes that are possible, given available resources, and that are consistent with patient values and preferences.

The mission of the WONCA Working Party on QIFM is to support family doctors around the world in their efforts to review systematically and improve continuously the quality of health care they provide. Our mission is based on the following principles:

- To improve the quality of care, family doctors strive for the best structure, process and outcome of health care which are consistent with patient values and preferences, consistent with professional knowledge of appropriate and effective care, and are possible, given available resources.
- Quality efforts should promote accountability, and reflect a partnership between patient and health care professionals.
- Quality efforts should be explicit, systematic, a routine of daily practice, an integral aspect of basic and continuing medical education, consistent with the special role and setting of the family doctor, and applied in a positive, not punitive, manner.

In 1992, the Working Party produced a report that set out a framework to help design activities to enhance quality. They presented the Quality Cube (Figure 1, see next page) in their book *Quality Assurance for Family Doctors* (1992). This description takes into account the various participants in quality work and the levels of care.

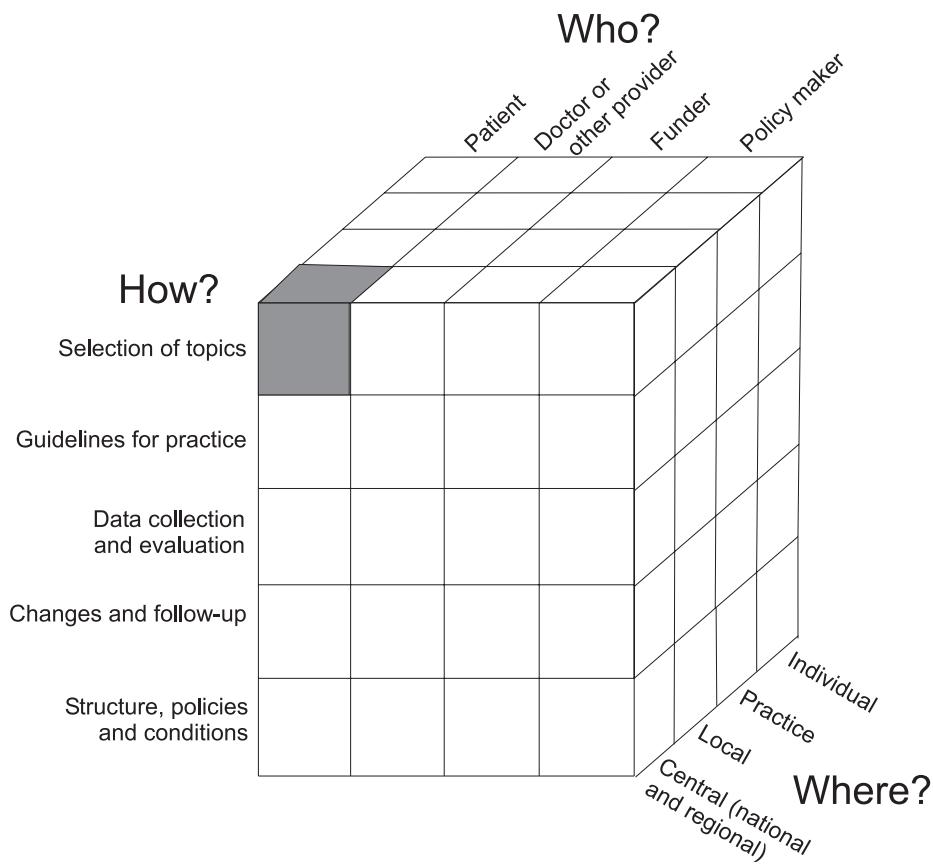


Figure 1. Quality cube.
Dimensions of quality improvement in primary care.

The quality cube illustrates how the actors and health care levels influence one another constantly. These interrelationships can be used in the strategic planning and development of quality programs. Next we will examine the sides of the quality cube in more detail.

Professional perspective of quality

For family doctors and other primary care professionals, quality has mostly meant clinical quality of care: offering technically competent, effective, safe care that contributes to the well-being of individuals and families. This is what we as professionals have been trained to do, and we take pride in doing it well. However, we also recognise other sides to quality. We increasingly see that addressing patients' concerns and sharing decision making with the person suffering from ill health are as essential to good-quality health care as technical competence.

Primary care managers understand that support services - for example, logistics and record keeping - also are important to the quality of service delivery. For policy makers, additional key elements of quality include cost, efficiency, and outcomes for entire populations.

Patient perspective of quality

For patients, quality is largely evaluated on the basis of their interaction with providers. They want reasonable access and availability, competent care, respect and privacy. In basic terms, they ask whether they get the service they expect. Bruce described elements in the quality of care that can be adapted to primary care in general:

- Geographic and cultural access to services
- Appropriate constellation of primary care services
- Choice of services
- Information given to patients
- Technical competence
- Interpersonal relations
- Mechanisms to encourage continuity of care.

Who should be interested in primary care quality?

The focus of this book is family doctors and their professional organisations. These organisations use quality improvement to help their members to improve patient care.

Professional organisations can choose from many possible roles – motivating, educating, funding, monitoring, supporting, etc. Similarly, an individual doctor may act as care provider, decision-maker, communicator, community leader, or team member. Quality is a part of all these roles and should be reflected in all professional work.

Where do quality efforts take place?

Each level of care has its own special role in quality improvement. Quality initiatives at one level of care affect other levels. The individual family doctor working alone or in a larger practice group is also part of quality efforts at the local and national level.

Central or regional level

International agencies, national academies and colleges, regional government or family doctors' organisations are commonly concerned about regulation, policy setting, large-scale information gathering, the level of support structures and evaluation. These actors may for example set standards for accreditation, create funding policies, or launch educational reforms.

Local level

Local groups of family doctors may conduct quality efforts linking them with continuing medical education or recertification requirements. Examples are quality circles of family doctors with common interests or similar patients, such as schoolchildren or asthmatics. Audit and feedback are effective tools for changing behaviour at this level.

Practice level

Smooth functioning of practice processes is often the central quality theme of group practices or health centres. Administrative and personnel issues can affect the quality of care at this level. Topics for quality improvement are often easy to spot by thinking about recent problems. The beneficial effect of group quality activities, done in multiprofessional groups, is also evident in these settings.

Individual level

The single professional is most likely to think of quality in terms of each patient. Patient satisfaction surveys and medical audit are important tools to assess and improve the performance of an individual family doctor.

Choosing topics for quality improvement

Incident inventory with events report (EQuIP, Sweden)

The objective is to improve the processes within a practice by detecting everyday mishaps. A simple "Report on events form" is distributed all over the health centre or the doctor's practice. Everyone working in the practice fills in a form whenever something that should not happen does happen, or when something that should happen does not happen. Reports are sorted and discussed at a staff meeting. After discussions small groups start to solve the problem in order to prevent similar events in the future.

Audit starting grid (EQuIP, Italy)

The objective is to select the right area for quality development within a peer group. In a quality discussion group, the participants first list possible topics for audit using a nominal group technique or brainstorming. Each topic is then graded by each group member for importance and potential for change. The results are placed in a grid where the x-axis is the level of importance and the y-axis is the potential for change. To be important a topic must be common, a relevant problem in primary care, or have serious consequences.

We need to look at three aspects of care: structure, process and outcome. The structure includes the training of family doctors and other primary care professionals, practice organisation, resources, equipment and premises. Process analysis describes how well these resources are combined to provide care smoothly, systematically and without mistakes. Health outcomes are the final touchstone: Did our work improve the health – or at least slow down the deterioration of health – of our patient? Did we decrease morbidity and mortality in the population we care for?

Why is a quality journey important?

Primary care forms the natural basis of an effective health care system. While acknowledging the important contribution of other medical specialities and health care professionals, we see that primary care delivery depends on family doctors.

It is widely accepted that well arranged primary care has the potential to offer, in a cost-effective way:

- accessible and acceptable services for patients;
- integrated and co-ordinated delivery of comprehensive curative, rehabilitative, palliative and preventive services and health promotion;
- equitable distribution of health care resources; and
- rational use of secondary care and drugs.

To fulfil this potential and to justify its position as the foundation of the health care system, primary care professionals must deliver quality and improve their performance systematically.

Greater accountability is demanded today from all areas of the health system. Given the growing costs of health care and the variability of health care services, governments, funders and patients increasingly want assurance that the money spent on health will result in high-quality care. The rise of informed and vocal consumer movements in health care is one expression of this demand.

Consumerism and increasing access to a wide range of health information have also affected patients' interactions with professionals. Patients demand more involvement in their own health care decisions. They expect better health outcomes and challenge family doctors to meet their wants as well as their needs. Increasing litigation in many societies adds to the pressure for ways to attain optimal quality of care.

These demands for better performance occur in an environment where there is evidence for the need for improvement in care in some areas. Documented variability in many processes of care (e.g. referrals, prescribing patterns, procedures) raises doubt that all the range of such variation may not represent optimum quality. There are many reasons for variation – individual patient diversity, ways illnesses develop, unequal resources or uncertainty about the best medical practice in certain situations. However, there are also less acceptable causes of wide variation – inadequate knowledge or skills, poor management and delivery structures, or ignorance or disregard for well documented evidence of best practice.

Individual family doctors need support in their intrinsic desire to do their best for their patients. We have never met a family doctor that aspired to incompetence. As research and experience show us better ways to help enhance quality, family doctors, their organisations and leaders must help colleagues to understand and use these new tools on their journey to quality.

Finally, if we need further reasons to travel toward quality, let us consider the alternatives. The expectations and performance of health care are constantly changing. Health care is on the move; we must keep up with it. The question is not whether expectations and performance will change or not – it's only how, and how rapidly.

This travel guide is intended to share the wisdom of those who travelled before us, so that we can be more successful in our own journey. It is much better to be the intentional traveller than the accidental tourist. An explicit and systematic approach to providing health care is likely to be more satisfactory than a haphazard and vague arrangement.

Travel tips

- Quality is reaching the best possible health outcomes, given available resources and considering patient preferences.
- Quality is global, dynamic, and multifaceted.
- Quality efforts respond to rising expectations of improving performance in health care.
- Effective primary care is the foundation of most successful health systems.
- Family doctors have a desire and responsibility to improve primary care.
- Quality improvement is most effective when it is explicit and systematic.



Chapter 3

Quality in health care today: Where do we start from?

We need to know how far we have traveled and where we are so that we can understand in which direction and how far we need to go on. This section will review the history and current status of quality activities in primary care around the world.

The start of the journey

As professionals, physicians have always dedicated themselves to serving their patients as best they could and to improving their practices. Although doctors have endeavored to do their best and to learn new approaches, systematic reflection on the outcomes of medical interventions is a relatively recent, and resisted, phenomenon. During the Crimean War, Florence Nightingale urged British Army surgeons to track their battlefield techniques and outcomes. Her exhortations were not well received. In the early 1900s, Ernest Codman advised the medical staff of the Massachusetts General Hospital to monitor their performance and to continue only those practices that resulted in favorable outcomes. His advice was not well regarded.

Family doctors have played an important role in the history of quality improvement in health care. British general practitioner Will Pickles laid the foundation for clinical epidemiology and practice-based research as he compiled a list of the diagnoses he encountered in his practice. Kark and colleagues in South Africa and Israel demonstrated the significant health improvements that were possible through a community oriented

approach to health care services. These innovations became important tools in later efforts at improving health care quality.

After World War II, the conceptual framework for evaluating the quality of health services was heavily influenced by Avedis Donabedian, who examined the structure, process and outcomes of health care (1980, 1982, 1985). When a hospital had proper procedures in place and suitable facilities (structure) and hospital personnel worked together in an effective manner (process), then it was expected that patients would experience good outcomes.

Early attempts to assure quality in health care focused on identifying the errant doctor and offering remedial education or enforcing disciplinary sanctions or limitations on the doctor's scope of practice. This notion of searching out the "bad" doctor was consistent with the traditional belief that physicians were solely responsible for the quality of health care services that their patients received. As an appreciation for the complexity of health care delivery increased, so did the need to practice in teams of professionals with shared accountability.

Serious efforts toward the systematic improvement of the quality of health care services required advances in other fields, such as industrial engineering and statistics. Deming developed a statistical approach to improvement and showed that monitoring and redesigning processes could lead to continual and incremental improvements in quality. Most recently, lean thinking has been advocated by quality experts, such as Womack and Jones. Understanding and streamlining the steps in various processes and eliminating waste in those processes have shown tremendous impact on efficiency and quality, particularly in the manufacturing sectors.

The role of family doctors

The role of the family doctor in improving quality varies considerably depending on the health care system. In many countries, health services are organised around the family doctor who is viewed as the central caregiver. These countries are heavily reliant on community based primary care services, and quality mechanisms are often more extensively

developed in primary care than in the hospital setting. In hospitals, the heads of the various specialty services are assumed to watch over the quality of their services.

Investing in quality in primary care, where most patients receive most of their care, reassures consumers that the bulk of their health services are of appropriate quality. It also reassures funders and policymakers that limited resources are used wisely. The investment in quality monitoring and improvement can be considerable. For example, Great Britain dedicates about 5% of its National Health Service budget to quality activities.

In countries where health care is more specialist- and hospital-centered, quality efforts are often multidisciplinary and more developed in the hospital arena than in primary care where resources are more limited. Health systems that are hospital-focused tend to relegate the family doctor to a subsidiary role, as just one of many different types of physicians, when it comes to coordinating health services or improving quality.

Variations of care from the Internet

In the Nordic countries, national hospital statistics or registers are publicly available on the Internet. Any consumer, professional or politician in Finland can look at trends in hospital output volumes, compare numbers of cardiac operations per region, or look at admission rates for psychiatric or obstetric care. Regions or individual hospitals can receive passwords to inspect their own statistics in more detail at <http://info.stakes.fi/nettihilmo/>. In Sweden, more than forty national quality registers are available at www.sos.se/mars.

No matter what the system, growing public demand for reassurance about health care service quality has caused funders and policymakers to provide more public information about it. This can create tensions when the need and right to know discourages the candid disclosure of facts required for meaningful assessment and quality improvement.

Quality activities at all levels of care

Using the quality cube described in Chapter 2, various examples of quality activities can be given at the individual, practice, local, regional, national, and international levels.

Individual level

The individual family doctor most often begins quality efforts through a program of continuing medical education (CME). Many colleges and licensing bodies around the world require a specified number of CME hours each year, typically 30–50 hours annually, for the family doctor to remain certified or licensed. Research suggests that the impact of formal CME on physician practice behaviors is limited. Certain forms of education, such as recommendations by respected influence leaders, academic detailing, performance feedback, and practice prompts or reminders appear to have greater effect than lectures or other forms of passive learning. At the same time, CME may be necessary to provide the motivation and framework for quality activities.

Practice level

The growing complexity and intensity of health care increasingly require teams of health care professionals working together to provide needed services. Such teams may range from a single doctor and nurse, through a multiprofessional practice team of health care workers, to several practices which share responsibilities (such as after hours coverage) and resources (for example laboratory services). In care systems involving multiple individuals, quality can suffer because of communication or coordination lapses between those responsible for various aspects of one patient's care. Quality efforts, to be successful, need to include all the members of the team.

Formal programs to evaluate and improve practice quality have recently developed in a number of countries. Australia introduced a formal program of practice accreditation in 1997. It consists of an intensive review of practice organisation and structure and includes patient satisfaction surveys, peer visiting, medical record review, doctor and staff interviews

and inspection of premises and equipment. Participation in the program confers access to additional reimbursement from government payers.

In some countries, practices are increasingly organised into networks, either through contracts for specific activities or through merging smaller practices into larger ones. To compete effectively for contracts or patients, such large groups are often expected to initiate and report on quality activities. Some groups have developed very sophisticated quality improvement systems. The Intermountain Health system in Utah, for example, has created an elaborate quality monitoring program which depends heavily on computerised data collected in the office and hospital. The organisation, working with its physician leadership and the relevant group of doctors (e.g., its orthopedic surgeons in the case of hip replacement) uses this information to identify areas for practice improvement.

Local level

Much quality work occurs at the local level, where family doctors share their practice experiences and learn from each other. In Ireland, small groups of family physicians (usually 6-8) meet regularly to review their practices. These meetings are facilitated by a tutor, a respected family doctor who has one day a week funded by the national government to assist area family physicians in the improvement of their practices. In the meetings, the doctors present actual cases from their practices, and discuss strategies for management .

Quality circles are employed throughout Scandinavia and Germany. Bringing together doctors from one or more practices, quality circles often include the practice staff, local public health workers, other health care professionals and, sometimes, patients from the practice. A quality circle offers an opportunity for regular and rigorous self-review of performance.

Regional level

Quality efforts in some countries may be organised at a regional level, such as states, provinces, or districts. All doctors in Ontario, Canada were required to have their practices evaluated every two years through a mandatory practice assessment program. The evaluation consisted of sampling of medical records by a review nurse; these records were judged against computerised care algorithms. In addition, a physician would visit the practice and assess the doctor's process of care, decision making, and competence.

National level

While health care is delivered locally, it is most often funded and directed nationally. Consequently, many quality improvement activities are centered at the national level. These can take many forms: funding, legislation, and guidance by information are all in use singly or in various combinations. For example, Great Britain has invested considerable funding in a national scheme to evaluate GP practice quality through the practice audit program. Medical record reviews are conducted every two years to compare practice performance against specific measures. Reimbursement can be affected by a practice's audit findings. Sweden, in contrast, has legislated quality management to be compulsory in publicly funded health services, but has so far few tools to monitor the effects of the law.

In Finland, the Ministry of Health has together with the Association of Finnish Local and Regional Authorities given a recommendation for quality management in welfare and health services (Ministry of... 1999). They underline the importance of seeing care processes through customers' eyes, the necessity for team work, and the need for quality activities in the everyday work. The local communities, which have the main responsibility for providing social and health care, are using these recommendations to motivate local politicians to give personnel and other resources for building customised quality management systems.

The Dutch College of General Practice has established a very efficient model for guideline development. Using teams of Dutch family doctors

assisted by selected experts, the College has created dozens of clinical practice guidelines. The program has also invested in implementing many of these guidelines actively; the use and impact of the guidelines are still under study.

The complexity of the United States health care system has spawned multiple types of quality oversight activities. Clinical practice guideline development is supported by the federal government, bringing together multidisciplinary expert panels to develop guidelines. The federal government, through contracts with private Peer Review Organisations in each of the states, conducts reviews of the quality of care provided to patients under the federal Medicare (for the aged and disabled) and Medicaid (for the poor) programs. Because most health funding in the United States is private and employer-based, numerous private initiatives for health care quality have also been developed. Much attention has focused recently on patient safety and the reduction of medical errors. The Institute of Medicine has estimated that between 44 000 and 98 000 hospital deaths occur annually due to medical errors. Private efforts have advocated computerised prescription entry to reduce medication errors and the management of critically ill patients only by qualified intensivists.

For the past 80 years, the Joint Commission for the Accreditation of Healthcare Organizations in the United States has established very detailed standards for the voluntary accreditation of health care facilities. State governments often allow such accreditation to substitute for state review of a facility for licensure purposes. Accredited facilities are reviewed every 2–5 years. In addition, specific care processes (for example, rate of immunization at age two, percent of women aged 50–69 who have had a mammography) are evaluated against standards. The National Committee on Quality Assurance was formed in 1988 by health maintenance organisations to evaluate the quality of care provided through health maintenance organisations. About half of the 600 organisations participate in the review process which occurs every two years.

Process redesign in health care

Founded by Don Berwick in the United States, the Institute for Healthcare Improvement, or IHI (www.ihl.org), has used principles from industrial engineering to foster the improvement and efficiency of health care. One major IHI endeavor, the Idealized Design Clinical Office Practice project, involves 42 practices across the United States. These track their performance on specific process redesign efforts such as open access scheduling, improved patient flow through the office, or joint consultations for groups such as pregnant women or overweight patients. IHI believes that sole reliance on traditional physician-patient consultation is antiquated. Practice will develop toward fewer office visits to a doctor and more care management by teams using multiple strategies such as email and group visits. IHI has embarked on an initiative with the British Medical Journal to expand its activities internationally through a website and other activities.

International level

Quality activities have also been undertaken at the international level. The most prominent example in family medicine is EQuIP, the WONCA European working party on Quality in Family Practice. Established in 1993, EQuIP now includes more than 30 member countries which send delegates to meetings twice a year. The family doctors share knowledge of their national experiences, undertake collaborative projects and teach workshops in each other's countries. For example, the EUROPEP project involved patient evaluation of family medical care in 13 countries, using a standardized instrument translated into each national language. A summer school in Maastricht has trained many family doctors in quality methods and facilitated the networking across Europe of individuals with an interest in quality.

EQuIP also attempted to develop an international guideline on acute otitis media that provided a valuable lesson on the importance of culture in medicine. While the representatives from various countries were able to agree on suitable outcome measurements and selection of eventual antibacterial treatment, they disagreed on whether the benefits of antibacterials (one less night of crying for the child) merited the societal

WONCA - WHO Recommendations for Action to Build a Publicly Responsive Health Care and Medical Education System

At the health care system level:

- accept that health care must change,
- link funding policies to defined needs,
- use public health services more appropriately,
- implement workforce reform,
- define the status and role of family doctor, and
- use specialist service more appropriately.

At the medical practice level:

- test new models of integrated health care delivery,
- use both community and practice based analysis of people's needs to provide relevant standards of practice,
- use well-trained family doctors to provide better quality care more cost effectively,
- encourage all patients to identify with an individual family doctor,
- establish colleges /academies of family doctors in all countries,
- family doctors should demonstrate their continuing competence using valid and reliable methods of self assessment, and
- ensure that remuneration systems of physicians do not distort health care .

At the medical education level:

- judge medical education by its relevance to people's needs and its applicability to medical practice,
 - recognize family medicine as a special discipline,
 - in basic medical education, provide a relevant foundation for subsequent specific training,
 - teach the discipline of family medicine in every medical school and provide a generalist/specialist balance,
 - provide specific postgraduate training in family medicine,
 - focus continuing medical education on performance improvement,
 - place more emphasis on health services- , population- and primary care - based information, and
 - gather and disseminate examples of excellence.
-

risk (emerging drug resistance). Ultimately, a single guideline could not be created as the participants agreed to disagree.

There are additional multinational efforts underway. The Asia Pacific Quality Improvement Program was created out of a quality workshop conducted in Taipei at a regional WONCA meeting in 1998. The South American countries held a joint workshop in Mexico in 2000, and enthusiasts willing to build an African quality network meet in Durban in May 2001.

Quality improvement in Family Medicine was further put on the world agenda in 1994 by publication of a collaborative report by WONCA with the World Health Organisation: "Recommendations for Action to Build a Publicly Responsive Health Care and Medical Education System". This vision for improving patient care emphasises primary care quality systems and program development and offers a number of challenges for quality improvement in family medicine at the international level (see previous page).

Quality efforts have a long history in health care, and many paths have already been cleared. The wise traveler looks around for useful maps and routes for travel. These can also be found in neighboring countries or international organisations.

Travel tips

- Quality efforts in health care began as isolated observations of a few visionaries.
- More complex health care services have made a more systematic approach necessary.
- A wide range of quality programs are active around the world.
- Cooperation across national borders is fruitful.
- Examples from industry offer much potential for evaluation and improvement of health care processes.
- The uniquely local nature of health care is a challenge when transferring quality management experience between cultures.



Chapter 4

Where to go and how to plan the trip?

The previous chapters have looked at our concepts of quality and why we pursue it, then charted our quality journeying to date. This chapter deals with the next steps – how to take stock of where we are, decide where we next want to travel and how we can begin planning that new venture.

Planning a quality journey

Any journey involves many questions and choices:

- What is our purpose in moving onwards and what do we hope to gain from the next stage of our trip?
- Where are we now? What goals have we achieved so far?
- What are the factors in the environment that will affect our journey and therefore our choices?
- Where do we want to go and what route will we take to get there?
- What are the available means of transportation and how do they work?
- Who will be with us on our journey and how will we work together to ensure co-operation and avoid conflict?
- What are our current resources compared to the estimated needs of the trip?
- How will we monitor our travel to ensure we stay on track?

All of these need to be considered in the planning stages. They do not necessarily flow as an orderly process. Often something we learn on the road makes us go back and reassess our answers to earlier questions.

However, we generally have fewer worries during the travel if we have tried to think about most of these questions. Here we look at the ways family doctors, their practices and professional organisations can plan their quality activities for the coming months or years.

Planning as a process has received much attention and analysis. Business management is becoming an increasingly sophisticated discipline, with planning as a key skill. The steps of strategic planning may sometimes seem complicated, but basically they cover simple processes.

The steps of planning are described here as separate processes and occur in a logical sequence. The actual process of planning is rarely that orderly. These steps give a structural framework to help plan more thoroughly – and hopefully more successfully. In practice and with more experience, you will find yourself blurring the edges between the steps and going back to re-think earlier steps in the light of later considerations.

Being clear about your destination

As a traveller, you need to decide if your journey is for pleasure, business or adventure. You may picture yourself as relaxing in comfort on a slow boat to China, or your overwhelming image may be the need to arrive on time and ready for business. You may also need to take account of the views and expectations of others – fellow travellers or those paying for the trip may have their own ideas about destination. Whatever your goal, be clear about the big picture of what you are trying to achieve. Avoid tripping over blueberry bushes if you want to reach the edge of the forest.

When planning quality initiatives in family medicine, it means reviewing your own or your organisation's values and purpose in the health system. Consider what sort of contribution you want to see yourself or your organisation making – picturing your ideal in realistic terms. You should also ask who else has a legitimate interest or something at stake in your endeavour and take into account their concerns and expectations.

In both examples above, you are determining what business planners call the Mission and Vision for your endeavour. Large organisations often

create formal and regular processes to decide and review their mission and vision statements. They use these to communicate their core values and purpose to outsiders, as well as internally to help keep everyone focused on why they are there. Mission and vision help people to see the whole forest, instead of their favourite trees only!

How you develop your own mission and vision depends on your individual situation and responsibility, your culture and inclination. As an individual, you will benefit from reflecting on what you see as your role in health care and what sort of family doctor you want to be. This always needs to be balanced within the perspective of your overall life goals and values. Your own personal mission and vision may well change as you and your environment change.

Similarly, small practices or large regional health services, professional organisations and government health departments can all benefit from the process of deciding and regularly reviewing the big picture of what they are trying to achieve.

Knowing your current situation

When planning quality improvement activities, we need to analyse our own situation and context. We can learn from past experience and plan to go differently in future. For the individual family doctor, this may be an analysis of your own clinical skills and performance and how well they match your patients' need. This can help you to identify your own learning needs, the first step in self-directed learning.

For organisations, the analysis may need to include a broader assessment. One of the structured ways of doing this is the SWOT analysis. This process is based on looking carefully at the Strengths, Weaknesses, Opportunities and Threats in your own or your organisation's current environment. Experienced staff is usually aware of both internal as well as external factors affecting the work – they should be asked to join in the SWOT analysis brainstorming session.

Strengths are typically components of the internal environment. They often include current resources – people, experience, skills, goodwill,

motivation, reputation, etc. You may want to evaluate your strengths to see what areas are performing well and which of the existing goals have been achieved. Areas of strength are like a well-tended garden: flourishing, when water and sunshine are available. Good team spirit and happy, qualified co-workers are typical strengths in primary care units.

Internal evaluation and reflection can also identify weaknesses. This might reveal a lack of certain strengths – staff numbers, types of services or specific expertise. It may also be an acknowledgement of areas that need to improve performance or that are struggling to achieve objectives. Patient complaints can usefully point out certain weaknesses.

Looking outside the practice, at the environment in which we are operating can help to identify opportunities and threats. Opportunities can be developing trends that increase demand for your skills, or arenas offering new marketing possibilities. Threats are often noticed first when competitors pass us in an area. New technologies, for example, may bring along both opportunities and threats, depending on how well we are prepared to adopt them.

Potential threats can sometimes be turned into opportunities; we can for example succeed in changing a possible competitor into a collaborator. Undeveloped strengths or missed opportunities can threaten your ability to realise your vision. When the team has listed a sufficient number of both internal and external factors affecting their work, it can use other kinds of data to supplement the analysis. The most important factors are then identified and the irrelevant ones removed.

In the final phase of the SWOT analysis, the team charts its road to success by thinking how internal strengths can be used to realise external opportunities. To protect from external threat, consider how internal weaknesses can be overcome – or even better, turned into strengths.

International workshop supporting QI vision

A strategic planning workshop amongst the Philippine Academy of Family Physicians, the government run health insurance corporation (Philhealth), and the WONCA Working Party on QIFM supported the drafting of a five-year action plan towards an integrated quality improvement program for family medicine. This was achieved in the workshop by:

- analysing the different countries' models and experiences of quality improvement;
- assessing in small groups the strengths and weaknesses and identifying various problems, threats and opportunities in the implementation of current Philippine QI programs (SWOT analysis); and
- selecting potential new strategies and drafting a renewed action plan for quality in the Philippine setting.

The audience included selected family doctors identified as quality coordinators from various parts of the country, representatives from speciality societies and managers from Philhealth. Quality experiences from various countries were presented as interactive lectures. The QIFM representatives acted as facilitators and resource persons in small group discussions.

The workshop resulted in this renewed vision for quality in Philippine family medicine: *"We are committed to a health partnership of satisfied and empowered patients and public/private family medical professionals and institutions"*.

This vision is supported by:

- Leadership in quality that promotes innovation, quality treatment and referrals, and is participative and compassionate.
- Public policies and institutions that establish and promote total and continuing quality health care.
- Education and training that is adaptive, attainable, and sustainable.
- Comprehensive, cost effective and accessible care for families, provided in collaboration with other services in the communities.
- Professional and technical upgrading of family health medicine through formal training and accreditation.

The text of the workshop will be available at the Philhealth website. A significant aftermath is a serious consideration by the Australian government to fund the five-year action plan (based on collaboration and team approach) drafted at the workshop.

Deciding your goals, objectives and strategies

These words are used quite variably in different planning settings and often important and productive time is lost in arguing over meanings. Here, goals refer to broader concepts and reach over long time periods. Objectives tend to be more specific and are often components of, or stepping-stones to, broader goals. They can cover short, medium or longer time periods.

Strategies are the means of achieving our objectives and goals, or the practical arrangements or activities taking us to our destination. When the fairy tale castle Soria Moria is your goal, objectives are overnight camping sites on the way. For strategies, we choose the vehicles: do we need to cross hills or lakes? What takes us fastest to the next camp?

For example, some primary care teams, after reviewing their values and purpose and analysing their current needs, may decide on a goal of improving the family planning service to their patients. By further thought and discussion, they identify specific objectives to take them toward this goal, such as:

- Each of the doctors will be competent in family planning, having the knowledge and skills needed for the clinical tasks.
- The practice will have appropriate equipment and organisation for conducting family planning services.
- Patients will know about the family planning services and use them.

Each of these objectives can be broken down into more detail, such as a list of skills and knowledge required or specific equipment necessary. Such details can then be monitored and some measurement made to decide whether they are achieved.

Next, the doctors identify their strategies for achieving their objectives:

- Attending a family planning course, finding up-to-date guidelines on family planning, holding a case review meeting on family planning cases every few months.
- Ordering new equipment, reorganising the appointments system.

- Advertising new family planning services to their patients, asking for feedback about the service.

Strategic planning can call for discussions with service users and collaborators. Local schools may assist by including family planning in their curricula; teenagers might be able to suggest an attractive site for an open-access counseling clinic. A time schedule needs to be built, covering for example the next twelve months in a fairly detailed way and sketching the next couple of years in wider strokes. While looking at the entire process, different parts are more easily arranged to support each other in logical order.

Planning for increased access to care in rural areas

To achieve this important vision, one of the agreed goals in a developing country was to establish a new practitioner-training program in rural areas. The objectives during the first year were to

- find in the pilot province ten enthusiastic rural practitioners who were willing to accept trainees;
- assist them to become effective trainers; and
- write a grant proposal to fund the continuation of the project and to plan for its expansion into other provinces.

Generally, individual family doctors, practices and organisations will all have more than a single goal for any one period – the next month, year or decade. Setting goals and objectives includes setting priorities. These are discussed in the light of our own mission and vision, and considering the starting point. Here we again need to look at the larger picture, remembering available resources and stakeholder expectations.

Many strategies for quality improvement are available to us in family medicine. Details and examples help to translate the strategic plan (big picture) into an operational plan (practical, everyday choices). Lifelong learning and management skills are essential to consider while planning. The basic practical QI tools are useful in all areas of quality work. For

further details of methodology, a useful source is the EQuIP book on "Tools and methods for quality improvement in general practice" (Alles et al. 1998). Many of the examples in boxes within our various chapters are drawn from this book.

Basic improvement tools

An optimal way of learning about QI is actually by doing a quality improvement project related to own practice, as part of a peer group process. This "learning by doing" should be combined with some formal knowledge about the QI process and skills to use some basic improvement tools. Several basic tools are used in quality projects at different phases: wall technique, brainstorming, multivoting, flow charts, as well as fishbone and Pareto diagrams. The quality cycle is a central tool, underlining the importance of planning that covers the whole process of change.

The wall technique makes it possible to visualise the work process of a group and its results. It can be used during brainstorming, in flow chart planning, or in normal meetings. Each participant of the group gets self-stick notes and a thick marker pen. Stick the notes on a large sheet of paper on the wall, where they subsequently can be grouped, reclassified, new ones added or doubles withdrawn.

Brainstorming is a group activity that quickly can generate a large number of ideas or discover problems in a process. A chairperson may be necessary to guide the group. First the theme is clarified, then ideas are produced, either by each member of the group writing an individual list, or taking turns in telling their ideas. The ideas can be written on self-stick notes or directly on a sheet on the wall. Brainstorming aims for quantity, not for quality, so do not evaluate the ideas at this stage.

Multivoting involves evaluation and setting the order of importance on ideas brought forward during the brainstorming. It aims at producing a group decision of the order of importance, and helps to avoid choices by the loudest or most influential members of the group.

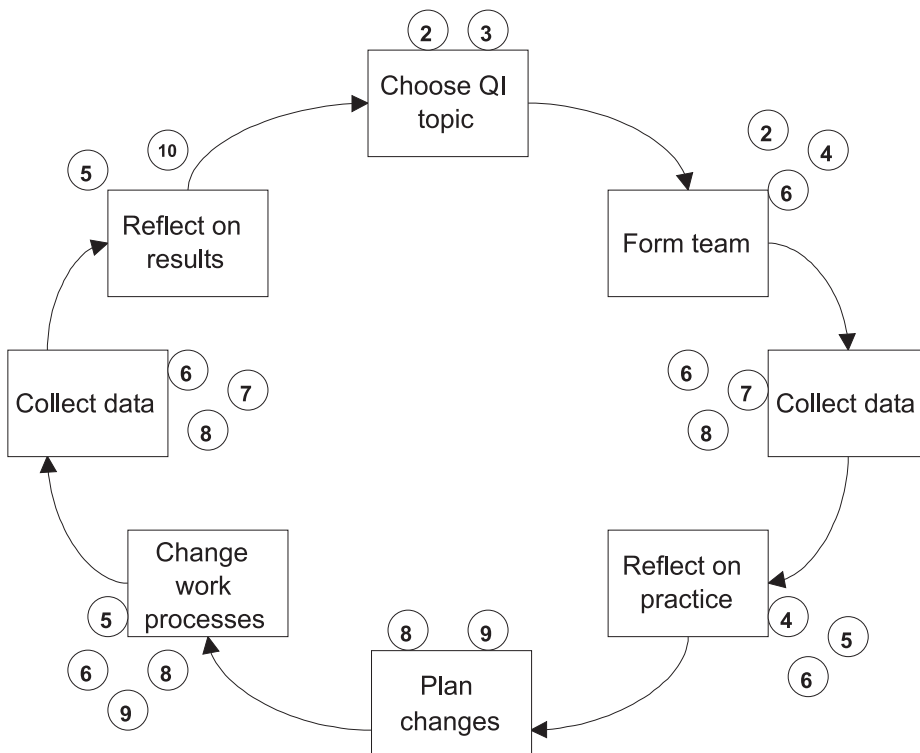
Flow charts describe work processes in a visible form, showing the routes and sequences used in treating patients, sending laboratory reports, or referring patients. Drawing a flow chart together in a group often raises useful discussions about the ways things are done. It is best to draw flow charts together with all the participants of the process being described.

Fishbone diagram (cause-and-effect diagram) gives a visual description of the elements affecting a result. It is used to identify the roots of problems. The main bones represent classes of causes; classes often used in health care include staff, patients, facilities, instruments, and organisation.

Pareto diagram is used to classify problems into order of importance. All quality problems have several causes, out of which only a few are essential. In order to be effective the quality improvement process needs to identify and focus on these vital, few aspects and not bother with the many insignificant points in the process.

The quality cycle

One of the central concepts in quality improvement is cyclical change. Having gone through the exercise of analysing and changing your own work, you know much more about it and often are eager to start the improvement process over again. Evaluation and reevaluation are at the core of quality improvement. Each team that takes on quality work finds the cycle for itself and reaches its own understanding of how to organise topic selection, data collection, evaluation and change. This is why the Quality cycle has been described so often, in so many different formats. Figure 2 gives one version of this tool, indicating which chapters of this book can be useful at the various stages.



*Figure 2. Quality cycle.
Numbers in circles refer to the chapters related
to each stage in the cycle.*

Lifelong learning

Learning is one of the oldest and still most important strategies for quality improvement. How well we as individual family doctors perform depends in large part on how competent we are. We need to have appropriate knowledge and skills to apply in the wide variety of clinical challenges that we confront daily.

Appropriate *undergraduate education* should help future family doctors to learn the basic competencies for clinical care across all of medicine, including technical, interpersonal and organisational skills. In this early part of their training, all health professionals need to attain the skills and enthusiasm that help them to continue learning and improving on these essential competencies.

Specific *vocational training* should help doctors translate their basic competencies into specific knowledge, skills, attitudes and judgements within the discipline of family medicine/general practice. It also offers the opportunity for more practical experience of quality improvement initiatives within the discipline.

Continuing medical education, once the only vehicle for ongoing quality improvement, has been expanded and joined by a broad range of other activities under the umbrella of continuous professional development. Resources such as clinical audit, peer review, quality circles, academic detailing, and portfolio-based learning are now available to help the life-long learner in their quality journey. Learning is discussed in more detail in Chapter five.

Managing teams, information and resources

The individual family doctor is not and never has been the only contributor to quality care. Other members of the health team play important roles and quality improvement must also involve them. Similarly, patients' views, preferences, needs and behaviours are natural determinants of quality. Patient participation in quality activities is vital. Finally, the relationships between all these players and the system in which they work offer further opportunities for quality management strategies.

Another increasingly important vehicle for quality improvement in current health systems is information management. As the amount of available health information multiplies explosively, a doctor's learning style must change from memorising medical details to learning to find and sift through sources of medical knowledge at need. Strategies to ensure easy accessibility to accurate and credible information thus become crucial to quality improvement. Similarly, the use of information on the performance of professionals and systems – how to read our own statistics – is another basic QI strategy.

Once we have decided on the nature and reason for our journey, taken stock and decided on where we will go and how we will travel for our next trip, we then should begin to list what resources we will need to realise our plans. This is often the stage where we need to go back and review the entire travel scheme! But remember that quality initiatives not only create cost – they also provide benefits. Quality work can for example have a clear impact on the effectiveness of work or create marketing opportunities.

Individual family doctors or organisations planning quality improvement initiatives will need to decide on what resources they need for their activities. This may include people, time, skills, or questionnaires. Next, they should assess what resources they have available. Sometimes this may involve a trade-off between money, staff and time. For example, individual family doctors may collect data on their own performance themselves, taking time outside normal work hours, where a larger organisation may be able to employ other staff for data collection. Often it is necessary to seek possible additional resources. There may be sources of grants or sponsorship for quality initiatives, even on a small scale.

Cultural appropriateness

In deciding what quality improvement activities we want to start and what methods we will use, we must make sure that our choices are appropriate to our situation – resources, environment, attitudes and culture. A fashionable sports car driving through outback Australia will look impressive in the imagination. But it will not perform well on dirt roads

full of potholes and rocks. And maybe we can only afford the bus! The most direct and efficient route on a map may travel through “sacred ground” or “hostile territory”, so travel needs to be planned to take account of local beliefs and attitudes. Similar thinking is relevant when choosing quality improvement activities and methods to implement them.

We may need to use simple methods that work in all situations and allow for most family doctors to join in, rather than very sophisticated activities developed for other cultures. We also need to be aware of what is acceptable and possible in our own context, and compatible with the values of our local family doctors, patients, health system and community. While sticking to local appropriateness, don't forget to look around for good methods - for example questionnaires that already may have been validated to your own environment, such as Europep (Grol and Wensing 2000).

EUROPEP patient satisfaction questionnaire

A one-page, 23-item questionnaire has been developed in collaboration with several European countries, and is translated into 15 languages. It is used as a comparable instrument to elicit patient's opinions about their family doctor and the quality of care at the practice. Data are collected from six areas of interest in primary care: doctor-patient relationship, medical-technical care, information and support, availability and accessibility, organisation of the services, and overall impression. It can be used in both single-handed and group practices, and in any type of remuneration system. This basic instrument offers a possibility for evaluating the other members of the primary team as well. It also allows for comparing results between family doctors, practices, and even between countries.

The publication “Patients evaluate general/family practice. The EUROPEP instrument” can be ordered from Prof. Richard Grol, WOK, PO Box 9101, 6500 HB Nijmegen, The Netherlands. E-mail R.Grol@hsv.kun.nl.

Organisational as well as national subcultures differ along several dimensions. People may act differently from what you expect because they are used to a different style of work, planning, or communication. Some of the important aspects of such cultural differences include:

- Sense of hierarchy: Do people expect orders, or do they want to debate their choices first?
- Directness: Do people get straight to the point or rather express themselves by implying?
- Team orientation: Are people team players or prefer solo performance?
- Need for consensus: Is difference of opinion accepted and valued or suppressed?

Finally, accept that lack of resources or lack of support among our colleagues may mean we cannot start all the QI activities we would like to. Sometimes we must make only small beginnings, build on these and add new activities as acceptance and resources grow.

Travel tips

- Planning ahead saves time and trouble later.
- Agree on your long-term goals before launching new initiatives or programs.
- Consider and use a variety of strategies – both old and new to you – to reach your goals.
- Plan together with your team and your target population, and tailor your plans for your own environment.
- Use the quality cycle and other quality tools to suit your own needs.
- Small steps often provide a steadier progress than big leaps.



Chapter 5

Toward a culture of quality: Teaching and learning

Most medical professionals have a general understanding of the importance of quality improvement at all levels of the health care system. As health care workers, however, we usually have less knowledge about *how* quality should be managed. How can the idea of quality improvement become a part of our socialisation process as professionals, and how can we integrate it into our everyday clinical work? We often have an intuitive understanding of the *why* but less about the *how*. Quality improvement must become part of our daily professional life, not just a series of projects that we accomplish every now and then to look good. For this to happen, the concepts of quality improvement need to be an integral part of our life long learning process as doctors.

Teaching is not the same as learning. Teaching usually involves providing information, ideas, and understanding in some way or another, such as by the spoken word (lectures), written text (books, journals) or by showing (demonstrations). Teaching also means helping others to comprehend issues from their own point of view; this requires sensitivity toward the students' life situation and learning needs. Learning on the other side depends upon someone receiving new information and understanding of the world, internalising it and making it part of their own knowledge base. This is usually an active, conscious process on the part of the learner.

Culture is stronger than strategies. We can develop elaborate strategies for quality which are unlikely to be successful or sustained, unless we adopt a culture of quality where everyone is committed to explicit and systematic improvement. *Culture eats strategy for lunch.*

In our primary medical education and later in our vocational training we are socialised into the thinking and behavioural patterns of clinicians and family doctors. Socialisation into a specific culture is mostly unconscious. We become Filipinos or Americans by living and growing up in families in those countries. To become part of the subculture of clinicians, for whom it is natural to seek always to improve, students must experience this subculture personally as they develop through the educational and training system. In other words we need to learn by doing and reflecting in the presence of senior colleagues in what is close to a normal practice situation. This leads to a deeper and more permanent learning process. Donald Schön (1987) has described the process of Knowing-in-Action and Reflection-in-Action by which most adults learn.

Quality improvement in undergraduate learning

Our learning process as professionals begins the first day of medical school. The concepts of quality and quality improvement should preferably be introduced early in the medical school curriculum, in order to be a sustainable part of all doctors' clinical identity.

Many medical schools still depend heavily on lectures and traditional didactic teaching. Quality improvement is not a subject that lends itself to didactic teaching alone; it is quickly experienced as heavy on theory, abstract, boring and not relevant to the students' learning needs. In order to increase learning about quality improvement, the teaching should be linked to the students' own practical life experience and occur in the context of real clinical work. This is no small task, especially early in the curriculum when students have scant clinical experience.

At the same time students do need some theory, often in the form of lectures or recommended readings, in order to get a basic understanding of the concepts in quality improvement. The quality circle should not have to be re-invented each semester. The important goal in medical school should be to provide students with an active practical learning experience as well as an education in the theory and application of continuous quality improvement. This can happen by observing primary care teachers' work on their own quality projects; sore throat is a typical QI topic to start with.

Audit of antibiotic therapy in acute respiratory tract infections

(EQuIP, Estonia)

The general aim was to introduce medical audit to family doctors and the more specific objective was to improve the treatment of acute respiratory tract infections. Members of a group practice prepared a one-page registration chart with several variables; then data were collected after every patient consulting for a sore throat during a 3-week period. They analysed their data and held meetings to discuss results, comparing their actions with preliminary guidelines. Group members then made suggestions on how to improve diagnosis and treatment of these patients. They repeated the audit after one year. The results of the second data collection showed a 22% reduction in antibiotic prescriptions related to upper respiratory tract infections.

Teaching related to QI is new to most medical schools and not much has been written about it. One interesting example is from Dartmouth Medical School in the United States (Weeks et al, 2000). As a part of its curriculum Dartmouth requires all medical students to take a two-year course called "On Doctoring". In groups of eight to ten, students meet weekly to learn about the doctor-patient relationship, interviewing, the physical examination and patient care. The meetings alternate between on-campus didactic sessions and visits to community-based family doctors, acting as preceptors. Here the students get a chance to practice their newly learned skills. This also makes a good setting for introducing the students to different ways of improving patient care.

In the first semester at Dartmouth, the didactic component includes an introduction to quality improvement concepts and tools, such as an overview of systems theory, video reviews of quality improvement cases, and theoretical walk-through of an improvement project using such tools as flow charts and statistics. It also includes case presentations of successful improvement projects. The students are then asked to use flow charts to track several patients through their preceptor's office in order to identify areas where workflow interferes with meeting the needs of the patient. Students discuss their diagrams in small groups; these discussions then serve as springboards to develop year-long, small-scale group projects where the aim is to improve patient care.

The students in each group work with their preceptors to discover what areas of patient care delivery the practice would be interested in improving. The students then brainstorm, use external resources such as literature reviews, and collect relevant baseline data. On the basis of this they develop a project plan, including a plan for implementation. This plan is presented to a panel of experts on quality improvement, drawn from the teaching staff at the medical school and including their preceptors, to get feedback. After this phase the more advanced students enact a small-scale change in practice, if possible. At the end of the year the students assess the impact of the small-scale change through follow-up measurement, and present the results to the staff.

This model emphasises the first part of the quality cycle and usually ends with planning for change. This is done on purpose, as the next step – actual change – is too great a task for most students and preceptors to do and to follow up, even in a two-year program. The authors from Dartmouth conclude that the program so far has been a success. It demands a fair amount of planning and teaching efforts. Although implementation of the projects did not always proceed as planned, the students were invariably able to use flow charts, review the quality literature, identify areas for improvement, and outline and sometimes commence a plan to enact change at practice sites. All these are valuable skills when later getting out in clinical practice.

Another case study is from the Department of Family medicine and primary health care at Medunsa University in South Africa. Here quality improvement is introduced later in the curriculum. In the final year of their medical studies, students spend seven weeks of their family medicine block in a community health centre within the district health system. During this period the two or three students posted at the centre are required to complete a quality improvement project. They form a team with appropriate members of the permanent staff and complete a quality improvement cycle on a real problem in the health centre. In doing so they contribute to the improvement of the service.

To do the project, students get resource articles about the QI cycle as part of their course manual and the QI report done by the previous group of students at this health centre. The students consult with the staff and the family doctor-facilitator and decide whether to carry on with the

previous topic or start a new one. Their report at the end of the block contributes 10% to their final marks in family medicine. Although seven weeks often is experienced to be too short a time for completing a whole quality cycle, the students feel they are making a difference and a contribution. At the same time, the clinic staff experiences this teaching effort as a valuable process that has helped them gain more control over their own difficult working conditions.

Training family doctors

Vocational training is the process in which the medical graduate specialises or prepares to work as a primary care doctor. One thing is to become a family doctor; another is to stay qualified throughout a professional career. Continuing medical education (CME) is the process of lifelong learning within the fields of medical knowledge. Continuous professional development embraces not only CME, but also the development of non-medical competencies, such as personal and social skills, quality improvement, leadership, and other proficiencies. CME is a prerequisite for quality improvement, and the two are intimately linked to each other.



Making a difference: Students decreasing mortality rates

In the vocational training program of family physicians at Medunsa in South Africa the students are based in one form of primary care practice, either government or private practice. It is a distance learning program in which the problems students experience in their own practice or context is a major part of their curriculum. The Masters' degree in Family Medicine is awarded after successfully completing 12 tasks or assignments, a master's dissertation and an examination. All the assignments are related to the aim of becoming continuous, self-initiated learners whose inquiry has in each instance made a difference to their practice.

One instruction reads: "Describe the actions you have taken as a result of this study/assignment and what you have learnt from reflecting on this action". Learning therefore is taking place within the framework of a quality improvement culture in which all the skills of finding and weighing evidence, of measurement, analysis, reflection and changed action within the team are practised repeatedly. With some students this has made a major impact on their whole practice or health district. In one such assignment the trainee and his team in a rural community hospital setting reduced the death rates that seemed to be disproportionately high at night and over weekends, by 16% and 24% respectively in a four-month period. This was achieved by reflecting on the data taken from the ward records and making alternative on call and reporting arrangements.

Continuous professional development

Doctors in most countries are legally required to keep up-to-date in their profession and to be responsible for the quality of the services they provide. It is generally considered an ethical obligation for each doctor to participate in continuing professional development throughout her medical career. So while the seed of quality should be planted in medical school, it should germinate and develop into a blossoming tree within each family doctor while in vocational training. Later it should be kept viable and healthy by CME throughout the family doctor's professional life.

For successful professional development to continue, several elements should be present:

- an understanding of the principles of adult learning;
- the mastery of basic quality improvement tools;
- an overview of methods used in quality improvement activities;
- a willingness to participate in QI activities at a personal level;
- a structure at the practice level allowing such endeavours to take place, and
- an understanding among the local and national professional and political bodies, facilitating QI activities.

Vocational and continuing medical education is much like that described for medical students, but to an even larger degree it should be self-directed, experiential, reflective, and collegial.

Lifelong learning about quality

Self-directed

As family doctors we learn within the context of our past experiences, our contemporary practice situations, and our ideals concerning what we should know. Our motivation for learning comes from what we feel we need when we reflect on these areas – this is the basis of self-directed learning. This approach has pitfalls, however, as too much freedom may lead to wasted effort. We may strive to further develop areas we already are good at, while failing to improve on our weaknesses. As adult learners we need gentle guidance by peers, educational supervisors or a mentor. This serves to overcome the problems we all experience in identifying our own “blind spots” or learning needs; we then cannot avoid getting into those areas we don’t find exciting.

Experiential

To be relevant, learning about quality should be grounded in our own work setting and be experiential. This does not necessarily mean that it must be “hands-on”, but relevant learning must derive from medical

practice and engage the problems that we face in our daily work. We must be able to see “what is in it for me”. As doctors, we are usually highly motivated to learn if that learning appears useful, particularly in the short term, and when it occurs within our practice setting. Another word for this type of learning is *problem-based*. Our learning is not an isolated or individual experience but occurs while we live our lives, work in organisational settings, and respond to technical challenges and professional norms.

Reflective

Learning never occurs in a vacuum. When we as learners recognise a teaching situation as important and relevant, a cognitive process takes place. Earlier knowledge and experiences are activated, often bringing forward mental pictures. New experiences are added to old ones and placed in context. We reflect on action, while being active. This process is like building a cathedral, slow but progressive, laying stone upon stone. Learning can thus be seen as an active, continuous cognitive process, where learning takes place when you reflect, alone or in company with others.

Collegial

Adult learning is most effective in groups of peers. This facilitates collegial discussions, collective reflection and feedback in a challenging but non-threatening atmosphere. Rapid feedback on your own performance is an important starting point for discussion and supervision, showing that you are going in the right direction.

Medical practice, including family medicine, increasingly occurs in the context of teams. Hence, students and practitioners alike must also learn the skills of reflection as members in a group, often involving different health care professionals. Various kinds of groups exist. Homogenous peer groups extend horizontally across an organisation or professional group, such as family doctors within a geographic region, usually providing relatively safe environments for peers to reflect upon work and problems shared. By contrast heterogeneous circles cut across different kinds of

peers, frequently containing other specialists as well as family doctors. Because of this variety, collective reflection in these circles is usually experienced as less safe and less familiar. Finally, vertical circles cut across an organisational hierarchy, crossing managerial and other functions, frequently also involving patients. These groups may be especially valuable when reflecting upon, learning about and improving service quality.

Encouraging innovative CME based on QI research

In Australia, family doctors maintain their vocational registration by participation in a formal Quality Assurance and Continuing Education (QA&CE) Program, run by The Royal Australian College of General Practitioners. This program aims to promote participation in effective QA&CE activities. It approves and rates different types of quality improvement and educational activities for family doctors according to criteria based on best research evidence of what is effective. The approval criteria encourage education organisers to design better training, and the ratings signal the potential value to family doctors.

Approved activities can include, among others:

- Workshops with clear learning objectives based on real needs, actively involving family doctors as teachers and learners and encouraging reflection and reinforcement through evaluation.
- Clinical audits where doctors evaluate their quality of care according to valid standards, plan and perform changes to improve care, and evaluate results.
- One-to-one educational visits (academic detailing) with focused messages about good quality care, based on best evidence and current practice patterns.
- Individual, self-directed learning programs that include peer contact with at least one mentor and maintenance of a portfolio of learning.

In the current program cycle more complex educational activities that link both audit and well-designed CME are encouraged through allocating bonus points. Such activities use individual family doctor audit data to compare current performance to standards, thus serving to identify learning needs. The standards for care provide the basis for any learning objectives for an educational intervention. Learning is evaluated by repeating the audit to see if actual performance changes.

The evolution of wisdom

The literature on expertise and learning indicate that a substantial part of the basis of experience is specific formal and experimental knowledge. We have to know our pharmacology and physiology before we can respond meaningfully to patients' problems. Self-directed, problem-based, reflective and collegial learning is important, but it is not enough. It should supplement, not replace, the acquisition of specific content and skills. These go hand in hand.

Principles on learning from QI

Some of the basic principles on learning from quality improvement are listed below, based on Batalden (1998). This list is rather extensive, but not conclusive. It gives an overview, but not all areas are applicable to all practitioners, at all times.

- *Understand who the QI activity at hand is aimed at.* First identify the external and internal customers: the patient, group of patients, other health care professionals or other target groups for whom the health care is being provided. Then assess their needs and preferences and the relationship of provided care to those needs and preferences. Competencies in this area include the ability to identify the target groups and to describe methods to learn about priorities and needs of these groups.
- *Understand family medicine as a process.* Family medicine is part of a larger health care and social system. The role of interdependent groups (patients, families, eligible populations, caregivers), procedures, activities, and technologies of health care that come together to meet the needs of individuals and communities. The doctor should be able to understand work as a process, and analyse data on process of work.
- *Understand variation of performance in processes and systems.* You can use this knowledge to improve and redesign primary health care. Competencies required include the ability to collect and analyse data on outcomes of care, to differentiate common and special causes of variation, and to use data to make changes that decrease unwanted variation.

- *Understand how to develop new, locally useful knowledge.* It is vital for quality improvement that you recognise the need for generating new knowledge in your own practice through empirical testing. Competencies required include the ability to conduct serial experiments by using the quality cycle or parts thereof, and by applying continuous improvement to personal learning and change.

Evaluating, analysing and comparing

Quality circles in primary care (EQuIP, Germany)

Quality circles aim to facilitate exchange of information and skills among peers. Usually 5–12 doctors meet regularly approximately once a month. Each group decides on its own objectives and methods using suggestions from guidelines. Some of the data sources used in quality circles are case reports, data analysis from charts, practice computers or documentation sheets, as well as video documentation. All kinds of topics are chosen without restriction, including description and documentation of the individual practices and comparison with colleagues, exchange of experience, quality review of practice performance, application and critical adaptation of existing guidelines.

Methods for quality improvement

Many examples in this book are taken from “Tools and methods for quality improvement in general practice”, compiled by EQuIP (Alles et al. 1998). Even though the examples are from Europe, we trust that they can inspire you and provide practical examples for family doctors around the world. It is important to remember, however, that doctors from different continents, countries and local areas have to make adaptations according to their own needs and culture.

The aspects of quality improvement shown in the quality cycle and discussed in the Tools book as different steps are:

- choosing the topics;
- collecting data on performance;
- reflecting on the results: evaluating and comparing, and
- changing work processes.

Each step can be made alone or combined with others. Guidelines and standards can be used in the stages of data collection and reflection on results. At the final stage, the full quality cycle combines all steps to a quality program, which then can be used as an example when the activities are directed toward new topic areas.

Choosing the topics

Quality improvement starts with choosing a subject to focus on. There are many good reasons for choosing a topic, but it is important to keep in mind that it should involve a common problem, be large enough to be important, but small enough to be manageable. The results must be measurable, and improvement should be possible by realistic means and resources.

Collecting data on performance

Data collection tends to be the most time-consuming part of the quality improvement process, but it is essential. As written on the wall of an American quality expert; "In God we trust, from everybody else we demand data!" Practices with computerised patient records may be able to collect relevant data from their records, but most often the software systems do not support data collection for QI purposes directly from the records. There are, however, many other, fairly painless methods for collecting data.

Reflecting on the results

To evaluate how well we are doing, it's usually good to compare our own results against somebody else's data. In some countries it is possible to find national or regional data with which to compare certain aspects of care. But even in situations where we are evaluating new topics, there are ways of building alliances and finding friends who are willing to share and compare results, as shown by several examples in this book.

Methods for changing work processes

The most important job in quality improvement is just that - improvement. This is no easy task, and frequently a combination of several approaches works best. Often changes can be based on educational strategies and combined with traditional continuing medical education. Professionals should plan for themselves how they want to change their own work processes. In such process redesign, it is best to plan the entire change in detail and then implement all changes simultaneously, rather than making several small changes one after another.

Changing work processes

Quality prizes (EQuIP, international)

The objective is to support internal quality management work by external evaluations. The method was originally set up by industries, but is now modified also for health care units. It is an international project with national applications. So far the method is mostly used by hospitals, but the first primary care units are now preparing for quality prize evaluations. The units conduct a self-assessment in eight evaluation areas using pre-set criteria. They can apply for external evaluation when they consider their results good enough. Evaluators then visit these practices. In a yearly competition in each country, the best units are elected to receive prizes which are given out in a widely publicised ceremony. Courses teaching various methods for improving quality with the prizes in mind are arranged.

Guidelines

The development of our work by quality improvement is easier when based on solid clinical evidence. In many countries, family doctors have been active in preparing and maintaining guidelines that are designed for primary care facilities and for the types of patients consulting family medicine. To develop a valid and reliable guideline is hard work, and the energy that has to be put into this endeavour should not be underestimated. But the rewards for such work are great both on the local, national, and the international level. Developing, distributing and

implementing useful guidelines should thus be a major challenge for family doctors and their organisations everywhere. Guidelines can also provide excellent material for the clinical training of health care professionals as well as for continuous training of health care teams. Guidelines are discussed in more detail in Chapter seven.

Using the full quality cycle

The “iron test” of quality improvement work on the local level is designing and implementing a complete quality cycle in one’s own clinical practice, most often with a group of peers. The thought of doing such a project can be both frightening and overpowering, but actually carrying out the full quality cycle – from planning and measuring performance through evaluating the results to change in daily practice – has been a most rewarding experience for those family doctors who have invested in this activity.

Full quality cycle at national level

Quality assurance of primary care laboratories (EQuIP, Norway)

This method aimed to improve the quality of test ordering and laboratory techniques in primary care. In each Norwegian county, the Norwegian Medical Association engaged a medical laboratory advisor linked to the county hospital’s clinical chemistry laboratory. These advisors assist family doctors in securing the quality of laboratory procedures by visits, telephone contacts and written material. In addition a National Centre for External Quality Assurance in Primary Care was established. This is an external quality assurance organisation, which distributes blood samples to all family doctors’ offices where they are analysed using the regular office equipment.

The results are returned to the National Centre where they are compared to results obtained by reference methods, and to all other participants. Each participant then receives feedback reports telling whether the analyses were performed well, acceptably or poorly. Patient case stories are also distributed with the analytical material. The doctors are asked which tests they would request and how they interpret the results in each of these clinical situations. Individual feedback is given to each participant in how to improve their test ordering and on their practice laboratory. Of Norwegian Family doctors, 98% participate in this quality improvement method on a voluntarily basis.

Mentoring

Ships at sea use local pilots that have experience of difficult coast waterways. In health care, mentoring is nowadays used with the same purpose: when navigating new areas, discussions with a colleague who has been through a similar experience provide useful support. When a family doctor establishes a new unit, or transfers to manage a larger one, she can arrange to meet with a mentor for a period of time, usually for eight to sixteen months. Both persons reserve about two hours every three to six weeks for discussion. The mentor should be from outside the organisation of the person receiving support, and may have a different training. A lawyer with long working experience from health care organisations, for example, may be an excellent mentor for a family doctor running a new unit providing institutional and day care services for the elderly. Any development questions can be taken up: team management, strategic planning, relating work life with family, or political dilemmas.

A good mentoring relationship can also grow out of a less knowingly arranged situation. Your parents' old friend may take an interest in discussing the challenges of your work with you every now and then, or a friend from school years who works in a different area from you may provide a helpful listening ear. Mentoring does not need to take place during a crisis to be useful, nor does it necessarily end after the crisis has been solved. An important aspect of mentoring is that both parties find it a nourishing experience.

Environment

Teaching and learning as quality improvement efforts can be both challenging and fun when done on an individual level. To be truly effective and successful, however, such activities have to be based in a larger, lasting structure or framework. To be sustainable such an effort must build on willingness to participate in QI activities at a personal level. A permanent structure is needed at the practice level to support these endeavours, and an understanding among the local and national professional and political bodies must exist to finance and facilitate QI activities. These challenges are discussed in the following chapters.

Travel tips

- A culture of quality begins with commitment to lifelong learning.
- Teaching is necessary but not sufficient for learning.
- We construct new knowledge by reflecting on our actions.
- Learning by doing turns mere information into practical and usable knowledge.
- Working through a quality cycle is an effective way of learning.
- The context in which we learn determines how we will be able to use that knowledge in the future.



Chapter 6

Collaboration for quality

Health care is a joint effort, and quality improvement in health care is an exercise in companionship. Our fellow travellers can be family doctors or other health professionals with a specific training; patients certainly are in the same boat, and health care managers charter our tours. Health policy makers act in many respects as travel agents, designing routes and arranging for different modes of transportation. This part of our travel guide discusses teams within primary care units, work in task-based teams, patient participation, management as a quality tool, and collaboration between organisations.

Teams

Primary care is increasingly provided by teams of professionals. While the single-handed practitioner in many countries still continues to be the basic primary care provider, many family doctors are getting together into group practices and hiring receptionists and practice nurses to share the work in a meaningful way. Others are arranging their primary care services from health centres employing a variety of professionals. And even those of us who work from their own solo practices need to communicate with other health care professionals in many different ways. They work with teams across services and sectors, for example with hospital specialists or home care facilities.

Comprehensive primary care services that include prevention, health promotion, cure and rehabilitation require input from many kinds of experts. Although family doctors provide many of the core actions, it is usually both cost-effective and pleasant to share tasks with nurses, health

visitors, physiotherapists, dieticians, and receptionists. A typical, publicly funded primary health centre in Finland covering a population of 25 000–30 000 people offers a wide range of expertise and services. Besides doctors' office and on-duty consultations that are supported by their own laboratory and imaging department, they run maternity and well-baby clinics, school health services, home visits, and provide occupational health care for small enterprises in the area. In addition, they have a sizeable bed ward with both long-term and acute care. The professionals employed by this health centre would number well over a hundred (see box), and they would work together in many different types of more or less permanent teams.

Different primary care professional teams

Australian primary care team		
4-5 doctors	2-3 receptionists	1 practice nurse
Finnish health centre team		
10 doctors	25 nurses	35 nurses' aids
6 receptionists	3 physiotherapists	5 health visitors
3 laboratory technicians	2 imaging technicians	1 speech therapist
1 dietician	1 psychologist	½ social worker
20 persons in kitchen, cleaning, and security services		

Teams are usually born around a task; this can be a temporary, time-limited one (such as caring for a dying patient at home) or a more permanent task defined by an organisational arrangement (such as health care for all primary schools in a community). Temporary teams function well when most members know each other from earlier work. This facilitates flexibility in job sharing while basic responsibilities remain clearly divided. Problems may arise – as in other teams – if the task is not well described or if it changes notably during the team's lifetime.

Permanent, task-oriented teams often have clear basic rules for their work. Regular joint meetings are essential even then, so problems can be sorted out in their infancy. The problems of permanent teams include vague and changing membership, loyalties to one team overriding

commitment to others, and missing parts of work if rules do not support equally all team responsibilities.

The fact that physicians practice in interdependent relationships with others means that quality efforts must involve all members of the care team. Experience with teams has shown that:

- People are more likely to do what they have helped to plan than what has been planned for them by others.
- Actual improvement in the performance of a practice more often depends on the efforts of the entire staff than that of a single professional.
- Teams that learn quality improvement techniques together are more likely to apply them.

Organisations that encourage teamwork and a learning philosophy, where new knowledge and risk are pursued rather than avoided, are more likely to adapt to their ever-changing environment and succeed. Leadership is crucial to helping the entire team understand the value of adopting a quality improvement approach.

When a team is first exposed to quality improvement concepts, there is often resistance and concern about additional workload. For this reason, it is important to begin with a project that can be readily accomplished by the team and then to build on current capacity. A common mistake is to attempt to “fix everything at once”. Sustainable success usually requires starting with a modest project that is achieved and generates momentum toward another project and then another and so on.

Team development

Newly formed teams do not start out by being fully productive. Team forming is often a slow process of getting to know each other's competencies and personalities. Time spent together as a team, both at work and outside it, in pleasant joint activities, helps the team grow together. The most common problem at the *forming stage* is insecurity - about aims, membership, leadership, or borders between the team and

the outside world. If insecurities remain unresolved, the resulting non-commitment can destroy a team in the bud.

Clear projects at work, with specific aims and responsibilities, are what teams are for. Teams create their own rules and norms best in action. Outside pressure can weld the team together here as at other stages of development. During this *norming stage*, team development may falter if “our rules” are overemphasised against the rest of the world. In worst cases, the team may norm so strongly within itself that it stops listening to and looking at others and so formulates a non-realistic picture of the world outside.

Healthy team development next leads to *storming*. Team members that started out as individuals, and accepted joint visions and work plans at the norming stage, now find their individual strengths and separateness again. The differences of opinion are best discussed out in the open, and usually common ground remains sufficiently wide for productive collaboration. Only after surviving these three stages, the mature team starts working smoothly – *performing*.

Teams in their basic form are fairly limited in size, ranging from as few as two or three members to rarely more than twelve. Larger teams, from 6–8 members on, tend to split into smaller functional units. In a well-functioning team, the borders between subunits are flexible and new tasks create new effective groupings.

All teams have a leader. Optimally, the formally appointed team chief is also the one who provides direction and has the means to secure collective effort. Shadow leadership – where someone else than the formal leader is regularly making decisions for the team – can arise based on seniority (in age or experience as group member), informal position in the organisation (for example, with family links higher in the hierarchy) or simply in situations where the leadership is unclear or the formal leader fails to take responsibility.

Other roles in the team can include

- the innovator – fluent provider of new ideas;
- the housekeeper – taking care of everyday items;

- the networker – with frequent and useful contacts outside the team;
- the monitor – critical thinker evaluating ideas and work; and
- the finisher – checking details and pulling projects the last bit of the way.

Team approach to decide on primary care policies

Accreditation of hospitals has been established in Australia for many years. A new national strategy aimed at improving the quality of care in primary care was launched in 1992. This included a controversial proposal to develop accreditation of practices, although individual family doctors were already “accredited” through registration after vocational training and participation in the quality assurance and continuing education program.

The development of an accreditation system depended wholly on a team approach. Family doctors’ organisations, consumer organisations and government together allocated tasks to different groups.

- Standards development was delegated to the professional body of family doctors. They collected input widely from their members, consumers, allied health professions, practice managers and government. The committee that reviews and revises the standards includes representatives of doctors (city, rural and academic), consumers, practice managers and allied health professionals.
- Issues of community and patient expectations of quality in family medicine were delegated to the Australian Consumers’ Health Forum. This peak consumer body conducted research with government funding, and GP groups provided steering committee input.
- The negotiations about the accrediting body and the nature of the accreditation process concerned all key stakeholders and required a task force with all players as equal members, since all needed to accept the final agreement.

The accreditation body structure reflected respect for the concerns of team members. The body, Australian General Practice Accreditation Limited, is an independent, non-profit company “owned” through its membership structure by the profession. The needs of consumers and government for transparency and accountability are met by ensuring them a number of seats on the Board of Directors.

A successful team has a balance of different roles; a team too strong in any one role performs less well. Besides these categories, team members can take on traditional social roles (the mediator, devil's advocate) or play differently in the ways they exercise their strengths. One way of looking at team functioning is to distinguish between assertive, aggressive and passive behaviour.

Productive teams tend to have a clear task division for each problem at hand, but are flexible regarding their roles when necessary. Similarly, while the basic team roles are often permanent, members can temporarily take responsibility for each other's roles, for example, during vacations.

Mature teams are also capable of accepting changes. When team members leave or new ones join the team, a new balance will result. Functional teams see such changes as an opportunity for re-evaluation and can shift tasks and responsibilities meaningfully. A good team knows it is worth more than any of its members alone.

Integrating the patient in quality improvement

Patients are increasingly acknowledged as crucial collaborators in quality improvement in family medicine. As the principles and practice of quality improvement have developed in other sectors or industries, the customer has become central and much more powerful. There has been new emphasis on customer focus – in knowing what the customer needs and wants, not just in terms of products but in terms of interactions and ongoing relationships. Consumerism encompasses a wide-ranging cultural change that affects health care and family medicine no less than fast food outlets. Health care professionals and patients face a whole new set of values, expectations and priorities. These challenge existing cultural norms and power balances within the doctor-patient relationship, and all those involved struggle to adapt.

To participate fully in quality improvement, patients can take on a range of roles in different stages of the quality improvement cycle. Patients' opinions about their health and quality of life help to determine health outcomes and quality of care. They can provide unique assessments of quality of care and should be involved as partners in quality improvement,

both in the doctor-patient relationship and in projects at the practice, local, regional or national level. Involvement of patients as partners in all stages of quality improvement fosters teamwork and collaboration in achieving quality. Patients can be powerful allies in achieving health system changes towards mutually agreed goals.

Patients do not have simple, homogeneous or static views on quality of health care. They bring different perspectives and expectations, depending on whether they are seeking care (potential patients), receiving care (current patients) or involved in community discussions about care (patient representatives). Their definitions of quality and evaluations of care are context-sensitive, and patients make trade-offs between different attributes of quality in different circumstances.

For example, continuity of care might be highly valued in seeking care for a chronic disease, but access and availability may be higher priorities in an acute but minor illness. Similarly, different groups of patients (perhaps those who are younger, in poorer health, or disadvantaged) give different emphasis to different aspects of quality. For example, patients receiving care from several sources and a number of health professionals value the ability of the family doctor to work effectively in the team, communicating well with other team members and co-ordinating care given by various providers.

Patient roles in defining quality

The philosophy of patient-centredness shows how individual family doctors can involve their patients in quality improvement within the consultation. We need to make sure that we deal with the patient's agenda and aim for treatment goals that the patient shares. For example, a family doctor may provide excellent drug treatment for heart failure and undertake evidence-based secondary prevention for cardiovascular events but still fail to deliver quality care if the patient's underlying fears and loss of independence are not dealt with. Research into patient attitudes shows that people value doctors who tailor their management advice to individual patient's needs, which change over time.

At the practice level, there has been considerable research into patient expectations and values of what constitutes quality health care. This includes both attributes of individual doctors and aspects of practice or service organisation. Much of this research has used self-completed questionnaires with mainly closed questions (that often rank certain statements about quality) and has studied patients who are already seeking care: they have surveyed patients in doctors' waiting rooms. There are fewer studies that have used qualitative methods or surveyed potential patients outside the practice. These types of studies tend to emphasise the flexibility of patient expectations and the rich depth of how these expectations and values inform choices of care and evaluations of quality.

Some of the attributes of quality in primary care that are consistently highly valued by patients include:

- the doctor's technical competence, for example using accepted knowledge and guidelines, participating regularly in CME, critically evaluating the usefulness of treatments;
- having enough time to listen and to explain – which does not necessarily depend on the length of the consultation;
- interpersonal skills of the doctor, making patients feel free to tell him about their problems;
- provision of information by the doctor, telling patients all they want to know about their problems, how to take medications and the purpose of tests and treatments;
- accessibility to care, being able to provide quick service in case of emergencies or making an appointment at short notice;
- continuity of care;
- offering preventive care services and health promotion, not just curing illness; and
- ensuring confidentiality of patients' personal health information.

Nationally, patients and their representative groups have a valuable role in identifying and evaluating information for quality improvement. They should increasingly be involved at the health policy level, shaping the agenda for research in health care to inform quality improvement in areas that matter. One of the limitations of evidence-based medicine is the lack of evidence in many areas where there is potential for quality

improvement. In several countries, national guideline development specifically explores patient preferences when comparing health benefits and harms and health outcomes and costs. Guidelines for developing clinical practice guidelines usually call for patient representation on the multidisciplinary panel that weighs the evidence and develops recommendations.

How patients can help to assess quality of care

Traditionally, patient satisfaction surveys have been used as one method of quality assessment. It is important to ask questions about aspects of the service that matter to patients rather than those that doctors think important. The attributes of quality identified above are a useful starting point. They were largely derived from a survey conducted in eight European countries (EUROPEP) as a first step in developing an instrument for patient evaluation of family doctors and their practices. The instrument focuses on the cognitive function of evaluation of care rather than the emotional reaction of satisfaction with care and has been validated in eight European countries.

Self-completion surveys are popular because they have reasonable validity, particularly when based on good research, and are quite feasible within any practice. They require modest resources of materials (for paper and photocopying), time (distribution and analysis) and expertise (design and analysis). Simpler methods, such as suggestion or complaint boxes, are not as representative or comprehensive. Other methods could have greater validity but require more resources – telephone surveys of randomly selected patients, follow-up after consultations, in-depth interviews or patient focus groups. Patients may feel more comfortable with independent surveyors in these circumstances, which further adds to the cost.

Patients' role in achieving improvements

Family doctors who take a patient-centred approach already involve their patients in improving individual quality of care. Good communication, providing information and sharing decision-making all help to create a

partnership with patients, so that they become stakeholders in their own care and work to get the best result.

Practices can establish patient advisory groups, committees or panels to share in the challenge of quality improvement. These do not replace strategies that identify what aspects of quality matter to the practice patients or those that gather information on how patients evaluate the practice and its doctors overall. Instead, they help to ensure that the patient's agenda is part of the quality improvement process. At the national level also, patient involvement in quality improvement includes advocacy for the patient's agenda.

Consumer organisation keeps patients in focus

The participation of an important health consumer organisation in the development of primary care standards and accreditation in Australia ensured that the patient perspective remained at the centre of the process. The Consumers' Health Forum conducted research into how patients viewed quality of primary care – what they expected and wanted, and also what they thought they received. This helped inform the drafting of the standards and the feedback on successive drafts.

The standards are organised around patients' experiences – access and availability, communication, what primary care is like, how care is continued over time and co-ordinated with other parts of the health system and the rights and needs of patients. The usual matters of the doctors' credentials, practice administration and physical facilities are also included.

Within the standards, there are indicators that can be used to assess whether the practice meets each standard. More than 25 indicators must be measured through patient survey feedback to confirm if the standards are being met.

There are two consumer representatives on the committee that continues to evaluate and revise the standards. They keep the patients' perspective at the forefront of ongoing standards development. The Consumers' Health Forum is also represented at the board of the accreditation company, and their director is a member of the committee that decides whether a practice receives accreditation.

Managing for quality

As highlighted earlier in this book, the initial approach to quality improvement in family medicine focused on the quality of the doctor – usually in terms of their basic competence through education and training. Quality problems traditionally attracted the recommendation that doctors needed *more* education. The quality improvement methods for individual doctors, and the concept of education, became more sophisticated. Later, the role of other health care professionals and the need for teamwork was acknowledged. And a little further on the journey, the patient's perspective of quality was recognised and the patient included as part of the quality improvement team.

The last aspect of quality improvement to receive attention is the management perspective. This emphasises a comprehensive and organised approach to quality initiatives that is continuously applied. It covers not only the individual components of the system – doctors, allied health workers, patients and teams – but the relationships between them. Management is built in to the system, whether we look at a single-handed practice or a large multi-centred health service. The management approach is about improving every aspect of health care continuously. In this section we will focus on using quality management in the practice and the region.

Managing for quality in family medicine involves a number of straightforward steps – thoughtful planning, creating the right organisation and facilities, developing effective systems and managing your human resources.

Analysing the context of a health service

This can include thinking about the health care system (such as availability of local health services or ratio of family doctors to population), about future trends in health delivery (for example new diagnostic methods or new health financing systems) and about social or political change (like the rise of consumer movement or effect of opening borders to refugees). The context may include various groups who have a legitimate interest in the performance of the service – stakeholders such as funders, government, and industry.

Context analysis also requires thought about the current resources of the service – finances, people, skills, etc. Some people use a structured framework to analyse their context – they look at the current Strengths and Weaknesses of their service, and the Opportunities and Threats in their environment (SWOT analysis, see Chapter four). Help may be available from unexpected sources, as in the example from Australia (see below).

An educational visiting program for quality improvement

Australia has conducted several randomised controlled trials demonstrating that academic detailing effectively promotes good use of medicines. This local experience and expertise has recently been used to develop a national service for family doctors through a non-profit organisation – the National Prescribing Service (NPS).

The NPS is an independent company whose goal is to improve the health of Australians through quality prescribing of medicines. Its member organisations represent health professionals, consumer and research bodies, government, and industries.

The NPS provides access to independent, critically appraised information on medicines to prescribers and consumers. It offers a range of educational services, including academic detailing. In the first year, about 2,500 family doctors received visits by educational facilitators. These facilitators undergo a formal training program that is part of a Masters Degree course at the University of New South Wales.

The course builds on the idea that educational visitors establish and maintain a trusting, long-term relationship with doctors in order to provide independent drug information effectively. The course covers:

- communication and interaction skills training in the techniques of educational visiting/academic detailing;
 - the process of gathering and critically evaluating the available literature on therapeutics to prepare topic packs for doctors; and
 - teaching strategies that are effective in promoting changes in clinical behaviour.
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Knowing the patients and populations, their needs and expectations

In planning your work, you need to think about who will be using the service in terms of their health status, their values, their needs and their expectations. For this purpose, you can draw from two very different concepts – population health and marketing. Family doctors in many countries are broadening their focus to include a responsibility for populations through preventive health care as well as the traditional responsibility for individual patients with curative health care. This should be built on understanding the social, industrial and economic circumstances of patient populations since these factors influence health status and participation in health care.

For example, rural areas often have older residents, lower education levels and per capita income, higher unemployment rates and more low-income occupations than urban areas. Rural people are often at high risk for accidental injury and trauma, related to pursuits such as fishing, farming, mining and forestry as well as motor vehicle accidents. Indigenous peoples may suffer from specific health problems more often than the general population. Many basic indicators of the health status of your target population usually are available for planning for better health care quality.

Knowing your customers is also crucial for marketing. Marketing is different from selling, where producers try to convince customers to purchase a product. Marketing is more about knowing the customers, their needs and expectations and trying to meet these. It involves helping customers understand what they can expect from the service, then making sure the service delivers.

Health providers – whether regional primary health care teams or local practices – can ask patients about their expectations of the service or their evaluation of its performance. This can be done using patient surveys, feedback and suggestion boxes, patient panels or other methods. The literature about patient preferences shows some remarkable consistencies between countries.

Deciding and prioritising objectives of the service

Larger family medicine clinics or primary care health services may choose to use a formal process to determine their mission and vision, goals and objectives. Smaller practices and individual family doctors may find these words confusing or alienating or see the process as time wasting. However, it is only common sense to make sure that all those involved in the practice know what the practice is trying to achieve and how it should work in theory. For example, what is most important – patient satisfaction, good medical techniques, happy staff, or financial success? Ideals generally need to be analysed a bit further to see how different components contribute to the whole. This is essentially the process of defining a mission, vision and goals, as discussed in Chapter four.

Primary care – as health care in general – always operates within resource constraints. In striving for improvement in quality, few services can do everything needed at once. It is important to set priorities, so everyone knows what is essential, desirable or optional at any given time.

We need to think in broad terms about how to achieve our objectives. For example, if one of our priority objectives is financial viability, we could achieve this by providing many services at low cost, or charging a higher cost for fewer services. Or in trying to provide the best technical care, we could focus on modern equipment, new knowledge or enhanced skills, depending on needs. The choice of strategies to achieve any one objective does not occur in isolation. Appropriate strategies depend on all the information gained from the planning process to date – the general situation, including resources, customer needs and expectations, goals and other objectives.

The magnitude of the planning process should be in proportion to the size of the service. But some structured and open process should still occur – even for a small practice of two or three people. An implicit assumption that everyone shares the same ideal picture and agrees on how to get there and what steps are most important can lead to confusion or even conflict.

Suitable organisation and facilities

When you are clear what you want your health service unit to achieve, you can look at what you need to make this happen. This is often a process of breaking down the broad strategies into specific functions or tasks. From this breakdown, you can begin to decide who will do what with what equipment.

For example, a large family practice wishing to provide systematic preventive care will need good information management to be able to assess and document patient risks. They will need access to evidence-based guidelines for preventive care and timely patient reminders for preventive activities. This will require appropriate infrastructure (such as computer and database packages) and staff organisation (for example, naming one staff member as primarily responsible for managing information). To give another example, a strategy to make the practice very patient focused requires all staff to be accountable for this value in the practice.

The organisational structure defines for each staff member their position, its duties and responsibilities and its relationship to all other positions. It is important that an organisational structure:

- is based on functions, not personalities;
- clarifies the role of each individual team member; and
- lets every team member know what they are accountable for.

Often small practices have poorly defined roles for staff, with all staff being jointly accountable for all functions. If everyone is doing everything, then who is accountable for anything? This can lead to duplication of some tasks, omission of others, and even interpersonal conflict. Problems of role definition and role clarity are also common in the interface between primary and secondary care. During quality initiatives, there is increased need to pay attention to the organisational structure and the relationships between different staff positions.

Management systems

The value of systems is in helping to provide predictable performance *every time*. For example, in a primary care practice, management systems will help a new staff member or locum doctor fit rapidly into the practice routine to ensure continuing high quality care with minimal disruption during the learning period. Systems also allow for normal human behaviour – fatigue, stress, misunderstandings, distraction. System solutions help us to stop expecting that people should be perfect. They can ensure that all tests and referrals are followed up appropriately without needing to depend on exceptional feats of memory or good luck.

System solutions can involve:

- altering the physical environment; for example, placing containers for sharp and contaminated waste well above floor level to prevent potential injuries to children, rather than relying on constant vigilance and suffering disrupted consultations;
- identifying, documenting, encouraging and supporting human behaviours that more predictably lead to desired results; for example, negotiating and defining shared care arrangements between family doctors, mental health nurses, psychiatrists and psychologists; and
- managing information to support and to monitor other systems; for example, integrating evidence-based guidelines into computer records systems, or auditing patient waiting times in a clinic to monitor the effectiveness of the appointment system.

System solutions do not require sophisticated information technology. For example, fostering patient empowerment and patient-centredness will require family doctors to learn the appropriate skills and attitudes. Other necessary ingredients may be:

- an appointment system that is flexible to meet patient needs for urgent or longer consultations;
- allowing sufficient time for communication within consultations;
- available and accessible information resources for patients, so that they can understand and learn about their own health care; and
- a mechanism for patients to provide feedback and suggestions for improvement.

However, information technology increasingly offers new horizons for improving management systems. Many benefits can be reached through:

- access to timely, relevant clinical information through evidence-based guidelines for professionals and patients alike;
- shared or compatible information systems or records to facilitate co-ordination between health care units, such as joint health summary record for primary care practices and hospitals available over Internet;
- systematic preventive health care by using registers and risk profiles, reminder and recall systems;
- monitoring performance to detect potential quality problem areas.

Accreditation: Managing for quality

In developing a system for accrediting general practices in Australia, there was some pressure to focus solely on the practice structure, since this was the approach taken in the existing hospital accreditation system. This approach was attractive, because the presence or absence of structures is easy to count. The number of rooms, equipment, employees and their qualifications are all readily measurable.

But practice accreditation needs to look at all essential aspects of quality to gain acceptance. It also had to cover communication and trust, respect for patients, the evidence base of decisions, continuity and integration of care. The process of accreditation was also meant to be educational, not just a routine pass-or-fail assessment. The standards help professionals to see how good management contributes to good care. Standards on managing for quality that are important to patient outcomes include:

- Planning opening times, staffing levels and appointment systems to ensure that care is available and accessible to patients.
 - Ensuring good communication with patients by allowing enough time in consultations, providing written information about the practice as well as about medical matters and being responsive to patient feedback and complaints.
 - Sound information management to ensure safe care and to promote continuity in and good co-ordination of care.
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Human resources

Any health service depends on the people working in it. Each staff member contributes to the overall quality of the service. In health care, we often over-emphasise the importance of selecting the “right” people. We then find our initial expectations are disappointed, as apparently ideal staff members fail to perform. How can they deliver, when we have not helped them know what is expected and ensured they are able to do it?

Human resource management requires continuing attention to training – both in specific tasks and in the values of the organisation. Delegation with ongoing support and supervision is necessary. Check that you share understanding of the tasks delegated, and the outcomes expected. Make sure the staff members feel confident in their skills to achieve these outcomes. Also arrange smooth performance monitoring and feedback, including regular review on progress based on what was initially agreed.

Quality management of urinary tract infections

We often forget many allies who should be included in the quality process. The family doctor managing common infections needs to keep in mind the receptionist who takes the initial telephone call, the nurse who triages the call, the specialist who may be called on to manage complicated cases, and so on. The Deere Health System in the Midwestern United States developed an algorithm for evaluating and managing urinary tract infections.

As often happens, when the key steps were identified, much of the management process was streamlined and moved from the physician to other members of the team. In changing over to the new approach to urinary tract infections, the complication rates and costs went down and patient satisfaction increased. Involving all potential members of the care team in the process development and implementation process will increase dramatically the likelihood that the practice recommendations will be known, understood, and followed.

Collaboration between organisations

Professional associations can provide the focal point for members interested in quality; they can also offer education and networking opportunities, encouraging their members to tackle quality activities. For example, since 1992, the American Academy of Family Physicians developed a workshop on clinical policies that introduced participants to the concepts of evidence-based medicine and clinical practice guideline development. These weekend programs resulted in the training of nearly 500 family physicians that viewed themselves as advocates for a new approach to clinical information and practice. The participants also became resource persons who were trained in guideline methodology, including its strengths and weaknesses. They could well represent the Academy and family physicians when other organisations (e.g. American Urological Association) requested a family physician to serve on their guideline panels.

Organisations, like individuals, are more apt to collaborate when they see the potential for mutual gain. In care systems where family physicians are relatively isolated from other specialists, it may be difficult for either group to see much value in collaborating. In systems where family physicians relate often with other specialists and health care professionals, the importance of multi-specialty and multi-disciplinary collaboration is more apparent. Such collaboration serves the patients' interests best because it is likely to result in a more complete picture of the possible problems and solutions.

The importance of collaboration was seen in the clinical practice guideline panels sponsored during the 1990s by the Agency for Health Care Policy and Research in the United States. In this medical care system dominated by specialists, it was expected that the panel chair would be a content expert in the topic (a cardiologist in a panel developing a guideline on myocardial infarction). While all panels had such content experts, over time most of the panels also had a primary care physician as a co-chair. The family physician often brought important teambuilding and leadership skills as well as a holistic perspective that was more focused on the patients' overall interests. This guideline process has historical importance. For the first time in the U.S., it brought together physicians of different speciality backgrounds, along with other health care

professionals, and demonstrated to them the utility of the explicit approach and the necessity of the patient's perspective.

When multiple organisations work together, the explicit approach also forces participants to describe their values and identify the data or values that may be causing them to disagree. They are reminded of the need to stay focused on the patient, rather than their particular world view.

Patient power moves organisations

A small managed health care organisation (MCO) in Pretoria, South Africa came under attack from a large, well funded health care company. The small group consisted of a health centre with three physicians and a network of 15 other family doctors. They were contracted to serve the members of the medical aid scheme whose members were the lower paid workers of a large manufacturing company. Over a period of four and a half years the small MCO had offered a comprehensive health service at 40% below the average market price.

The large health care company had the support of the manufacturing company. It offered a cheaper service, which was marketed as superior. This would have entailed changing to a new medical aid fund and a new service provider. The patients and the workers however were smart enough to see the difference. Although their employer and most trade union leaders supported moving the medical care to the large company, the ordinary workers resisted. They maintained that the trade union representatives had been bribed. The workers went on strike for a day. They dismissed the union representatives at a mass meeting, stopped paying their union dues and elected a new health committee. This committee with the support of the workers overturned the decision of the manufacturing company who had already given notice to the small MCO.

Several members of the new health committee were patients with chronic illnesses who valued the relationships they had and the care they were getting. They were quite explicit about this and in the end neither the employer nor others could persuade them to change provider. In this case when patients stood together they were powerful allies to their doctors.

Specific organisations

There are a number of organisations dedicated to the improvement of health care services at the level of the clinician, several of which are active in multiple countries. Brief descriptions of some of these organisations follow.

WHO: The objective of the World Health Organisation (www.who.org) is the attainment by all peoples of the highest possible level of health. Traditionally, WHO has focused on public health activities. To advance health and quality of life through sustained development, WHO has identified four policy orientations for world action:

- Integrating health and human development into public policies
- Ensuring equitable access to health services
- Promoting and protecting health
- Preventing and controlling specific health problems.

WONCA: The World Organisation of National Colleges, Academies and Academic Associations of General Practitioners and Family Physicians, WONCA (www.wonca.org) is better known as the World Organisation of Family Doctors. Through its Working Party on Quality in Family Medicine (QIFM), WONCA has stimulated international co-operation in the education and collaboration of family doctors in efforts to improve healthcare quality. Regional networks have been formed in Europe and Asia-Pacific, with networks under development in Africa and the Americas. A number of regional workshops have been conducted to train family doctors in quality methods.

EQuIP: The European working party on Quality in Family Practice began in 1993 as a co-operative effort of several European colleges of family practice. EQuIP has grown to more than 30 member countries which send delegates to twice annual meetings where projects are developed and reported and poster and educational sessions are conducted. There have been multi-national initiatives developed through EQuIP including EUROPEP, a research project to examine patient perspectives on quality; a summer school in the Netherlands that offers training in quality techniques; and guideline development activities.

ISQua: The International Society of Quality in Health Care is an international effort to improve healthcare quality around the world. Its founding members were primarily hospital-based, although ISQua has increasingly turned its attention to the ambulatory setting. ISQua has endeavoured to apply the ISO standards (International Standards Organisation) to health care.

Travel tips

- Primary care is increasingly provided by multiprofessional teams.
- Clear tasks, responsibilities and aims facilitate good team performance.
- Patients are powerful allies in changing health care.
- Management systems, even in their simplest forms, support quality performance.
- Teams that plan changes together are more likely to apply the new, improved processes.
- Communication with other organisations is part of good management.



Chapter 7

Using information in quality improvement

Family doctors are increasingly using and benefiting from new possibilities that information technology (IT) offers for medical professionals. Primary care is on its way to becoming evidence-based, and the possibilities of using evidence in everyday work are increasing quickly. The new IT tools also allow for the collecting of data on our own practices, following patterns of care, and comparing with others.

The opportunities for introducing quality management into daily practice with this technology are obviously exciting and many people around the world are experimenting with it. Limiting factors include the access to computers, availability of information (too much altogether, but too little in useful format), and most importantly, time to plan the incorporation of these new possibilities into our daily work. A challenge facing us is inducing software manufacturers to incorporate QI elements into their systems and make them user-friendly.

Health care has always striven to act according to best available knowledge. Already the Hippocratic doctors wanted to use reliable data and passed their knowledge on both orally and in writing. Using information to change the course of disease some 2000 years ago was a remarkable change: people were moving from prayers and offerings to rational medicine. Diseases were seen to have natural causes, and treatments were beginning to be based on logic and experience instead of on magic and pleasing the gods (Fabre 1997).

In this chapter, we discuss the various ways of using information for quality work. The wise travellers to quality use these compasses and

maps to keep on the right track. At close range, we have our own patient records and other sources of performance data. In many areas, clinical practice guidelines are available to practitioners to use as tools for planning and comparing. And the wide world of the Internet gives us unlimited access to all kinds of information – beware of maps that may look nice but do not describe the terrain faithfully!

Evaluation and measurement

Evaluation and measurement are a part of travel. At the start of a journey, the traveller may want to assess the type of accommodation available at different destinations or the reliability of various transportation methods. This will generally involve some data collection and comparison with expectations and goals. While travelling, repeat monitoring often is needed – are we going in the right direction? Will our resources last the full length of the trip?

So it is for the quality journey, too. We must be able to assess and measure quality, if we want to improve it. We need to evaluate our own performance as family doctors, of other members of the health team, or to look at our organisation or the health system as a whole. And we need to compare the results against others.

Such evaluation is needed:

- at the beginning of any quality initiative – this allows us to see what needs to improve, to set priorities and decide on realistic goals;
- at the end of any process of change – to ensure that change is occurring in the right places and going in the right directions, and that no unexpected adverse effects are occurring;
- during ongoing routine operation – to monitor performance and confirm that new procedures or guidelines continue to be followed; and
- at regular intervals for re-assessment of needs, priorities and progress towards long term goals.

However, quality is hard to define and often difficult to measure. We must develop and choose valid and measurable indicators of quality. These then need to be followed using reliable and acceptable methods for data collection and analysis.

The faithful servant: Computer keeps track of quality

Examine some of the opportunities offered by the IT revolution. In many countries the increasing use of computer-based patient record and prescribing systems offers an entirely new approach to QI. An American family doctor relates a simple example: "In my own practice, I can enter into my software a selection of items which I wish recorded in relation to my diabetic patients. As I see patients, the software then collects these data automatically, with no extra effort on my part. When I have seen 100 diabetic patients, the system notifies me of that event.

Looking at my own data, I can see immediately how I am performing on my set of indicators – for example recording weight, blood pressure, peripheral pulses, random glucose levels, referrals for podiatric and ophthalmologic evaluation, performing measurements of urinary albumin at regular intervals. I can assess my performance against either a recognised set of clinical guidelines or a set that I have designed for myself or with local colleagues. I can also track my performance over time as and when I choose."

Indicators of quality

We cannot monitor or evaluate all aspects of care. Our ideas of good quality need to be translated into measurable items that reflect the most important aspects of quality to us. These will then become our quality *indicators*. Comprehensive evaluation of health care quality uses different types of indicators, to give a good overall picture of all aspects of care. A typical approach to assess the quality of any health service is to look at its *structures*, *processes* and *outcomes*.

Structures describe the resources needed for any service to work. They can include the number of trained providers, the buildings, the equipment or selection of available medicines. But they also include the

organisational structures – channels of communication and effective relationships between parts of a service.

Structures are relatively easy to assess. We can look at the buildings, count the number of staff, and examine the equipment. But do these things really make a difference to quality? There must be an obvious link or a strong chain of evidence between structures and health outcomes when we choose structural indicators. Certain structures can be justified as necessary but not sufficient ingredients of quality. Their lack creates obvious barriers to quality, but structures alone do not make an effective and efficient health service. It is the combination of structures that gives results: a nice health centre building does little to improve population health, if no personnel show up!

Processes of care cover what is done in giving and receiving care. The activities of both health care practitioners and patients have an effect on the process. *Process indicators* can look at technical care – appropriate medication prescribing, suitable diagnostic actions – or the interpersonal process, such as attentive listening and decision sharing. Process indicators are related to health outcomes more directly than structural factors. However, they seldom give direct information about the effect of our actions on the health of our patients.

Health outcomes are the ultimate judgement of quality for any health service – be it a single-handed practitioner or a regional primary care unit. The most valid assessment of the quality of a health service is through *outcome indicators* such as perinatal mortality statistics, morbidity from cardiovascular diseases, fertility rates, or the functional status of older people. These indicators typically change slowly, and results from health care action often are measurable only far in the future. It can be hard to attribute these results to health care alone, as changes in for example diet or environment may have even larger effects. Sometimes, it is useful to look at *intermediate health outcomes* instead – blood sugar control, vaccine program coverage or smoking cessation rates.

While governments and funders are often interested in outputs and outcome measures, these measures are difficult to use alone for quality improvement. They can point out broad areas of unsatisfactory performance, but they seldom specify what needs to be changed. For

example, in initiatives to manage hypertension, a high treatment failure rate might reflect inappropriate medication selection, poor counselling, disruptions in supplies, poor clinical technique, or even civil unrest. By selecting an appropriate array of structure, process and outcome indicators, however, researchers and managers can document areas where changes in services may improve outcomes.

Devising good indicators of quality is difficult. Indicators must be valid; they must be sensitive to changes in performance; and they must be measurable with available resources. Validity must be considered from the perspective of all the stakeholders in health services. The indicators must reflect important aspects of quality for patients, members of the health team and funders or managers. A narrow perspective will give a biased assessment that will compromise quality initiatives. Guidelines can include a list of essential indicators – the discussion on guidelines at the end of this chapter gives some examples.

Quality indicator development in Brazil

When the PROQUALI Project began to accredit the reproductive health units of community health centres in Northeast Brazil, the first step was to learn about quality from all points of view: the clinic, the health workers, the clients, and the community. With this information, planners developed checklists that cover service delivery, infection prevention, interpersonal communication and counselling, and information, education and communication.

The most difficult part of the eight-month process was reducing the list to 61 essential criteria that are considered the minimum needed to monitor the quality of every aspect of services. Such criteria now include, among others:

- the availability of information leaflets on all methods of prevention;
 - proportion of premature births of all deliveries;
 - offering necessary information at the first point of contact; and
 - providing a channel for client feedback.
-

Valid aspects of quality can sometimes be difficult to measure; measurable aspects of quality are not necessarily valid. For example, patient empowerment is harder to evaluate but also may be more important as an aspect of quality than patient satisfaction. Number of patients seen is easy to measure, but it does not describe how much each patient benefited from the consultation. Developing quality indicators requires finding the most meaningful aspects of care that can be realistically measured. This involves decisions about modes of collecting the data for quality indicators.

Data collection

Important criteria to consider when selecting data collection methods are their reliability, feasibility and acceptability. The method of data collection, conducted with available resources, must provide a dependable measure of the indicator without disrupting normal activity or being offensive. To achieve this, various sources of information can be considered:

- Patients, through patient surveys, feedback and suggestion boxes.
- Independent observers, as in accreditation visitors, simulated patients, videotape or audiotape recording and review.
- Health care team members, through interviews and self-report.
- Existing records such as attendance lists, patient charts, national registers.
- Administrative data like referral patterns, drug utilisation data.

To monitor a primary care program, the simplest and least costly way is to use existing sources of data. Even if data collection systems were not designed with quality measures in mind, you may be able to extract useful information from them. In Ghana, for example, managers used the registers listing scheduled return visits to calculate an important indicator of quality – the proportion of patients who do not return for check-up. Some computer appointment systems routinely monitor waiting times from registration to being seen by the doctor.

When existing data are not reliable or relevant, managers may set up new data collection systems. To investigate a specific problem, sometimes

a quick and informal approach is all that is needed. A manager might prepare herself to respond to a patient's complaint by observing, for example, how the receptionist talks with ten consecutive patients or by asking them how long they have been waiting. A more formal approach, however, such as the methods described below, is needed for routine monitoring.

Collecting performance data

Complaint systems (EQuIP, Slovenia)

The objective is to detect weak or strong aspects of care by receiving feedback from the patients. Complaint boxes are installed at the clinic to gather the patients' complaints, suggestions and recommendations. Patients are asked to fill in a short questionnaire (9 items) to express their dissatisfaction or satisfaction with the actual contact with the care provider. The answers are read, discussed and if possible acted upon by the staff on a regular basis.

Scorecards (EQuIP, The Netherlands)

Use of scorecards is a method to help family doctors to implement national guidelines in their own practice. The objective is to compare the actual performance of the doctor with the guidelines issued by the Dutch College of General Practitioners. Guidelines have been developed for more than 50 clinical subjects like asthma, psoriasis and diarrhoea. The guidelines are distributed to the family doctor as teaching programs including a scorecard. By completing the questions on the scorecard after each consultation the family doctor can check if she is acting in accordance with the guidelines.

Patient feedback

Patients have a valuable and unique perspective on the quality of care. They can provide information for many indicators of structure, process (both technical and interpersonal) and outcome. As members of the community, patients can define culturally appropriate behaviour – for example, whether providers should make eye contact or whether long waits are a burden or a welcome opportunity to socialise.

Patients generally place more weight on interpersonal relations, while a trained observer might focus on technical competence. Thus patient evaluations complement other assessments. Only patients can provide information about how well their needs and wants have been satisfied, and report on their ability to carry out decisions made in consultations. Health outcomes such as functional status, general wellbeing and mood, or symptoms reflecting severity of disease can only be measured by asking patients.

Information from patients can be collected at exit interviews, in focus-group discussions, through questionnaires or other survey methods, and by suggestion boxes. Patient exit interviews also can assess provider performance. Studies comparing observations of health consultations with patient exit interview have found that patients accurately report interpersonal relations as well as concrete actions by providers, such as measuring blood pressure or weighing a child.

Direct observation, video and audio recording and simulated patients

Watching consultations and recording the provider's actions on a checklist is a common way to assess processes of care, for example counselling and clinical skills. In a comparison of three monitoring methods in Malawi, observations proved to be more reliable than interviewing providers, and observers provided information on a wider range of activities than patient interviews. Direct observation has another advantage – observers can report on both provider and patient's actions and their interaction.

However, the presence of an observer does change the process being observed. Both doctors and patients tend to behave differently. More unobtrusive observation methods include videotape or audiotape recording of consultations. These require special equipment, although a simple tape recorder is relatively easy to acquire. Once patient consent to the recording process has been obtained, both doctor and patient rapidly become accustomed to the recording device and there is little distortion on the consultation process.

Another way to overcome observation bias is to use trained community members to observe providers while pretending to seek care. These

simulated, or “mystery” patients can be recruited from groups that face special service delivery problems (for example, adolescents or ethnic minorities) in order to explore how providers treat different patients. While most often used for evaluation or research, the simulated patient approach also can be used for routine monitoring. Cost is an important consideration if simulated patients are employed.

Medical record audit

The medical record has legal standing in many countries. It is a common source of information for assessing quality of health care, and can provide data on patient symptoms, examination findings, diagnoses, treatments, tests and referrals. From this, inferences about process of care and some intermediate health outcomes can be made.

Asthma audit in Australia

Individual family doctors in Australia used both their medical records and a patient survey to collect process and outcome data about asthma quality indicators derived from a national guideline.

The record audit looked at the doctor's performance in:

- assessing lung function and the severity of asthma;
- identifying trigger factors;
- prescribing appropriate medication; and
- educating the patient about their asthma.

The patient survey asked questions about health status and patient empowerment regarding their asthma, looking at:

- waking at night with asthma;
 - use of relief medication > 3 times/week;
 - hospital admissions for more severe asthma; and
 - patient's understanding of emergency plans, medications, and trigger factors.
-

However, the quality of medical records is very variable. Indeed, the completeness and appropriateness of the medical record is often the subject of quality improvement initiatives. Even when the general quality of records is good, the process or record review for representative numbers of patients takes much time and effort. Comparisons between medical records or patient encounters and observations of the same encounters show that what is recorded is likely to have happened, but what is not recorded may or may not have occurred.

External inspection

Accreditation and inspection programs typically employ outside inspectors who are presumed to be objective and have a broad range of experience and knowledge. They can bring a new perspective that identifies problems and offers solutions that insiders may miss. Accreditation generally relies on inspection teams who visit a service site and check an extensive list of indicators. They review the entire operation of a facility, including support functions as well as patient care.

Accreditation of Family Health Service in Brazil

A growing number of developing countries are establishing national accreditation programs to manage quality. Most accreditation programs work at the hospital level, but the PROQUALI Project has adapted the approach to the clinic level in Northeast Brazil. State accreditation teams, made up of medical professionals, visit the health units of participating clinics every 6 to 12 months. Over the first 14 months, accreditation scores at the five pilot clinics improved, on average, from a baseline of 13% of quality criteria met to 94%. Accredited clinics – those that score 100% – can display a quality seal and will be promoted in community campaigns.

Inspections often look chiefly at structural indicators – facilities, organisation, inputs and outputs. However, it is both possible and desirable to collect data on process and even outcome indicators. This often involves collecting data from multiple sources to gain several

viewpoints on more complex indicators to make an assessment. Outside experts may not fully understand the local situation or be able to gain the trust of staff. This may cause staff members to conceal problems from inspectors and reject the recommendations.

Evaluating, analysing and comparing

Practice visiting (EQUIP, Belgium)

The objective here is for family doctors to learn about certain topics from each other's experiences, to focus on practice problems and to formulate a plan for change. The doctors visit each other's practices for 4-6 hours. Before a visit agreements are reached concerning the concrete time schedule and which aspects of care will be observed. During the visit a menu-card is used, containing structured checklists of relevant items for practice observation. After the visit feedback is given to the visited doctor and a report is prepared.

General practice accreditation visits in Australia

Practices who apply for accreditation receive information about the quality standards for practices and a self-assessment kit. When they are satisfied they meet the standards they apply for a formal survey visit.

Survey teams comprise both family doctors from outside the region and often practice managers. They seek data on how the practice compares to the standards from many sources:

- interviews with doctors, nurses, practice managers and receptionists;
- review of practice manuals, patient information sheets, medical records, appointment schedules;
- feedback from a patient survey about key quality indicators;
- direct observation of facilities, equipment, management systems; and
- review of patterns of practice from health insurance data.

The final assessment is a peer judgement based on all available data.

An alternative internal approach is for staff members to assess their own facilities. Their familiarity with the local situation can help them interpret data, broaden the range of problems identified, and suggest practical solutions. Internal assessments also give staff members

“ownership” of the results, so that they are more likely to make recommended changes. However, sometimes subjectivity and complacency can prevent admitting problems or finding solutions. Recognising that both approaches are useful, quality control experts are adding elements of self-assessment to the more conventional external inspection approach. Linking with other practitioners can also provide an answer.

Individual self-assessment and peer review

Self-assessment can be a useful way to monitor quality of care. It is certainly simple, although not as objective as other data sources. It can be combined with peer review to add more objectivity and also a sense of peer support. These techniques have proved to be both accurate measures of provider performance and effective forms of feedback that can supplement or substitute for outside supervision.

Self-assessment for allied health personnel

In Angola, where long-running civil war prevented regular supervision of health workers at rural clinics, a self-assessment checklist helped maintain the health workers' sense of direction and purpose.

The Indonesian Midwives Association compared self-assessment with peer review by trained midwives and with outside observation. They found that the three approaches provided comparable information. Feedback from peer reviewers, however, led to substantial gains in performance that were not seen with self-assessment or outside observation.

Routine statistics

Routinely collected data from health services can be used to monitor quality, for example by calculating monthly variations of service contacts. Local service managers or clinic staff can do this. In some countries, individual and regional or national service statistics are available through

health insurance or government data – for example drug utilisation or test ordering patterns.

All routine service data need to be interpreted with care. Their primary purpose is not as quality measures. Summary reports and graphs can be analysed to show trends or to compare facilities or individuals, but these analyses are not quality assessments. Sudden changes or extreme variation in a service statistic should prompt a focused quality assessment using more valid quality indicators.

Management information systems can be designed specifically to capture and monitor quality indicators. Although this sounds like an ideal way of monitoring quality, it can be costly to set up and difficult to operate. Poorly designed systems will collect few data that truly reflect service quality. In the end, the quality of any data is only as good as the quality of the professionals that provide it. Unless those providing the primary data can directly use it to evaluate their own work, it is unlikely that the results are complete and comprehensive. Easily available but unreliable information can be worse than no information at all.

Use of quality data in Situation Analysis in Burkina Faso

A widely used approach to assessing the quality of family health services in an entire organisation is the Situation Analysis, developed and managed by the Population Council. In a Situation Analysis trained research teams collect data from a representative sample of facilities for about six weeks. A standard Situation Analysis includes observations of consultations, interviews with patients and providers, a review of service statistics, and an inventory of equipment and supplies.

A Situation Analysis reports on how well a program's subsystems are functioning and makes recommendations. Often, however, program managers have not made systematic efforts to address the weaknesses identified. In contrast, the 1991–1992 Situation Analysis in Burkina Faso prompted the development of a long-term national plan for family planning and maternal and child health services, new training curricula and reference materials on counselling, reorganisation of the flow of contraceptive supplies to the regions, and more.

Guidelines

The main aim of clinical practice guidelines is to support and promote good clinical practice. They are meant to be used as a support for decision making between professionals and patients. The following text is based on the upcoming Council of Europe guideline on guidelines, which has been designed by representatives from a number of European countries with very different health care systems.

Many countries have created guidelines production programs that provide excellent, evidence-based and regularly updated information on a variety of medical issues. Many guidelines are also produced as single efforts, often by specialist societies. Typically, the topics cover common health problems or discuss issues where variations in quality of care are apparent or new technologies are emerging.

Guideline on diabetes

(EQuiP, Czech Republic)

In the Czech Republic, like in many other countries, Type II diabetes (NIDDM) has up to date been treated almost exclusively in large diabetes centres. This is now changing; more and more family doctors accept the responsibility for the care of NIDDM patients. Representatives of the Czech Society for Diabetes Study, the Society of General Medicine, and the department of general medicine and diabetes study at the Postgraduate Medical School examined the options of providing care to NIDDM patients in the country. A guideline for this group of patients was drawn, stressing the care-giving role of the family doctor, and a course in diabetes care based on the guideline was arranged for them. A final examination at Postgraduate Medical School after completing the course is the prerequisite for family doctors to be allowed to treat NIDDM.

Guidelines are easiest to implement and most readily accepted when produced by multiprofessional groups in a systematic, independent and transparent fashion. End user involvement through a wide review or a test of the pilot version is recommended. Family doctors and their

organisations are usually actively involved in both the production and adaptation of guidelines. This is indeed a priority area for lasting effects on health care quality.

Guidelines

Electronic guidelines for primary care (EQuIP, Finland)

In the 1980s and early 1990s guidelines were mostly written by hospital specialists. There was a great need to collect guidelines to family doctors into comprehensive, easy-to-use, and short format and to edit guidelines to be suitable in primary care. Since the beginning of 1990s the Physician's Desk Reference and Database has been published in Finnish, covering all medical topics that family doctors may encounter; to date more than one thousand short and practical guidelines have been included.

Guidelines are produced by a primary care editorial team consulting specialists when needed. The project is supported by the scientific medical society. A CD-ROM version is updated three times yearly and a book published biannually. An English version of the Physician's CD-ROM is also available (see www.duodecim.fi/english/). Written educational material, a picture collection and patient versions of several guidelines are distributed also through the Internet. Evaluations show that users are pleased. The database is used daily by the majority of family doctors across the country.

Optimally, guidelines are written to reach multiple audiences and are available in suitable formats for professionals, patients, and policy makers. The Council of Europe group also recognised that for effective implementation of guidelines, a systematic approach to managing the quality of health care is essential (Council of... 1998). The link between quality management and guidelines goes both ways: without reliable, evidence-based information compiled into guidelines, quality improvement projects must use valuable resources to locate and appraise such information. On the other hand, guideline implementation is very difficult unless good systems for quality management are in place.

Guideline clearinghouses or guideline production programs facilitate the accessibility of multiple guidelines and may increase guideline quality. When guidelines are produced within such programs, it is also easier to disseminate them in a planned and active manner. To ensure maximum effect, guideline dissemination and implementation strategies should be used in combinations and tailored to suit the users. Well-planned monitoring of guideline effects is essential, and especially the impact of guidelines on health outcomes needs further development and evaluation.

Quality projects can often productively adapt recommendations from guidelines to their local use. All that glitters is not gold, and anything called a guideline is not necessarily of high quality. Tools for evaluating the quality of guidelines should be used to decide which guidelines should be implemented. For example, the Appraisal of Guidelines Research & Evaluation in Europe (AGREE) Instrument provides a framework for assessing the quality of clinical practice guidelines. The instrument is available in English at www.agreecollaboration.org and is being translated into several European languages.

Guidelines can also include a list of indicators that can be used, among other things, for evaluating the results of guideline implementation. A guideline on asthma in Finland suggests that primary care could evaluate the quality of asthma care by looking at the yearly proportion of asthma patients who received oral cortisone, consulted after hours, or were referred to secondary care.

Standards

The concept of standards is often linked to strict rules and regulations; this may be the case but the word is used with other meanings, too. Many countries produce and use voluntary standards for health care, and standards may often support quality in much the same manner as guidelines do. The legal and regulatory effect and power of different documents – whether they are called standards, norms or something else – is linked to health care systems in each country and can only be fully understood by professionals working in these environments.

Standard of practice management (EQuIP, Iceland)

The working conditions of Icelandic family doctors have been very variable across the country. The objective was to establish a minimal standard of practice management in family medicine and to encourage Icelandic family doctors to practice medicine above this given level. The Standard is composed of statements on structural aspects of family medicine and contains four chapters; optimal goals of family medicine, tasks of family doctors and other health care workers, facilities and housing at health centres, and equipment at health centres. The Standard was developed in 1986 and revised in 1992, on a voluntary basis by involved members of the Icelandic College of Family Physicians. Family doctors across the country accept and take pride in adhering to the Standard, which is also respected by other health care professionals.

Both guidelines and standards are produced and used in a complex environment of ethical, economic, legal and other aspects; these aspects need to be taken into consideration in each country. Although guidelines have been transferred from one country to another, one should be very careful in their direct application into new cultural surroundings. Adaptation to the working environment is needed at national as well as regional and local levels. One of the best guarantees for guideline acceptance and implementation is a strong, credible person or group speaking for its use.

Information via Internet

Welcome to the world of the virtual traveller! Nowadays we do not need to leave our offices to find the information we need. Just sit by your computer and click away to reach enormous databases and libraries - or masses of badly arranged and dubious health information.

The latest revolution in health care information technology has completely changed the tools for retrieving information. From the age of books, journals, and other printed matter we have gone over to electronic

communication. To a certain extent, paper and bytes are exchangeable, and users can pick whichever is more practical for them. Even lectures are given by television over telephonic links, real-time, or they can be saved and provided by Internet for the user to see whenever suitable.

Health care professionals have access to more and higher quality data than ever in history. To apply this knowledge, we still must be equipped with some old tools, like anatomy, pharmacology, and statistics. In addition to using paper libraries, we must learn how to use the Internet and be familiar with various electronic collections of wisdom, such as databases and guidelines.

The Cochrane Collaboration is one of the most important sources for high quality information on the effectiveness of health care interventions. The Cochrane Library provides more than one thousand systematic reviews on its website for quick reference, and references to nearly 300 000 published randomised or controlled trials in its more extensive database.

Quality information system in New Zealand

The primary care setting in New Zealand is highly computerised. Primary care practices can use computerised management systems for clinical notes, prescribing, test ordering, coding health problems and practice administration. The Research Unit at the University Department of General Practice and Primary Health Care in Auckland has developed and trialed a set of 28 quality indicators for primary care in New Zealand. Five categories were included: smoking cessation, preventive health activities, prescribing quality, chronic disease management and data quality.

The feasibility of possible population-based indicators identified by literature review was assessed by looking at their evidence base and how readily they could be derived from existing practice management systems. Most indicators could be produced from existing data sources, but disease management and smoking cessation measures required more sophisticated patient level data and the recording of new data elements. Some 90 practices covering 250 family doctors already use these indicators as part of an annual practice report.

Finding data requires time and tools

In many countries, health care workplaces offer computers, databases, and Internet links to the employees. At first, the growing pains of introducing computers need to be overcome, so that everyone is familiar with the keyboard and the basic software, and the most common programs function well in our environment. The challenge then becomes to find the time to look for knowledge at the time we need it in practice. When health professionals are asked how much time they weekly can use for reading new medical information, most report a maximum of 30-60 minutes.

We also need time to swallow and digest information. The easy availability and abundance of knowledge in electronic format requires selectiveness. First, we must decide how much time we have for information searching, and select the most suitable tool and database according to that. Then we need to weigh how dependable and applicable the located information is for our present purposes. If the source is trustworthy – for example a guideline describing the level of evidence for each statement – the judgement is easier.

Often we need to evaluate for ourselves whether the evidence is sufficiently good to be used as a basis for decisions. We must learn to distinguish nutritious food for thought – evidence-based knowledge – from mental soft drinks and potato chips. Only a small fraction of the studies reported in the medical press are useful for application in practice. For a detailed discussion on the methods of critical appraisal, the EBM handbook by Sackett et al (1999) is an excellent source.

Patients have computers, too

Patients are also bringing in their own selections of scientific articles and electronic information. For them it may be even more difficult to distinguish between reliable and doubtful medical advice. To keep current, the family doctor needs to have an idea of how to evaluate not only scientific articles but also Internet information. International collaborative groups, such as MedCertain, are also actively developing methods for quality marking the health information available. Family doctors who use

the Internet frequently are wise to develop their own list of selected Internet sites for information. At the end of this book, we provide some useful addresses for quality travellers. But be critical of everything – even if the source is reliable and the information sound, it may not be applicable to your specific situation.

Patients and doctors can use computers together. In some primary care units, practice assistants interview patients and put new data relevant for the visit in the information system before the patient sees the doctor at all. This way, the doctor can spend more time with the patient discussing treatment options and finding best personal solutions for them. In other practices, doctors and patients may spend time looking at the screen together, for example discussing the treatment options presented in a national guideline, or finding peer groups or educational courses from the pages of patient organisations. In general, it would be useful to think about how the consultation process could and should be reorganised when the IT systems are being introduced.

Knowledge before action

Using reliable knowledge is always a sound basis for action. Walking the road of searching, evaluating and applying evidence requires energy to start out with, but as the evidence-based working patterns become a part of our everyday work, we can cut unnecessary corners and be quicker. Good primary care can only be based on good information. The Hippocratic doctors knew this, too: "...mere verbal conclusions cannot bear fruit; judgement is possible only based on facts. For speech and reassurance are treacherous and deceitful. Therefore we must cling to facts even when generalising, and act persistently on proven truth, if we want to achieve that mature and infallible action that we call the art of medicine." (Fabre 1997.)

Travel tips

- Choose valid indicators to measure what you really want to achieve.
- Use a selection of quality indicators, collecting them by several methods from different sources to get a full picture.
- Find and use your patients' unique perspective on quality of care.
- Guidelines support quality management - and vice versa.
- Always estimate for yourself the quality of the information you plan to use.
- Adjust the information technology to the needs of its users.



Chapter 8

Resources: How do we get what we need?

Travel requires resources. Even the most frugal traveller must commit some time and money to the journey. Quality efforts require people to do the work and funding to provide the necessary supplies and income for their work. This chapter focuses on securing the commitment of people and funds needed to accomplish quality work.

Committing to the journey

The first step is often the most difficult: gaining commitment to an explicit approach to quality health care. Some may think there is no need to commit to quality, since the tradition in health care is endless dedication to the needs of the patient and the constant improvement of care. Quality is supposed to be self-evident in health services. Yet, the evidence is compelling that health care around the world can do better. Health care systems underperform in ways that threaten the health, wealth and satisfaction of their people.

One example of underperformance is the tremendous variance in care. Wennberg demonstrated up to eight-fold differences in tonsillectomy rates in adjacent areas of the United States, which did not have an eight-fold difference in tonsil disease. Brook (1996) showed that while some of those surgeries were appropriate, others were not. It can be shown for most medical interventions that some people who should get a particular intervention do not receive it, others who should not get the intervention are subjected to it, and still others have the intervention provided in a manner that is substandard or too costly. There is also

evidence that traditional mechanisms for quality improvement, such as professional and continuing education, licensure/certification, and peer review have not assured quality (Davis et al. 1995).

The decision to commit explicitly to quality can at first seem daunting, a voyage into the unknown. Changes in work processes and dedicating resources to the planning, measurement and modification of quality initiatives will threaten the status quo. We can overcome our natural resistance to change by acknowledging that current efforts are important, but can be improved; although change is stressful, the stress and responsibility are shared. Change is inevitable, but conscious change improves the odds that the results will be what we desire, rather than what just happens. Said differently, the alternative to managed change is unmanaged change; the alternative to planned quality is accidental quality. The strategies described in this book illuminate a path that leads to managed change and planned quality.

Our attitudes and behaviours reflect our beliefs, values and routines. They comprise our own and our organisational culture. While we may have a number of strategies for quality improvement, we must be mindful of the saying that “culture eats strategy for lunch every day.” The best-laid plans can fail if we do not take account of cultural forces. Gaining commitment to a quality initiative requires addressing several important factors: leaders, stakeholders, and incentives.

Leaders

Each of us is a leader at times and a follower at times. Change in beliefs and behaviours often results from someone who influences us, who leads the way. It can be very helpful to identify a champion, someone who is well regarded and can influence the group: the doctor in the practice, the President of the College or Academy, the leader of the health plan. While the status (or nominal) leaders will usually head the initiative at the outset, others will often step forward later to take the lead as the program gains momentum and a team emerges: the nurse in the practice, the staff of the College or Academy, the quality co-ordinator of the health plan.

Experience suggests that physicians are often the greatest source of resistance to change. Consequently, it is probably wise to initially have a leader who is respected by the physicians who will participate in the endeavour. If the leader at the outset is too far down the social ladder, the initiative may be doomed to a marginal status, as it may be too easy to ignore without the involvement of the key leadership. Essential attributes for leaders are energy, enthusiasm, and consistent dedication to the cause. Other attributes, such as expertise, can be developed or hired.

Stakeholders

Anyone who has an interest in the effort is a stakeholder. In a practice, this includes the physician(s), office staff, and patients. At the national level, it involves professional organisations, funders, government, and so on. Initiatives are more likely to succeed when they obtain input from and, better yet, the involvement of all significant stakeholders. Which stakeholders to involve and when to involve them will vary by the complexity and importance of the project.

A smaller project, like a practice increasing the proportion of diabetic patients who have an eye examination, may focus on individual professionals. The practice receptionist will ask each patient with diabetes about the last eye exam, the nurse keeps a diabetes register filling in dates for latest eye exams, and the doctor obtains the skill to perform basic eye exams well. Patients – natural stakeholders – just need information and encouragement.

Large, complex programs, such as a national effort to increase eye examination rates, will usually require more, and more diverse, stakeholder participation – consumer groups, professional associations, health plans, and the media are all likely to be involved. Each group will need their own motivating arguments and means of participation. While all probably are interested in an evidence-based approach, they need to receive the data in slightly different packages. Professionals may appreciate training by experts and detailed knowledge of technology; funders are interested in long-term outcomes and cost-effectiveness data;

patients naturally want translation into their own situation; and the media enjoys dramatic examples or arguing experts.

A greater number of stakeholders ensures more perspectives and people to do the work, but it also means more complex communications and co-ordination and more potential for conflict. While there is no perfect number of stakeholders, experience has shown that groups of 5–7 people appear to make the most effective and efficient teams. Fewer than five and too few perspectives may be represented; more than seven and maintaining a co-ordinated effort becomes difficult. Even very large projects can be organised into subgroups of 5–7 persons.

Incentives

Most stakeholders in the health care system are motivated by a sincere desire to improve the process and outcomes of care. Asking them to change their current behaviours suggests that their current efforts are inadequate or misdirected. The focus should be on introducing practices that are more effective and require less effort, not on belittling current participants or behaviours.

To encourage change, it is necessary to develop an appreciation of the concerns of the various stakeholders and then to design programs that address those issues while achieving the larger quality objectives. The 5–10% of people who are early adopters will help to lead the change. Another 5–10% who are late adopters may require negative incentives: loss of income or other sanctions. Most people in the middle respond best when their needs and concerns are addressed, and they can see that the change benefits them, too. Social marketing is an approach that attempts to change behaviours for socially good outcomes (e.g., avoiding tobacco use) through a better understanding of the motivations and barriers of the target audience (see the example below).

Too often, especially in nation-wide programs, the emphasis is on negative incentives: loss of income or status for failure to comply with a quality initiative. Money is thought to motivate workers, but it is usually down the list of important influences on worker behaviour. For human beings, it is most important to be part of a meaningful enterprise, to feel that the

work has value and gets accomplished. Respect and collegiality are also high on the list.

Identifying barriers prepares ground for change

In 1998, the American Academy of Family Physicians hired a consultant, the Academy for Educational Development, to understand and influence the attitudes and behaviours of member family physicians on the subject of quality improvement. The consultant concluded that:

1. There exists a knowledge gap in what QI is and how to go about “doing“ it.
2. Many physicians identified QI as being quality assurance (chart audits, targeting individuals, assigning blame) under a different name, and saw little or no value in it.
3. QI is resource intensive, and physician and staff time is the most valuable resource.
4. Change, an inherent principle of QI, is threatening and difficult.
5. The budgets of some practices are so tight that the perceived time lag between implementing a process of change and realising the benefits may push them over the edge financially.
6. There is an assumption that time spent on QI is not time spent with patients, and therefore results in initial declines in productivity.

The Academy of Family Physicians has attempted to address each of the concerns in this quality initiative through:

- promotional campaigns to persuade family physicians of the value of QI efforts;
 - educational resources (CME courses, journal articles, etc.) to teach them how to go about QI;
 - opportunities, such as list servers, to share success stories;
 - development of practical tools to measure and improve performance in order to save family physicians the time and resources needed to develop such tools; and
 - information demonstrating the economic impact and benefits of a QI approach.
-

Many professionals, among them physicians, are heavily influenced by peer pressure – doctors are known to quickly “regress to the mean.” That is, professionals usually change their behaviours, when presented with credible data showing them to be clearly different from the majority, to match those of most other similar colleagues.

Funding the Quality Journey

Various types of resources are needed to succeed in quality activities: people willing to commit time and expertise; facilities and supplies such as meeting rooms, telephones, and computer equipment; and information resources such as literature or websites on quality, measurement instruments, and reporting tools. It would be wonderful, if a more formal and explicit approach to quality were supported by unlimited amounts of outside funding - but it is unrealistic to expect that. The good news is that quality is a good investment: most quality efforts result in more efficient use of resources and funds better spent.

It may be difficult, however, to secure start-up funds for quality activities. And there is bad news, too: the primary beneficiary of the improved economics may not be the one who put up the initial investment. For example, the community practice that hired an asthma educator may provide biggest monetary benefits to the regional health plan that avoids hospital costs through improved management of asthma in the community setting. Quality funding schemes, much like quality efforts themselves, usually depend on shared financial responsibilities among multiple partners. Finding resources is described below at each of the levels of activity.

Practice level

In small practices, the “funding” for quality will often represent additional or after hours time that the doctor or other staff members devote to quality efforts. While it would be nice to be able to hire additional personnel to take on a “new” quality program, most practices do not have the financial means to do so. Thus, clinic staff may be asked to come in early for a meeting or use break times to work on quality projects; doctors

or nurses may review data on the progress of the quality initiative before or after patient hours.

While the investment of some voluntary time to quality is inevitable and laudable, it cannot be the sole means of financing quality or the effort is destined to fail – such volunteerism will not be long sustained. Instead, a quality approach must become an integral part of the usual way of doing business, an inherent part of each person's job. On the other hand, process changes are easiest to implement when they have been planned by those who live with the processes. Refraining from outside help builds ground for lasting change.

Funding practice computers: a successful puzzle

The Belleville Family Medical Clinic in Wisconsin, USA, serves a rural catchment area of about 15,000 people. The five physicians decided to install an electronic medical records system. They estimated that the total cost of the project, including additional time spent by one of the physicians who would serve as project champion, was about 350,000 US dollars. This was too much to cover from the practice budget, so a fundraising effort was launched. Luckily, many stakeholders were able to see they would benefit from this development, too.

The University of Wisconsin Department of Family Medicine provided about 150,000 of the funds, mainly in the form of technical assistance and computer support. A grant from a major computer corporation provided about 50,000 in computer hardware. Area hospitals contributed 50,000 for the interfaces and connections to reference laboratories and hospital record systems. Most significant was that local businesses, service clubs (e.g., Optimist and Rotary clubs), and individuals in this small farming community pledged 30,000 dollars toward the effort, believing that the initiative would improve the quality of information and care in the community. The remaining funds needed for the project were amortised over five years of clinic budgets.

Local level

In many instances, support staff for local area projects can be provided by hospitals, larger medical groups, county medical societies and the like. Area businesses may be approached for contributions to the effort. Local foundations or voluntary organisations may also be interested in contributing toward a quality initiative. Contributors are often motivated by the desire to improve the community's health, to influence health care delivery in the area or to see more efficient and lower cost care.

National level

Professional organisations, such as Colleges or Academies, are an important resource for national efforts. Continuing education programs or quality projects can be funded through subscriptions or user fees, industry or government support, or other methods. Sometimes, quality activities can be structured in a way that enables them to be eligible for research funding from private or public granting agencies.

Health funders, such as insurers or health plans; governments; private foundations or philanthropies; and industry (pharmaceutical firms or medical equipment suppliers, among others) are essential participants in large-scale quality efforts. Funding rarely comes without strings attached. It is wise to be aware of, and clear about, the expectations of those who contribute toward the quality initiative.

Certain funders may be viewed as having motives that are at cross-purposes with the target audience. For example, a guideline program developed by an insurance company or government health services agency might be viewed by practising physicians as more focused on cost than quality. These potential barriers can be overcome by making the relationships explicit and transparent, so that everyone's motives are understood and consistent with the ultimate aims of the endeavour.

International level

Multinational organisations, such as the European Union or large private enterprises, can sometimes assist with funding. Other international bodies, such as the World Bank or World Health Organisation, may be interested in providing expertise or help in health policy questions. WONCA, the World Organisation of Family Doctors, and its Working Party on Quality in Family Medicine have been important sources of expertise and education on quality. International regional resources include the European working party on Quality in Family Practice (EQUIP) and the Quality in the Asia Pacific (QulAP) network.

Travel Tips

- Change is difficult, so learn about the resources and resistance of potential participants.
- Be respectful of current practices and persuade participants, through data and expressed values, of the importance of change.
- Identify leaders to recruit and sustain other stakeholders for the cause.
- Early on, expect that not all time will be compensated or that all needed resources will be funded.
- Develop a culture of quality such that it becomes the guiding principle for budgeting people's time and other resources.



Chapter 9

Environment: What are the rules of the road?

Quality improvement in family medicine must take account of the environment outside health care: social, political, economic and cultural forces. These have an impact on all steps of the quality improvement cycle and are also key determinants of health. Besides the general social context, family doctors and their organisations need to know well the laws and other regulatory controls – traffic rules – that apply to them and their work.

General social context

War, civil unrest or famine will obviously influence how family doctors and their organisations try to improve quality. The choice of activities will be determined by the needs arising from the social context. In a stressful situation, trying to maintain services or organise basic medical supplies may become the most pressing quality concerns. Resources will be a prime constraint on any activities.

Less dramatic environmental conditions also influence quality improvement planning. For example, in much of Africa, the most reliable form of professional communication and education is often the Internet. Satellites are more stable than phone lines or postal services. Rural communities have a different geography and demography from urban communities. Quality goals in isolated rural areas might focus on improved access to services through workforce policies to achieve the appropriate number of trained personnel. Well-planned use of information

technology combined with visiting services can bring problems and expertise closer together without major changes in infrastructure.

Telecommunication and helicopter services

The most promising environmental developments for advancing quality improvement over the past decade relate to the potential of new information technologies. In arctic Canada or subsaharan Africa, the physician might fly to serve an outpost for two days once a month. The rest of the time, the local nurse is responsible for delivering babies, treating infections, and declaring deaths. A real lifeline for the community is the telephone: in addition to calling the consultant when necessary, the nurse can access various electronic databases - including the regional hospital guidelines - through the modem.

Practices should be aware of their local environment and especially their patient populations as an integral part of quality management, as discussed in Chapter 6. On the regional and national levels, being sensitive to public attitudes and the political context can help in marketing quality activities and acquiring resources for them. Health fashions can be targeted to improve quality in key areas, by linking generic activities with clinical conditions or problems. A good example is launching a quality improvement program focused on diabetes, built partly on the publicity surrounding an Olympic athlete with diabetes. On the other hand, changes in political priorities can limit interest, commitment and resources for health areas when certain programs become unpopular or politically incorrect.

Certification, recertification and accreditation

Laws and regulations related to the fitness of doctors to practice and the appropriateness of their facilities are important environmental influences on quality improvement in family medicine. Different words can be used for this process – licensure, certification, giving credentials, accreditation. Here we use *certification* to describe the process of assessing the

suitability of a professional for clinical practice. By *accreditation* we mean, as usual, the formal assessment of the quality of the practice environment – both structure and organisation.

Certification is the initial assessment of a doctor as fit to practice in a specific discipline. This may mean the basic qualification to practice medicine in general, or the acceptance by the profession to practice as a specialist in family medicine, surgery, pediatrics, or other particular field. The certificate may impose restrictions on practice that may be absolute (so that no certification means no practice) or relative (when lack of certification means lower financial remuneration or less access to work).

For example, doctors generally cannot practice medicine without approved medical training, relevant experience and satisfactory assessment of their skills. This *basic certification* process usually occurs after successful completion of primary medical training, which commonly includes completion of medical school and, in some countries, completion of one or more years of post-graduate training in a supervised setting. Basic certification may take the form of a license to practice medicine in some jurisdictions. Maintaining basic certification may depend on achieving various performance targets, such as a certain number of hours of continuing medical education each year. In many countries, graduates from primary medical training become family doctors by default – they do not have any specialist certification.

Family medicine is in many countries recognised as a discipline or specialty, manifest by a *specialist certification* in family medicine. The achievement of specialist certification can depend on some or all of the following:

- special vocational training – e.g., family medicine residency,
- documented experience in the special discipline of family medicine, and
- satisfactory assessment of competence – e.g., through an examination in family medicine.

A further stage in some countries is *recertification*. This is a process where certified family doctors have ongoing requirements to maintain

their certification. These are checked at regular intervals, typically every three or five years. Recertification can involve some or all of the following:

- participation in set amounts of continuing medical education or quality improvement activities,
- re-assessment of clinical competence by examination, and
- checking the absence of any severe malpractice or misconduct.

The regulatory process concerning organisations is called *accreditation*. By seeking accreditation, institutions providing test results or certificates can prove the credibility of their activities to outsiders. This assessment of the quality of the practice structure and organisation is voluntary and usually done by a national body. The accreditation process may take account of the entire practice or the laboratory; or certain parts of its activity, such as microbiology or clinical chemistry. An accreditation may in some cases mean qualification for higher reimbursement.

Using regulations for quality improvement

Australian family doctors who complete vocational training and assessment satisfactorily receive the Fellowship of the Royal Australian College of General Practitioners. This entitles them to join a Vocational Register maintained by the government and makes them eligible for higher rebates in the national health insurance scheme.

Participation in the College CME program is a requirement to remain on the Vocational Register. The link of the register to government control makes many family doctors have some concerns about the government's role. One challenge for the program is therefore to operate in a way to minimise aspects of policing and to emphasise professional support and accountability.

The program started with relatively few requirements in 1990 and most existing educational activities were approved. Over the years, the criteria for approval were modified to ensure the program encouraged high-quality activities. Higher ratings stimulated doctors to participate in well-planned clinical audits and continuing medical education, less effective activities were no longer approved.

The administrative processes were made as effortless as possible for doctors, so that organisers carry the task of reporting participation in activities. Family doctors are kept informed of their progress in meeting their requirements through regular feedback four times a year. Local College offices offer them individual advice about how to match needs with approved activities. Very few practitioners, only about 2%, fail to meet the requirements to remain vocationally registered. This is regarded as one of the successes of the program.

There may be significant benefits to certification, recertification or accreditation. Across various countries, the benefits of specialist certification can range from self-improvement, with no benefits other than the satisfaction of accomplishment, to financial gain or practice necessity. A specialist certification may be necessary to obtain certain practice privileges, or to become a partner in some health organisations.

In Australia, for example, certified family doctors gain higher payments for patients in the national health insurance scheme. Recertification every three years through participation in a formal quality assurance and continuing education program is necessary to maintain this access to higher rebates. By participating in practice accreditation, family doctors can also gain access to additional incentive payments unrelated to number of patient services. In Norway and Puerto Rico, certified family doctors are reimbursed at a significantly higher rate than those who are not certified - but they need to take recertification every 5 years to maintain higher reimbursements.

These regulatory mechanisms can have both positive and negative components. They can provide mechanisms for encouraging higher standards or education and quality improvement but can also be used to control numbers of doctors and the costs of health care, or to establish and maintain a medical elite. It is important to develop certification, recertification and accreditation systems that are valid, reliable, acceptable and achievable.

Other regulatory controls

Other rules and constraints also influence family doctors' patterns of practice and these may be used in order to improve quality of care. However, the regulatory approach often has unforeseen effects and commonly causes antagonism and concern from doctors and patients. Examples include specification of limited lists of available medicines or requirements for compliance with treatment protocols. In such cases, cost rather than quality may be the overriding factor – or it is perceived to be.

In many European countries, regional authorities had for decades decided where to treat persons living in defined geographical areas. Regional hospitals practically had monopoly positions. In the 1990s, regulation was increasingly passed from regional to a lower level by various arrangements, such as fundholding or extension of treatment contract areas. This meant that primary care practices – or even patients themselves! – had authority to decide how they would use the public resources for the health of the population – they could choose between different sites for secondary care. This, in turn, suddenly increased the hospitals' interest in quality management activities.

Subsidising cost-effective medication

Australia has a system of subsidy for selected pharmaceuticals that have been approved as efficacious. New and expensive products may not be readily available at the subsidised rate. However, if they are more effective than existing medications in very specific circumstances, they can be made available at the subsidised rate through a special authority scheme. Individual doctors need individual approval for each patient for whom they wish to prescribe the authority drug. The process of application for authority is streamlined using special universal access telephone lines staffed by clerks who know the formula or words for approval of the drug. Thus far, the process of application is sufficient disincentive to reduce the number of prescriptions for new expensive drugs. It is not known whether it is more of a disincentive for unnecessary prescriptions.

Managed care

Managed care encompasses a collection of financial and utilization management techniques that are designed to improve the effectiveness and efficiency of care. Spawned by health maintenance organisations (HMOs), which began in the United States in the 1940s and gained momentum in the 1990s, managed care has received much attention through its impact on patients and practices. Initially hailed in the U.S. as a method to control health care costs, highly publicised examples of heavy-handedness, harmful policies and excessive profits caused state and federal governments to pass a number of laws restricting the authority of managed care organisations.

In theory, the reimbursement and regulatory mechanisms of managed care offer the potential to improve care by providing positive incentives for good performance and appropriate services and negative incentives for poor achievement. In practice, each technique can have beneficial or harmful effects. Formularies can promote appropriate use of therapeutically equivalent and less expensive generic drugs or deny access to better medications. Programs requiring a second opinion before authorising a procedure can reassure funders that interventions are done only for appropriate patients or they can decrease the volume of needed procedures. Clinical practice guidelines have the potential to help doctors provide the best possible care. They may inappropriately limit decision making when taken too literally and failing to account for unique patient, doctor or resource factors.

Disease management programs, which bring together a team of specialists and support staff focused on a condition such as diabetes, can bring the latest advances and best practices to patients with that condition or they can fragment or detract from the patient's overall care. Systems which use hospitalists (physicians who limit their practices to the hospital setting) can achieve higher quality and lower cost in the hospital. At the same time, these systems run the risk of inappropriate decisions or uncoordinated care at stressful times for very ill patients.

Approaches that require prior authorisation or continued review and approval for hospitalisation can reduce costs, but they can deny hospital care when those services are needed. No single rule secures the way to

quality; regulations are best when applied with a profound understanding of the entire health care system and a watchful eye for side effects.

Paying family doctors

Physician compensation arrangements can have considerable influences on quality of care. Each of the basic models has their own pressures and incentives.

Fee-for-service arrangements

In this system, the income for health care professional depends on the number of individual patient services they perform. Income increases with number of services performed, hours of work, or complexity of consultations. This approach provides a strong financial incentive to see as many patients as possible for as short a time as possible. On the other hand, fee-for-service can be structured to promote certain desired services, such as preventive or primary care, by providing a relatively higher fee for such services. In the United Kingdom, rates of screening for cervical cancer improved notably since family doctors received a fee for providing this service.

Fee-for-service can support unnecessary services or discourage useful ones. For example, longer consultations, which tend to be discouraged in fee-for-service schemes, typically involve more patient education and more preventive care, decreasing need for services in the long run. Unnecessary services in the form of frequent visits can lead to patient dependency. Both these potential consequences of fee-for-service medicine threaten quality of care. Where the system is underwritten by widespread health insurance, this can lead to increasing costs outside the control of the health system.

Capitation

Under this system, a physician or practice is funded to provide health care to a defined population. Funding and professional incomes are

constant regardless of the level of health care activity. This approach can control costs, but it has the inherent incentive for under-servicing patients. While costs may be better predicted or controlled, services may not meet the populations' health care needs. In addition, capitation can alter the doctor-patient relationship by placing the doctor's financial self-interest in conflict with the patient's medical needs or desires.

Salary

Some family doctors are paid a fixed monthly salary, which may or may not have bonus payments available for achieving certain productivity, quality performance, or simply seniority. Salaried arrangements allow for better predictability and control of costs, but they can result in lower incomes or less incentive for the doctor to put the extra effort or hours into achieving excellent care or patient satisfaction.

Blended payment systems

Analysis of different health funding arrangements and their impact on quality has led to payment system initiatives at the national level that seek to balance the opposing incentives or disincentives of different systems. For example, in the United Kingdom some fee-for-service payments were introduced for targeted preventive health activities.

In the fee-for-service system in Australia, accredited practices that provide (among many other quality indicators) longer consultations and after hours care have access to a range of payments based on their patient population base. In the United States, family doctors may be paid a base salary which is adjusted by a capitation formula driven by the number of patients under their care, by productivity incentives determined by their services provided, by fees charged and by quality or patient satisfaction performance.

In Finland, municipally employed family doctors receive a basic capitation fee, a compensation for after hours work, and a fee-for-service compensation for patients that consult less than three times yearly. The consultation fee is not given for visits by frequent attenders, such as

patients with chronic illness. This provides incentives to arrange care for chronically ill as a team activity, and to see as many of the list population as possible once or twice a year – a perfect setting for developing extensive preventive activities.

Travel Tips

- Healthcare quality is influenced significantly by factors outside health care.
- Certification and accreditation are used to promote certain practices.
- Regulatory controls are more likely to be effective when they are acceptable.
- Methods of compensation influence family doctor behaviour.



Chapter 10

Renewal: How to know we have arrived, and how to keep going?

Travelers to quality need to recognise achievement and reflect on new starting points and future destinations, while their minds remain focused on the distant horizon of practice perfection. Good quality in primary care is like the Nordic saga of the golden castle of Soria Moria, which shimmers just ahead of the traveler: we know it is wonderful but can not describe it; it appears so near, yet no one can reach it.

Starting Points

We should begin from where we are, start with what we have and take on what is possible. If we have never tried a quality approach, then we should scan the horizon to understand the full context and determine the best place to start. If we already have a program of continuing medical education, then it can be upgraded to a quality improvement program. The same can be said for peer group work, review groups, recertification systems, audit, undergraduate medical education or vocational training. Each one of these is a potential launching pad towards establishing a full national, regional or practice quality improvement system.

Evidence-based medicine as starting point for quality: the Philippine experience

The entry point of quality practice for the family doctors of the Philippine Academy of Family Physicians (PAFP) was combining evidence-based medicine (EBM) and quality improvement. The National Health Insurance law requiring health professionals to participate in quality assurance in 1994 is the foundation for quality development. The core of early quality advocates included the PAFP, the Philippine Society of Teachers in Family Medicine and the University of the Philippines Department of Family and Community Medicine. They formed academic links with British family doctors who had experience with quality initiatives.

The main start-up strategy was launching interactive workshops on EBM and QI. Local physician chapters were the initial targets. The workshops involved critical appraisal of published studies, basics of clinical decision making and introduction to quality improvement.

Feedback forums were conducted after the sessions. The response was positive, showing attitude change and acceptance of quality concepts. Chapter facilitators were identified for future activities and their own quality assurance program was drafted. In the future, PAFP intends to widen the QI network to all the local chapters, increase the pool of resource speakers through teacher training programs, develop guidelines for the most common clinical conditions, and integrate EBM-QI in all residency training.

The Complete Tour Package

The destination is a systematic approach. The definition of quality developed by the WONCA Working Party on Quality in Family Medicine states, "Quality means the best health outcomes that are possible, given available resources, and that are consistent with patient values and preferences". To achieve the level of quality envisioned by this definition requires more than the competence of individual professionals. A system is needed that will enable all professionals, groups and patients to work together toward better outcomes – quality becomes everyone's job in the ideal system. The ultimate objective is a quality system in the practice that integrates with a quality approach at the local, regional and national

levels. Such a system when fully developed will most likely have the components listed below.

Guidelines

Clinical practice guidelines can provide an important synthesis and summary of evidence into succinct practice recommendations. To be credible, the guidelines must be focused on the best interests of patients and developed by a group that is regarded as objective. Since guidelines aim to influence professional behavior, practicing clinicians must participate in the development process so that the guidelines are seen as relevant to their situation and feasible.

A national academy or college of family medicine can be an ideal convenor for a guidelines development effort because it often has the capacity to do the literature review and bring together the necessary expertise and perspectives. In countries such as the United States, where multiple diverse professionals may have responsibility, or compete, for the same set of services, it may be necessary to have different professional societies, health plans or government convene the guidelines development initiative.

Guidelines may be developed at the international level, as the international specialist societies have done for certain diagnoses. It becomes, however, increasingly difficult to have the same guidelines apply across borders given the different values, healthcare systems and resources between countries. A guideline is usually outdated the moment it is released, since science marches on. Thus, the final consideration is that guidelines must be continuously revisited and reviewed as new information and practices emerge.

Care pathways

Local or peer groups are needed at the practice, local, or regional levels to translate guidelines into locally acceptable protocols, often called care pathways, that can be applied to individual patients. The challenge is to maintain the integrity and conclusions of the evidence used at the national

level in creating the guidelines, while acknowledging local resources and values.

Whatever the activity is called – quality circles, audit groups, tutor groups – the group should be local, preferably multi-professional, and ideally include participation by all who will be affected by the care pathway, also patients. Care pathways, like guidelines, need constant upkeep and revision.

Evaluation system

It is important to have both internal and external systems to evaluate quality. Internally the group can decide on its own standards (usefully informed by national or international standards or guidelines) and measure themselves against these. It is advisable to include occasional external evaluation by means of peer visits and reviews from colleagues in other practices or from reviewers formally established by a national body.

Regulations and rules

Regulations and rules can be voluntary, and enforced by a practice or professional group, or mandatory, and enforced by any level of government. Experience has shown that a voluntary approach is more likely to be successful, but that a mandatory solution can sometimes be necessary to change practice or protect the public. Certification, accreditation and registration systems as well as rating systems, standard setting, and remuneration or payment policies are all examples of regulations and rules.

These normative statements can be formulated and enforced in ways that encourage innovation and compliance with a quality approach or deteriorate into a system of rigid control that loses sight of the original objective: to stimulate a change in attitudes and behaviors that results in a quality culture. A balanced system includes both incentives and disincentives to achieve the quality culture.

Integration

The ideal system connects all levels of healthcare in a coordinated and congruent manner. National health policies reflecting national values about health services and scientific evidence are distilled into clinical practice guidelines. These are locally adapted and implemented as care pathways at the practice level and then continuously re-evaluated as to the impact on outcomes and the need for changes. These, in turn, feed back into the next iteration of the guidelines as they are revised at the national level. The process becomes something like a spiral that constantly brings in new information from all levels as quality initiatives are continuously established, evaluated and revised, reaching ever upward to better quality outcomes.

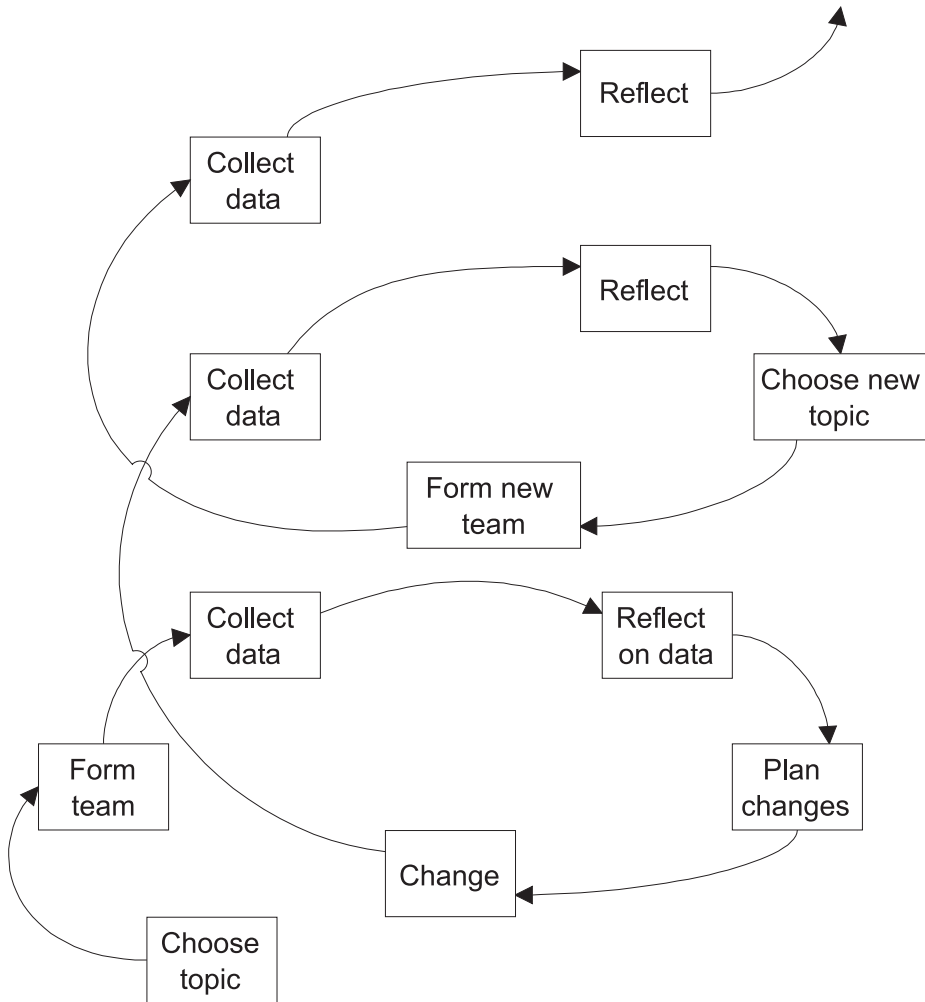
The travel experience and diary

To get experience, it is most important to begin. Start with one project, rather than many projects; start small even if the start is imperfect; and start with an effort that is likely to succeed, so that early success can be achieved and built upon. The journey, to be sustained, must be enjoyed as it is experienced - as John Lennon said: "Life is what happens to us while we are planning the future." Borrow from the work of others (such as relevant guidelines) and invent new solutions when there are no ready answers. Periodically look toward the horizon to be certain that the project remains on course, congruent with larger goals and values. Reflect on these questions:

- Is this the destination we set out for?
- How was the journey?
- Was it worth the effort, cost, time?
- What should we do more of or avoid next time?

As we gain experience working through the quality cycle, our confidence and efficiency will grow. Each completed cycle takes us to a higher level of understanding (Figure 3). We will work through each coil in the spiral more quickly and successfully as we are permanently changed and evolve toward a quality culture, becoming ever wiser travellers. We accumulate individual and collective stories and destinations as we travel. By sharing

our experiences with others at congresses and through our writings in newsletters and journals we will gain greater insight into our own travels and encourage others to join the quality journey. The journey is not over until the story is told and recorded; every good journey deserves a diary.



*Figure 3. Quality spiral.
Reaching for higher levels of expertise and improvement.*

The ultimate destination

Each of us has an image of our perfect destination, our Soria Moria. In health care, that would be a place where all death, illness and suffering would be prevented or, if unavoidable, would be treated effectively, efficiently and empathetically. While that ultimate destination may appear too distant, certain trends can be projected for the near future. Diagnostic tools, such as ultrasound or other imaging technologies, and treatment regimens, such as individualised pharmacotherapy, will become more available and affordable for patients and their family doctors.

The easy availability of information through the Internet is already changing medical practice. Patients will need someone to help them sort through the flood of information available to them, someone who knows them and their values and can make the information personally relevant and meaningful – no one is better positioned to do this than their family doctor. Genomics will enable clinicians to predict with greater confidence an individual's unique health risk profile and, eventually, prevent or more effectively treat a wider array of conditions. Medical informatics, including the Internet, and genomics will increasingly be viewed as the domain of family doctors and other primary care clinicians as these technologies are made more accessible, affordable and easy to use.

A review of current knowledge and technology suggests additional possibilities for the family doctor of the near future. Patients will need well trained and dedicated family doctors who are readily accessible and who would practice in well-organised teams devoted to quality. Accessibility would be provided through personal encounters, videoconferencing, email or whichever method of interaction is most convenient or needed at the moment.

Practices would be structured in a way that most effectively and efficiently meets the needs of patients and those who work in the practice – no waiting times; respectful, confidential and competent service; evaluation mechanisms to continuously assess and improve quality; practice policies and outcomes that are rational and readily available to patients.

In the not too distant future, family doctors will likely spend more time with patients during in-person encounters, perhaps 30-60 minutes. They will use such encounters to enhance their relationship, conduct detailed personalised inventories and risk profiles and provide individualised health advice and counseling. While family doctors may only have 6–8 individual patient visits or consultations in a day, they will interact daily with dozens of patients. Increasingly, they communicate through group visits, which bring together groups of patients with a common condition or concern; through telephone, email or other electronic communications; and practice outreach efforts in the home or other community settings.

Electronically based information systems will provide real-time analysis of patient problems and offer diagnostic and treatment possibilities as patient complaints, signs and findings are entered. These options will be searched from a continuously revised databases of local, national, and perhaps international, disease-specific information reflecting the aggregate experience of other patients managed with similar conditions. Such data will be collected through practice-based research networks and be carefully protected for privacy, while systematically searched for new generalisable knowledge.

Electronic decision support tools will bring the world's knowledge on a particular problem to the patient encounter in a timely and user friendly manner. The family doctor will also have available community-specific data that will facilitate efforts to prevent or control certain conditions in the population through community-based strategies. Care across the system will be seamless and well coordinated; the boundaries between personal and public health will blur.

The continuous journey

We help each other on this continuous journey. Impossible outcomes become possible when the aspirations and efforts of patients, caregivers, funders and policy makers converge and complement each other. What can seem impossible at the outset becomes real as talented and committed people are brought together to pursue a shared vision.

As each coil in the quality spiral is successfully completed, it is important to pause, share lessons learned and celebrate. It is during these moments of reflection and celebration that teams are solidified, new alliances formed and new plans developed for future journeys. In our journey to continuous quality improvement, every ending, every short-term destination, represents the beginning of the next cycle or journey. It becomes the journey of a lifetime, and the road well traveled.

Travel Tips

- Start where we are, begin with what is possible and use what we have.
- At the outset, choose single destinations that are likely to be reached.
- Travel in teams, develop systems and coordinate and integrate efforts with others.
- Share our travels and celebrate our journey.



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Useful Internet addresses

- www.agreecollaboration.org
Guidelines research network, with instrument for the appraisal of guidelines.
- www.ahrq.gov
Agency for Healthcare Research and Quality. Much useful quality material and links and a guideline clearing house providing structured descriptions for hundreds of guidelines.
- www.cche.net
Canadian Centres for Health Evidence. Good material supporting critical appraisal of literature and evidence-based care.
- www.cochrane.org
Cochrane Collaboration. Preparing, maintaining and promoting the accessibility of systematic reviews of the effects of healthcare interventions. Links to abstracts of reviews.
- www.ihl.org
Institute for Healthcare Improvement. Provides models from industrial engineering applied for health care.
- www.isqua.org.au
International Society for Quality in Health Care. Performance indicators and links to quality health care sites.
- www.medcertain.org
Project to establish an international trustmark for health information in the Internet.
- www.sign.ac.uk
Scottish Intercollegiate Guidelines Network. Some fifty evidence-based guidelines and much useful material for guidelines development.
- www.sos.se
Swedish Board of Health. Links to reports of their quality registers, also in English.
- www.who.org
World Health Organisation
- www.wonca.org
World Organisation of Colleges, Academies and Academic Associations of General Practitioners / Family Physicians. Links to working groups such as EQiP, QIFM, etc.